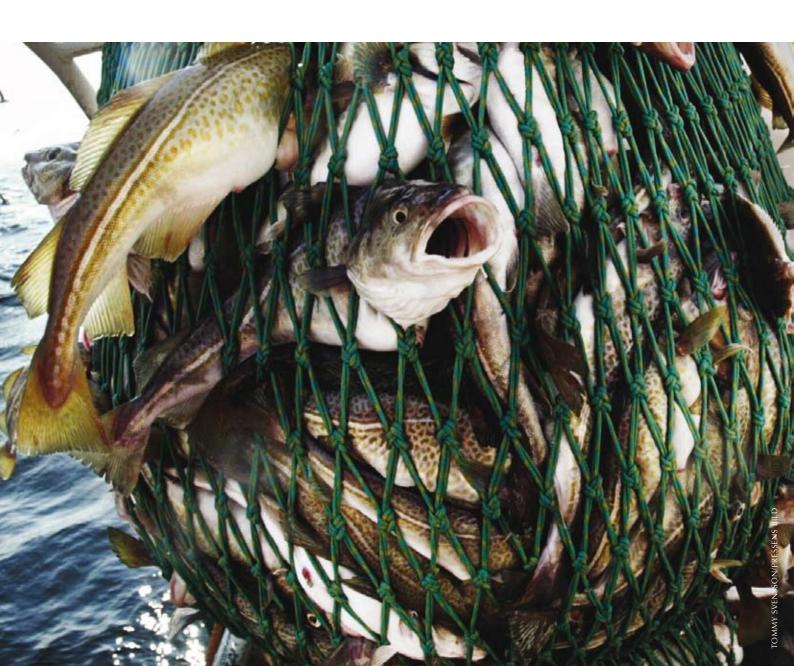


A report on IUU fishing of Baltic Sea cod

A report commissioned by FISH from ORCA-EU



A report on IUU fishing of Baltic Sea

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Preface

In 2005, the Fisheries Secretariat (FISH) commissioned a study into illegal, unreported and unregulated (IUU) fishing in the Baltic Sea to inform its existing and future work. In particular, FISH was interested in how NGOs might be best able to contribute to improving compliance.

As a result of this study, a report was produced that was intended for internal use. However, with the heightened interest in IUU fishing associated with the Baltic Se cod fishery, FISH has decided to publish an amended version of the report. We hope that it will contribute to a better understanding of some of the issues associated with the illegal fishing problem in the Baltic Sea cod fishery.

The report is based on a review of the available literature on IUU fishing within the Baltic Sea region, informal meetings/interviews with individuals with an active interest in the Baltic Sea cod fisheries, as well as a review and analysis of the EU fisheries policy and regulatory frameworks for control and enforcement that apply within the Baltic Sea.

Executive summary

The cod fisheries in the Baltic Sea have gained notoriety for non-compliance with fisheries regulations. This is commonly referred to as illegal, unreported and unregulated fishing or IUU fishing. IUU fishing is seen as the major contributor to the unsustainable exploitation of the cod stocks, particularly in the Eastern Baltic Sea, so much so that this stock is now threatened with collapse.

This report is divided into two parts. The first describes the results of the literature search and presents the views expressed by participants of the informal meetings/interviews. The second part provides a summary of the policy and regulatory frameworks that are in place and provide the basis for Member States to implement European fisheries policy.

Published information

Limited literature is available that describes or quantifies the IUU fishing within the Baltic region. The International Council for the Exploration of the Sea (ICES) has attempted to take account of the quantities of unreported landings within its fisheries assessment advice to the European Commission. Using a variety of sources that includes fishermen, fisheries inspectors and first-hand observations by fisheries scientists, it is estimated that in the Eastern Baltic, 35-45% more cod is landed than reported.

Other recent reports and news articles suggest that possibly even larger quantities are landed. However, owing to the clandestine nature of the activity it is not possible to confirm without doubt what the quantities might be.

IUU fishing activities

In discussions with a broad section of individuals with an active interest in the cod fishery ten forms of IUU activity were cited. There was a consensus view that unreported landings were the most significant IUU fishing activity. These

appear to be more prevalent at different times of the year, from year to year and within certain fleet sectors, such as trawl and gillnet fisheries. For example, tighter quota restrictions would likely lead to increases in unrecorded landings; area closures would coincide with apparent failures in VMS; and, a strong year class entering the fishery could result in increased landings of undersize cod.

Poland was seen by many as the "bad boy" in the Baltic, but those Member States that have the lion-share of the total allowable catch were also implicated.

The cause of IUU fishing

In simple terms, the cause of IUU fishing was described as a function of fleet overcapacity, declining quotas, an inability to effectively monitor and control the fisheries, high consumer demand and high economic value. In part or as a whole, these create an added incentive to fish.

Further detailed analysis offered by a Danish study concluded that the following are all factors that influence compliance:

- the likely economic gains to be had from cheating;
- the risks of being detected and the severity of the sanction;
- compatibility between the content of fishing regulations and fishing patterns/practices;
- long-term non-compliant behaviour becomes 'normal' behaviour such that moral standards are affected.

How to reduce IUU fishing

Reducing fleet capacity was seen as an important factor that would likely reduce IUU fishing. Some fishing industry representatives from the 'older' Member States considered that their national fleet capacities are more in line with their quotas and that this balance needs to be quickly

achieved by the new Member States. Indeed, significant decommissioning, relative to their fleet size, is taking place in the four new Member States. However, what would constitute a more realistic balance between the capacity of national fleets and the cod resource was a question that nobody was able to answer.

There was a consensus that an increased likelihood of effective inspection combined with the application of sanctions that provide a real deterrent would significantly reduce the level of unreported catches. Political will and commitment by Member States administrations is a prerequisite for this to happen. Many people, including officials within national and European institutions, are of the view that politicians are guilty of only paying lip-service to this problem.

The ability to freely trade in fish from IUU sources was seen as a major challenge and also an opportunity to significantly reduce IUU fishing by application and enforcement of traceability throughout the fish supply chain - from the sea to the consumer. It was suggested that because such large quantities of unreported cod are being landed it is almost impossible for anyone dealing in large quantities of cod to be 100% confident that their fish is bone fide. While EU regulations require traceability, there appears to be limited monitoring and enforcement of this aspect. The ability to conduct in-depth 'forensic' auditing was highlighted as a necessity to ensure improvements in combating the market in illicit cod. At present, however, the Member States' fisheries inspectorates have limited capability for this.

Inadequate use of existing technologies was highlighted as a weakness in control, monitoring and enforcement. The use of Vessel Monitoring Systems (VMS) was seen as being less than effective, with the European Commission highlighting its concerns that the Member States were not using it to its full potential. Also, the introduction of electronic logbooks was seen as a potential improvement in insuring that real time recording of catch data could be used to more effectively target enforcement efforts.

It was suggested that the relationship between scientists and fishers could and should be improved, and that it could indirectly contribute to improved compliance. Examples of how this had been achieved in the North Sea were highlighted as being positive experiences for both fishers and scientists, although there was no evidence or feeling that this had yet contributed toward improved compliance.

Can ENGOs help to reduce IUU fishing?

The majority of respondents considered that environmental non-governmental organisations (ENGOs) have a legitimate right to engage in the IUU fishing issue. There was a general consensus that IUU fishing could be significantly reduced if there was the political will to achieve it. Public opinion is seen as the best way of creating or influencing this political will, and ENGOs were seen as being particularly good or well equipped to undertake this role. There is a clear emphasis that if ENGOs were to engage in this subject, they need to be very clear and up-to-date with the issues. In particular, respondents involved in enforcement highlighted that ENGOs need to understand the practical difficulties that are associated with control and enforcement.

The development of the Baltic Sea Regional Advisory Council (BSRAC) is seen as particularly important for ENGOs to use to highlight and attempt to influence the Commission and others in improving compliance. Although, it was emphasised that this is not a platform or stage from which to launch or present campaigns, rather, it provides an appropriate forum to discuss policy and practical measures in reducing IUU fishing.

The policy and regulatory framework

The Baltic Sea fisheries were managed under the auspices of the International Baltic Sea Fishery Committee (IBSFC) until 2005. Following the accession of Poland, Latvia, Lithuania and Estonia to the European Community in 2004, only the EU and Russia remained in the IBSFC. In 2005, the Community withdrew from the IBSFC and the organisation ceased to exist at the end of that year. Bilateral agreements between the EU and Russia have since been adopted and EU regulations and management measures are replacing those agreed within the IBSFC, including a proposed multi-annual plan for cod in the Baltic Sea.

Creating a culture of control and compliance

The reformed Common Fisheries Policy (CFP) provides a new framework for a Community

control and enforcement system which, in summary: clarifies the responsibilities of the Member States and the European Commission; is designed to ensure that compliance with the rules of the CFP is achieved; and ensures that exploitation of the fish stocks is controlled throughout the whole fisheries chain.

In order to take forward the new control and enforcement framework, the Commission has undertaken a programme of work intended to better integrate and coordinate Member States.

The Commission is of the view that there has been improvement on each. However, some of the new Member States are still finding it hard to meet all the basic requirements, mainly as a result of resource constraints. Some of the other Member States are facing cutbacks or caps on resources and so this has meant that progress has been slower than might have been hoped.

As well as the inspection and monitoring work undertaken by the Commission, a Community Fisheries Control Agency (CFCA or "The Agency") has also been established and was due to begin its operational activities in 2007. The overall aim of the CFCA is to support Member States in their control and enforcement efforts.

According to the Agency's work programme it will concentrate on organising coordination of control and inspection by Member States on a fishery-by-fishery basis, apparently covering all stages of control and inspection of fishing activities from fishing to the first sale of fish landed or entering the Community market. Fisheries subject to recovery or multi-annual plans and high levels of IUU fishing are two criteria that

the CFCA identify as priorities and so means that the Baltic Sea will likely be the subject of their attention.

In order to improve transparency with respect to control and enforcement, the Commission publishes a compliance scoreboard, a serious infringement report and tri-annual evaluations.

All of these publications provide a means by which comparisons between Member States can be made and inference drawn as to which are "good" and "not so good" at meeting their CFP obligations. However, from the publications to date it is difficult to draw any firm conclusions with respect to the Baltic Sea. As a result, there is little reassurance that, at both the Member State and the Commission level, effective systems are in place to improve or report on compliance.

The regulatory framework for the cod fishery is less complex compared to the North Sea and has an emphasis on improving the chances and accuracy of inspection. A suite of technical and control measures are used. However, there is concern that these are not being effectively implemented.

In its role of 'monitoring the monitors', the Commission undertook an evaluation of how Member States have implemented technical and control measures in the Baltic Sea in 2005/2006. Publication of the report has been delayed until 2007. The report is expected to provide clear indicators as to how key control and monitoring measures are being implemented as well as an assessment of their effectiveness. Initial indications suggest that fundamental flaws exist in some of the Member States.

Part I

Describing and quantifying IUU fishing for cod in the Baltic Sea

Introduction

Scientific advice from the International Council of the Exploration of the Sea (ICES) has indicated that the two cod stocks in the Baltic Sea are suffering from unsustainable exploitation levels. The Eastern stock has declined in size to a point where it may not be able to replenish itself and is considered to be threatened with collapse. The Western stock is in a better state but is also subject to high levels of fishing that mean that the yields from the fishery are lower than their potential level.

Combined with less favourable environmental conditions the ability of the two Baltic Sea cod stocks to increase or, minimally, sustain themselves is further compromised.

The cod fisheries in the Baltic Sea have gained notoriety for non-compliance with fisheries regulations. This is commonly referred to as illegal, unreported and unregulated fishing, or IUU fishing. IUU fishing, particularly in the Eastern Baltic, is seen as the major contributor to the unsustainable exploitation of the cod stocks.

In order to better understand IUU fishing in the Baltic and the measures that are in place to counter the problem the study:

- Undertook a review of the available literature on IUU fishing within the Baltic region;
- Conducted informal meetings/interviews with individuals with an active interest in the Baltic Sea cod fisheries; and,
- Reviewed and analysed European fisheries policy and regulatory frameworks for control and enforcement that apply within the Baltic Sea.

The report is divided into two parts. The first describes the results of the literature search and

presents the views expressed by participants of the informal meetings/interviews. The second part provides a summary of the policy and regulatory frameworks that are in place and provide the basis for Member States to implement European fisheries policy.

Published information

An Internet search revealed quite an extensive and relatively recent source of literature on IUU fishing, the majority of which focuses on the high seas. In contrast, very limited peer reviewed and/or "grey" literature has been published that attempts to describe and/or quantify IUU fishing in the Baltic Sea. The following section summarises the most recent and readily available information on IUU fishing for cod in the Baltic Sea, as well as provides comment and analysis.

The International Council for the Exploration of the Sea (ICES)

The International Council for the Exploration of the Sea (ICES) officially recognises the serious level of IUU fishing in the Baltic Sea cod fishery, particularly within the eastern Baltic. ICES describes the main IUU problem as, "...misreported landings, mostly in the form of unreported landings". It suggests that restrictive quotas, the absence of fishing opportunities and inadequate inspection are the main causes, with the circumstances being different in different Member States.

Because the problem is considered to be so significant, the ICES Baltic Fisheries Assessment Working Group has included its own estimates of unreported landings in its annual reports since 1993, referring to them as "unallocated quota", and has highlighted that the scale of unreported landings has severely compromised its assessments.

The Working Group uses information from fishermen, at-sea-sampling and fisheries inspectors, as well as comparisons between import and export data to estimate the "unallocated quota".

In 2005¹, the Working Group chose to present two stock assessments to the ICES Advisory Committee on Fishery Management (ACFM) based on the official reported landing figures as well as their own estimated landing figures, and left it to the ACFM to decide on which to use (if at all) in their advice to the European Commission. ACFM chose to provide both².

In the preamble to its 2005 assessment, the Working Group emphasised that it would not disclose the estimates or the sources of the problem that particular Member States may provide. The reasons for its decision included not wanting to compromise the trust that has been established between fishermen and scientists or cause political problems if estimates are seen to be different from the official figures, as well as the possibility that Working Group members may lose their jobs (presumably as a consequence of the former reason).

However, in order to provide some transparency and repeatability in the assessments, the Working Group has chosen to use, what it terms, a "raising factor" (RF) which provides an estimate of the unreported landings year on year, without highlighting a particular Member State. For example, an RF of 1.40 implies that the Working Group estimates that landings are 40% higher than the official figures. Groupings of one or more countries are given an RF value based on the information they bring to the table, as follows:

Group A, based on informal contacts with the industry, is provided with a RF of 1.2.

Group B, based on information from informal contacts with industry and enforcement sources is given a RF = 1.5

Group C is based on information available from at sea-sampling, formal and informal contacts with the fishing industry, and inspection of import/export records. Taken together these sources of information indicate total catches about 100% greater than the reported figures, resulting in a RF of 2.0.

Group D, for which either no information is available, or information indicates no or negligible misreporting, is provided with a RF of 1.0.

Table 1. The Baltic Fisheries Assessment Working Group overall RF for cod landings from the eastern Baltic between 2000 and 2005

Year	2000	2001	2002	2003	2004	2005
RF	1.35	1.35	1.35	1.45	1.41	1.38

Source: The report of the ICES Baltic Fisheries Assessment Group (WGBFAS), 18-27 April 2006, Rostock

Using these RF figures against the reported landings, the estimated quantities of unreported cod landings have remained relatively stable for the last 6 years, averaging just over 20,000 tonnes. However, the 2005 Working Group report stresses that the estimates are "considered to be substantial underestimates of the true catches (recent misreporting estimates imply that true catches have been at least 40% greater than reported catches)".

For comparison, in Table 2 below, reported landings of cod from the Baltic Sea between 2000 and 2005³ are set out, along with ICES estimates of total landings and unallocated quota.

Table 2. A comparison of Member State reported landings and ICES estimates of total landings and unallocated quota for the Eastern Baltic.

Year	2000	2001	2002	2003	2004	2005
Reported landings	66,171	67,651,	49,456	49,239	49,015	40,041
ICES estimate of total landings	89,289	91,328	67,018	71,386	68,578	55,032
ICES estimate of un alloca- ted quota		23,677	17,562	22,147	19,563	14,991

Source: Adapted from the report of the Baltic Fisheries Assessment Group (WGBFAS), 18-27 April 2006, Rostock

Comment and analysis

Owing to its clandestine nature, estimating the level of IUU is extremely difficult. For a pre-eminent advisory body like ICES, which bases its advice on best available science, the willingness to use empirical and anecdotal information on IUU fishing to inform its advice makes a pointed statement about the scale and seriousness of the problem and emphasises the significance with

which it has undermined their ability to provide scientific advice.

Also, the fact that national experts and advisors are not willing to go public, because they might loose their jobs, confirms the highly political nature of Baltic Sea fisheries management and, more specifically, IUU fishing.

There is a danger that continuing to attempt to account for misreporting will contribute to a decline in the quality of the data and, therefore, in the quality of the resulting stock assessment. In addition, accounting for misreporting in the assessment could also create incentives for further misreporting, as a higher estimated catch is likely to lead to a higher estimate of stock size and thus increased catching opportunities in the future.

The Working Group has provided estimates of unallocated quota since 1993. The continued need to do so and the apparent stability in its estimates over the last 5 years suggests that Baltic States are unable, unwilling or not seriously committed to effectively reducing the IUU fishing problem.

Worldwide Fund for Nature (WWF) report

The WWF European Policy Office commissioned a report on IUU fishing in the Polish Baltic Sea cod fishery in 2005. WWF chose not to publish the report but allowed access to it for the purpose of this project. Poland was chosen as the focus owing to common and consistent allegations, made by people within or associated with the Baltic Sea cod fishing industry, of non-compliance by the Polish cod fleet.

Having spoken with the authors, the report provided them with a significant challenge, primarily due to difficulties in gathering credible and substantiated evidence. Despite this, the report highlights two pieces of work, one of which is referenced, which provide additional insight into the potential IUU problem.

The Marine Institute in Gydnia, Poland, produces a quarterly publication called "Wiadomosci Rybackie" (Fisheries News) which is aimed at the fishing industry and those with an interest in the fishing industry. In the March-April 2005 edition⁴, an article compares import and export figures for cod and cod products with reported

landing and national consumption figures. The results show a discrepancy in export figures equivalent to 49,000 tonnes of whole cod.

The inference is that this discrepancy was caused by unreported landings which, if it were true, would be over 3 times the reported national annual landings. Table 3 below shows the figures that appear in the article. The WWF report attempted to analyse import and export data but found that detailed information on whole cod or cod products was difficult to obtain. The report recommends that further information needs to be gathered before a definite conclusion can be drawn.

The un-referenced work that was mentioned refers to a study carried out by the Swedish fishing industry in 2002. Using non-scientific comparison between like-for-like fishing vessels and information on working practices provided by Polish crew working aboard Swedish and Danish fishing vessels, the study speculates that in 2003 all the Baltic States and Russia could potentially have exceeded their combined quota by as much as 4 times, and that Poland could have exceeded it by as much as 8 times. This would suggest an unbelievable and unrealistic figure in excess of 350,000 tonnes.

Table 3. Showing the reported import, export, landing and national consumption figures of cod for Poland in 2003

Reported Figures for 20	003
Reported landings of cod	15,100 tonnes
Imported quantities of cod	18,000 tonnes
Polish national consumption of cod	18,000 tonnes
Exported quantities of processed cod	23,000 tonnes
(Estimated live weight equivalent)	65,000 tonnes
Difference	49,000 tonnes

Comment and analysis

The report provides a wide-ranging estimate of the levels of unreported cod landings, which serves to show the difficulties in accurately estimating the scale of the problem. The analysis of official statistics is considered to be a good way of highlighting discrepancies; indeed, this is used to inform some of the ICES estimates. However, uncertainty as to which sources of information are likely to be the most appropriate and calculating "whole cod equivalent" from the variety of cod products (e.g., frozen filets, steaks, etc.) are two significant problems with this approach.

For the purpose of this report, an analysis of the latest trade statistics⁵ and attempts to compare landing and national consumption were undertaken for all the Baltic Member States. The attempt only proved to confirm the difficulties that the authors of the WWF report experienced and it was decided that this was a study in its own right.

Rather than concluding a likely figure and further contributing to the uncertainty of how much cod is being caught and landed, a safer conclusion from the WWF report is that the Polish cod fishery appears to be a significant contributor to the overall IUU fishing problem in the Baltic Sea.

Institute for Fisheries Management (IFM) study

In 2003, two researchers – Jesper Raaker Nielson and Christoph Mathiesen – from the Institute for Fisheries Management and Coastal Community Development (IFM) published a research paper⁶: "Important Factors Influencing Rule Compliance in Fisheries – Lessons from Danish Fisheries". Their research focused on three Danish fisheries, one of which included the Baltic Sea cod fishery. They undertook a quantitative and qualitative survey asking fishers opinions and views on their acceptance of imposed fisheries regulations and their respect for the management system. Of those questioned in the Baltic fishery:

- 98% said that the profit from the allocated quota has a major or medium impact on their compliance behaviour, i.e., when profits from legitimate fishing are good the incentive for IUU fishing is reduced. However, there was an added caveat that some fishers (2–5%) would continue to fish after catching their quota if the probability of detection was low;
- 90% said that the risk of detection compared to the economic gain from IUU fishing has major or medium impact on their compliance behaviour, giving a strong indication that economic incentive is the driving force behind non-compliance in the Danish fishery;
- 88% considered it morally wrong to discard dead fish even if they had exceeded their quota;
- 85% said it was morally wrong to violate minimum landing sizes;
- 20% said it was wrong to land more than their allocated quota;
- 77% completely or partially agreed with clo-

- sed areas to protect fish from overfishing;
- 57% completely or partially agreed that days-at-sea regulation is a better measure to regulate the fishery than closed areas; and
- 90% said that practical difficulties to comply with regulations have a major or medium impact on their compliance behaviour.

The report concludes that, in Danish fisheries, the following factors have a major impact on compliance:

- the economic gains to be obtained;
- the risks of being detected and the severity of the sanction;
- compatibility between the content of the regulation and fishing patterns/practices;
- "norms"⁷, in particular, the behaviour of other fishers and the moral of the individual fisher; and
- co-management is important for rule compliance.

Comment and analysis

Unfortunately, this paper was not found and reviewed until the very late stages of the study and so it was not possible to discuss the work in detail with the authors.

While this research did not aim to describe or quantify the IUU problem within the Baltic cod fishery, it did attempt to look at factors that influence the behaviour of fishermen and highlight some important attitudes and behavioural reaction to rules and regulations.

Only 56 fishers were interviewed in the course of the study and there is no indication as to how many of these represented fishers from the Baltic Sea cod fishery. With nine nationalities and their different economic, social and cultural differences, a similar study across the Baltic could provide some interesting comparisons and potentially informative results that may contribute to better or more informed management approaches and decisions.

"Gazeta Wyborcza" – Polish newspaper

In the May 4th 2006 edition⁸ of the Polish newspaper "Gazeta Wyborcza", an article appeared under the headline "Big Cod Fraud". Representatives from the Polish Fishermen's Association and

the Association of Fish Processors were reported as confirming large scale catching and trading in illegal cod.

The article reports that the lack of inspection, the large number of licensed fish buyers and the numerous places where the first sale of fish is possible make it easy for fishermen to land unreported cod and for illegal fish to enter the supply chain – as much as 80% of the cod that goes to processors is claimed to be illegal.

Comparisons of the 2004 Polish cod quota and the export of Polish cod products were used to show apparent discrepancies: 16,000 tonnes cod quota v 52,000 tonnes of exported cod products, which could equate to as much as 70,000-100,000 tonnes of whole cod.

Apparently, attempts to establish larger state owned auctions have had limited success and are not profitable as the supply of legal fish is limited. The Chairman of one of these auctions is reported as saying that EU money has been made available to support the building these large auctions but they are not profitable because of low quotas and their inability to trade in illegal fish.

While Poland and Sweden were given particular mention, according to a representative from the Sea Fisheries Institute in Gdynia, all countries exceed their national cod quotas. He also proposes that a considerable increase in the quota but with longer closed seasons is a solution to the problem.

The Chairman of the Fishermen's Association is reported as blaming inadequate quotas as the reason for illegal fishing. He says that fishermen know that there is more fish in the sea. He is also reported as saying that fishermen only catch mature fish and highlights that small mesh industrial fishing carried out mainly by the Danes and Swedes catches everything.

Comment and analysis

If this newspaper article is accurate and the individuals have not been mis-represented, then it is a scathing self-analysis and admission of the illegal fishing problem in Poland.

Comparing exports with the annual national quota to provide an estimate of unreported fishing may be misleading. It does not take into

account the significant quantities of cod that are imported into Poland (see table 3 above).

The article seems to suggest that the state-owned auctions restrict the sale of illegal fish. While the consequence of this may be to compromise their ability to compete with other auctions, it does raise the question as to how they are able to achieve this.

Personal perspectives and opinions on IUU fishing for cod in the Baltic Sea

A series of informal meetings with individuals with an active interest in Baltic Sea fisheries took place throughout the course of the project. Fishermen/fishermen's representatives, fish processors, fisheries inspectors and fisheries scientists were targeted as they were considered likely to know most about the IUU fishing problem. A number of individuals within environmental nongovernmental organisations (ENGOs) with either experience of working with IUU and/or Baltic Sea fisheries issues were also contacted, as were a number of academics that had previously conducted research on Baltic Sea fisheries. Latterly, a meeting was held with investigative TV journalists who had undertaken work on IUU fishing in the Baltic Sea and, more recently, the Barents Sea.

Methodology

In preparation for these interviews, the literature and Internet search described above enabled a profile of each of the EU Member States' and the Russian Federation's fishing industries to be drafted and provided an important source of background information. These profiles are presented in Annex I.

A list of general and more specific questions, the latter being tailored to particular target groups, was prepared and formed the basis of an informal interview. Depending on the answers to these questions, supplementary questions were asked. It should noted that the questions were not part of any analytical framework that allowed for objective analysis and conclusions to be drawn; rather, it was purely a subjective process but one that was considered to provide better understanding of the IUU fishing problem.

Face-to-face interviews, phone interviews and written responses through email correspondence

were all used. Face-to-face interviews were the preferred and most common option. The interviews lasted anywhere from 1–4½ hours, the length of time largely determined by the participants' time constraints. The majority of meetings were one-to-one, but as many as six people were involved in any one interview.

In total, 80 people were contacted, including representatives from all the Baltic Member States and the Russian Federation. Of these, 52 were able or willing to provide a response to some or all of the questions. All participants were assured that any information or views that they expressed would be non-attributable.

It should be noted that of the three key groups that were initially identified, fishermen and/or fishermen's representatives were comparatively under-represented. This was mainly a result of language barriers.

Describing the IUU fishing problem

From the responses received it was possible to draw up a list of IUU fishing activities for cod (see Table 4). Participants that were able to provide more detailed information on these activities suggested that they were likely to be more prevalent at different times of the year, from year to year and within certain fleet sectors, such as trawl and gillnet fisheries. For example, with the uptake of the Total Allowable Catch (TAC), tighter quota restrictions would likely lead to increases in unrecorded landings; area closures would coincide with apparent failures in VMS; and, a strong year class entering the fishery could result in increased landings of undersized cod, particularly in trawl fisheries owing to the less effective size selectivity of this gear and/or deliberate rigging to reduce mesh size.

Table 4. A list of the IUU fishing activities associated with the Baltic Sea cod fishery described in interviews

IUU fishing activity

- 1. Unreported landing
- 2. Mis-recorded landing
- 3. Tampering with Vessel Monitoring System (VMS)
- 4. Trans-shipment
- 5. Late return of logsheet and landing declaration
- 6. Fishing in closed areas
- 7. Landing undersized cod
- 8. Small mesh size or illegal rigging of gear
- 9. "Targeted" bycatch
- 10. Exceeding 48 hour soak time for gillnets
- 11. Fishing without a special permit

The following section provides information on each IUU activity and is based upon views and information that was provided by participants.

Unreported landings

Without exception, unreported landings were considered to be the most serious IUU fishing activity owing to the scale and likely consequences for the long-term sustainability of the Eastern Baltic cod stock. All Member States were implicated but responses suggest that the top three offenders are those with the "lion-share" of the TAC: Denmark, Sweden and Poland.

In the course of interviews, the majority of participants who were willing to estimate the likely quantities of unreported landings suggested that 45–60% more cod was landed than reported. Those that expressed a view said that the only sure way of reducing this problem is to inspect a significant proportion of all the cod landings.

Measures designed to reduce the likelihood of unreported landings, such as designated ports, were considered to be limited - large ports can provide for many landing sites and so make it difficult for inspectors to cover all possible options. Specific points and times for landing were recommended as possible improvements.

In Denmark and Sweden (and quite likely in other countries too), avoiding inspection results in a "cat and mouse" game between skippers and inspectors. Some fishermen have their own counter measures and tactics to ensure their landings are less likely to be inspected. It is relatively easy to have "look-outs" in ports and harbours, outside offices and even the homes of inspectors to forewarn of any likely inspection activity. Mobile phone scanners may also be used to monitor conversations between inspectors.

In Poland, the likelihood of inspection has been low. As a result, fishermen have not needed to be as organised or sophisticated in their avoidance tactics. The lack of manpower in the three regional fisheries inspectorates, combined with limited resources (e.g., mobile phones have only been made available to them in the last year or so), has meant that effective and coordinated inspection has been difficult.

The reality of fisheries inspectors living within

or close to fishing communities was highlighted as a potential serious impediment to effective monitoring and application of EU rules and regulations. Furthermore, the civil service salary that fishery officers are paid often belies the role, function and conditions within which they are expected to operate. An individual able to work in intimidating circumstances, understand complex European legislation, and effectively gather and present evidence needs to be of a high calibre. To attract and retain such individuals requires appropriate remuneration and is something that a civil service salary does not necessarily provide.

It was also noted that owing to the civil service status of fisheries inspectors, their ability to fit their working hours around an industry that does not operate within normal working hours created an additional challenge. Limited funds to cover unsocial working hours and over-time, combined with time-off-in-lieu, the necessity to work in pairs and/or teams, means that enforcement coverage can be significantly reduced. The fishing industry is fully aware of these constraints and able to adapt quickly to counter any changes in inspection patterns or priorities.

Also, physical inspection time is significantly reduced owing to the administrative burden that inspectors have to deal with. Up to 50% of their time can be spent cross-checking log sheet, landing declaration and sales note information, and inputting data onto the catch administration system.

In Poland, there appeared to be a general acceptance by those responsible for control and enforcement as well as the fishing industry that there is a significant under-reporting of landings. In contrast, the official and industry views in Sweden and Denmark were much less accepting of a potential problem.

Unreported landings in Poland were commonly estimated to be two to three times more than the reported landings. Given that members of fisheries inspectorates were among those that provided these estimates there may be some credence or validity in this figure. No estimate was offered for either Sweden or Denmark other than remarks that suggested that, at times, the problem was not insignificant.

Opinion both from within and outside of Poland talked of a culture of non-compliance within the Polish fishing industry. It was suggested that together the political history of Poland and the determined characteristics required to be a fishermen have contributed to this culture. "Beating the system" has become habit, a way of life or even a "badge of honour".

Furthermore, the economic benefit that was promoted before joining the EU has not been realised by many in the fishing industry. This has hardened the resolve of many and created a militant element that seek political influence. It was reported that distinct groupings in the Polish cod fishery are beginning to form. The more radical and forceful groups appear to have become more politically influential, both at national and EU level, and appear to have seized the opportunity to try and influence their government and ensure they protect and not negotiate down their fishing interest.

One of these groups was reported to have met with Commissioner Borg when he visited Poland in 2005. During their meeting, the fishermen apparently handed the Commissioner their "real landing figures". Their intention being, to ensure that these were taken into account when setting the proposed TAC for 2006. Whether this had any effect is difficult to say. However, in discussion with Commission officials it was clear that they wanted the starting point for their proposed multi-annual cod plan (see page 21) to match the reality of the fishery, and the 2006 TAC was set at a level that some observers considered higher than would have been reasonably expected.

Mis-recorded landings

Mis-recorded landings were described as being different to unreported landings. It refers to the practice of deliberately under-estimating the landed weight of cod and, in some instances, the recording of cod as another species. This can only happen when fishing vessels are not or are improperly inspected.

The reason for mis-reporting a landing as opposed to not reporting is not entirely clear. It could be a way of lessening the potential for attracting attention to a vessel's activity; it could also be indicative of the guilt that some skippers undoubtedly feel when they break the rules.

An overfilled box of cod can contain significantly more than its apparent volume would suggest. The weighing of boxes on landing is required by EU regulations; however, ensuring that certified scales are available is not always a realistic option for inspectors. Unless a landing inspection is continued at the point of first sale, where there is a possibility of more accurate weighing, the skipper merely has to ensure that the sales note or landing declaration that accompanies his logsheet indicates that his landing was within 8% of his estimated figure.

Mis-recorded landings were considered to be a more common practice when multiple landings were taking place and inspectors were only able to count boxes being discharged from vessels, rather than undertake a full inspection and weigh sample boxes.

Tampering with Vessel Monitoring System (VMS)

Apparently, it is common practice to smother the VMS transmitter with a metal object, such as a bucket, so it is unable or its ability disrupted to transmit. One fisheries officer reported that sometimes there are tell-tale signs as the exhaust soot that can settle on the VMS transmitter antennae can show signs of having been disturbed. More subtle measures have also been employed, an example being the use of a syringe to inject fluid into the "tamper-proof" VMS equipment rendering it inoperable.

Tampering with the VMS should attract the attention of the national inspectorate. However, the odds are in favour of the vessel making an unreported landing before being inspected. Also, notification of vessels not transmitting does not always get passed down to inspectors on the coast or at sea in time to allow for preventative measures to be put in place. While a skipper might run the risk of a delay in returning to sea, owing to the authorities wanting to ensure that the system is functioning correctly before the next fishing trip, the financial benefit from an unreported landing is likely to be worth the attention or the inconvenience.

Trans-shipping

Trans-shipping (i.e., the transfer of cargo between vessels at sea) of cod is not permitted under EU fisheries regulations. However, two

different forms of trans-shipping were described by a number of participants. The first involves trans-shipping of cod from the catching vessel to a vessel that is unlikely to attract the attention of fisheries inspectors. It was suggested that this was an occasional but, at times, common practice in a number of Member States. To avoid attention and suspicion, skippers would be sure to land and record some cod, but a significant part of their catch would be trans-shipped beforehand.

The only way of effectively combating transshipping is to observe the activity and inspect the vessels while at sea.

The second example involves a specific case, where fisheries inspectors suspected that cod was being transferred to Russian Federation vessels under the guise of licensed pelagic "klondyking". Pelagic vessels were suspected of trans-shipping catches that had high levels of cod bycatch. However, it was not possible to undertake an inspection as the coastguard vessels were deployed on higher priority tasks.

Late return of logsheets

It seems likely that late return of logsheets and landing declarations is the most common and widespread breech of fisheries legislation. However, even though it is a key factor in determining the uptake of individual and/or national quota, it is also considered to be a relatively minor offence.

It is unlikely that many inspectorates would sanction or take an offender to court for a late return of a logsheet, unless there is a consistent failure to submit them within the required 48-hour-period after landing. Rather, the tendency is for late returns to be taken into consideration along with a more serious offence.

It is easy to understand and even forgive a fisherman for forgetting to return logsheets and landing declarations within the required 48-hourperiod. However, reports suggest that late or no returns increase when quota restrictions are more severe. The likely reason for a deliberate late or no return is to allow an individual time to assess the risks of not reporting or providing an inaccurate landing of cod.

Fishing in closed areas

EU fisheries regulations provide for seasonal, temporary and permanently closed areas to all or specified forms of fishing. On occasion, some fishermen are known to deliberately breach these regulations. Indeed, in 2005 Polish fishermen conducted a mass demonstration against the seasonal closure of the cod fishery by fishing during a closed period. However, the extent to which deliberate fishing in closed areas takes place is uncertain.

Unless a vessel is boarded in the act of fishing or without their nets appropriately stowed, it is extremely difficult to prove that they are or have been fishing. While VMS will confirm that a vessel is in transit within a closed area it will not confirm, without reasonable doubt, that it is fishing.

Landing undersized cod

The minimum landing size (MLS) for cod from the Baltic is 38 cm. This means that any cod under this length should not be landed. The catching, retaining and landing of undersized cod was highlighted as an occasional widespread problem and often associated with a strong year class entering the fishery at, or close to, the MLS.

As a result of the comparatively strong 2003 year class, more small cod are presently recruiting to the fishery and this has apparently coincided with an increase in landings of undersized fish. ICES estimate, that in 2004, 47% of the cod caught in the eastern Baltic Sea were 3 years old or younger and 34% were 4 years old.

Individuals involved in discard sampling in Sweden reported that landing of undersized cod was more prevalent in some inshore areas where cod stocks have declined or become less common. Apparently some fishermen have the attitude that they cannot afford to wait for the cod to grow any bigger and/or be left for others to catch.

In Poland, there appears to be a market for undersized cod – or "bolek" – and it was suggested that this was one of the reasons that some apparently good year classes had not resulted in the predicted increase in stocks.

The MLS increased from 33 cm to 35 cm in

2002, with a further increase in 2003 to the present 38 cm. It was suggested that these changes may be a contributing factor in the apparent continued landing of small cod, with some fishermen unable to get out of the habit or mindset of catching and keeping, what are now, undersized fish. Limited or ineffective enforcement plus a market for small cod will likely mean that the landing of undersized cod will continue.

Small mesh size or illegal rigging of gear

The increase in MLS has also been coupled with the required use of more size-selective fishing gear such as the BACOMA trawl. However, with the apparent market and the potential mindset of fishermen to catch and retain undersize cod, instances of rigging fishing gear so that mesh sizes were restricted have been reported.

The gillnet fishery tends to target larger fish and so it was suggested that the landing of undersized fish and the illegal rigging of gear were more likely and characteristic of the trawl fishery.

"Targeted" bycatch

Pelagic vessels are allowed a maximum 3% bycatch of cod. Some vessels are known to occasionally and deliberately exceed this limit. If landing inspection is avoided, then the bycatch will go undetected.

When inspectors monitor the landing from a pelagic vessel, visual inspection and sampling are used to indicate the percentage bycatch. It takes an experienced inspector to be able to estimate the percentage of cod bycatch, particularly as the process of landing pelagic species does not necessarily easily lend itself to inspection. Pelagic species are often rapidly pumped from the fish holds ashore in large quantities. This is in contrast to cod and other demersal species that are commonly boxed and winched ashore. It was suggested that the bycatch would need to be significantly above the 3% before some inspectors have the confidence to suspend a landing and take appropriate action.

Exceeding 48 hour soak time for gillnets

Exceeding the 48 hour soak time for gillness was highlighted as a common complaint by trawler fishermen. It was unclear as to whether this is a

genuine concern for spoiling and wasting of cod left in nets for too long a period, or whether it is more to do with a territorial dispute between mobile and static fishermen.

Fishing without a "special permit"

In order to legitimately fish for cod in the Baltic Sea, Member States are required to issue "special permits" to fishermen. The number of permits is capped in order to ensure that the cod fishery is not subject to any increase in fishing capacity. While it was suggested that in some Member States anybody that had initially applied for the special permit got it, there were still fishermen without them who deliberately targeted cod under the guise of fishing for flatfish, such as flounder, turbot and dab. A 10% bycatch of cod is allowed in these fisheries, but it was suggested that this is exceeded in some regions at certain times of the year. There was a suggestion that smaller vessels are often the culprits as they are less prone to inspections or are not inspected as thoroughly as larger vessels.

Possible future IUU fishing activities

During the interviews, some participants highlighted an additional EU fisheries regulation that may result in further IUU fishing activities: the establishment of two separate TACs in the Baltic (for the western and eastern stock).

The change in the TAC system does provide an opportunity to misreport area of capture. As fishermen start to work within the new system, misreporting may well be used as a way of optimising quota. Depending on in which area they plan to record their catch, vessels with a functioning VMS will have to ensure that they actually enter the western or eastern Baltic. As long as they are not closely monitored, they will be able to log their catch to whichever sea area they like.

What can be done to improve compliance?

In response to this question, the majority of people concluded that there was a need for a reduction in fleet capacity, more forceful deterrents, adequate numbers of well-trained enforcement officers, a greater focus on the first point of sale, better use of existing and new technologies, and an improvement in the understanding and participation of fishers in the scientific assessment process.

The following briefly describes the main points that were highlighted:

Reduce fleet capacity

Fleet overcapacity is considered to be the underlying driving force of IUU fishing for Baltic Sea cod. With limited stocks and increasing fishing costs, fishermen and vessel owners feel forced to break the rules to ensure continued payments on their vessels and a decent living for themselves and their crews.

Capacity will decrease in the Baltic Sea over the next few years. The Accession countries are receiving decommissioning funds that will likely see a significant reduction in their cod fleets. For example, Poland is aiming to reduce its capacity by approximately 40%. In the older Member States, fishing capacity has been "capped" and reduction will likely be left to economics and "natural wastage", though funding for decommissioning is still available. Whether decommissioning money will find its way back into the fishing industry (i.e. decommissioning funds could help fund the buying of licences and new vessels) is uncertain. However, those that expressed an opinion suggested that fishing was not an attractive option for younger people and that EU funds were anticipated to help countries like Poland to develop its economy and create jobs outside of the fishing industry.

Some fishing industry representatives from the 'older' Member States considered that their fleet capacities were more in-line with their quotas and that this balance needed to be quickly achieved by the new Member States.

Improve deterrents

Deterrents to IUU fishing was recognised as a significant shortfall in the present management regime (see page 30). The sanctions imposed for offences are considered to be woefully poor and inadequate to act as deterrents. The time between detecting an offence and bringing it to court was also seen as reducing the deterrent effect.

Of those that expressed a preference, administrative sanctioning rather than a judicial system was favoured. The benefits of an administrative sanctioning system were considered to include administration by people who knew and understood

the fishing industry and, therefore, were more likely to administer an appropriate and proportionate sanction. However, it should be noted that in Poland, where an administrative system is in place, it appears that the majority of sanctions are appealed and, as a result, reduced.

More fisheries inspectors

The number of well-trained fisheries inspectors and the ability to work in a way that responds to the working practices of the fishing industry were considered to be important requirements, particularly with respect to tackling the major problem of unreported landings. There was a firm view that a high likelihood of effective inspection (combined with an adequate deterrent) would significantly reduce the level of unreported catches. It was highlighted that it requires highlevel political commitment and will to ensure that fisheries inspectorates are well resourced and able to effectively combat the IUU fishing problem. Without it, inspectors become disillusioned and their effectiveness and commitment is significantly affected.

Monitoring the trade in cod

A large number of respondents considered that finding out where the IUU cod goes is the key to reducing the problem. There was a strong but unsubstantiated view that unreported cod is landed and transported overland to China where it is processed before returning to the EU market – its origin being lost along the way.

More than half of those that expressed an opinion suggested that, rather than spending large sums of money chasing fishing boats around the sea (particularly with the technological capabilities at hand), resources should be directed toward the traceability of cod and cod products.

Under EU regulations, all buyers and sellers of fish have to be registered, however, there appears to be only limited enforcement activity directed toward them. In Poland, there are an estimated 400 registered buyers of fish, who move between ports buying fish directly from vessels, but the number of inspections directed at them is significantly lower than the number of at sea inspections.

There was some concern raised as to the transparency with which large fish processing com-

panies operated in the Baltic Sea. This concern has not gone unnoticed by the largest buyer and processor of Baltic Sea cod, Espersen Ltd¹⁰.

Information readily supplied by Espersen made it clear that it is very aware that dealing in large quantities of cod will mean that, knowingly or unknowingly, there is a likelihood of dealing with fish that originates from an IUU source. For this reason, as well as European food regulations (e.g. Reg. (EC) 178/2002)¹¹, Espersen has in-place a paper traceability system, which it is satisfied provides traceability of cod before it enters the processing chain.

Espersen buys in the region of 25% of the cod that is caught in the Baltic Sea. This is purchased from approximately 23 companies that buy from an estimated 80–100 vessels operating in Poland, Denmark, Lithuania and Sweden. It is then transported over-land to their filleting and breading plants in Poland and Lithuania. None of the fish is exported to China for processing. Frozen cod is also purchased from the Barents Sea but is not mixed with the fresh Baltic Sea cod during production.

Espersen has contractual agreements with its buyers regarding their supply of fish. For example, cod must be landed in designated ports; have been caught within the quota regime; and, must have been reported in accordance with the appropriate regulations. The agreement explicitly absolves Espersen from receiving illegally caught fish by ensuring that it is the supplier's responsibility to ensure it operates correct business procedures to avoid this happening.

Espersen has recently decided to contract an authorised third party to undertake regular audits of its Supplier Agreement. Also, through its association with the fast-food chain McDonald's, (to whom it supplies all the fish for their European outlets) Espersen has worked with Conservation International¹² on sourcing sustainable fisheries resources.

Better use of technology

With respect to using existing or new technologies, the European Commission highlighted its concern that VMS was not being used to its fullest extent as a monitoring and an enforcement tool by the Member States. Among the problems are:

- Ineffective sharing of VMS information between Member States
- Limited cross-checking of VMS data with logsheets and landing declarations.
- Some Member States are not using VMS data as supportive evidence in prosecution cases
- Closed areas are not being effectively monitored by VMS
- Failure to take action when VMS is not functioning
- Excessive equipment "failure"

Some Member State inspectorates also indicated that electronic logbooks would help to ensure greater compliance, as real-time catch recording would assist shore and sea-based inspections in confirming quantities of fish. However, such a measure would only be effective if supported by adequate inspections.

Scientists and fishermen working together

Finally, a number of participants suggested that for a number of reasons, fishermen were accidentally or deliberately detached from the scientific assessment process. Reasons included: no, limited or misunderstanding of the part which their information plays in the stock assessment process; a lack of cooperation with scientists owing to the association of fisheries science with government; the perceived or real arrogance of some scientists to fishermen; and, the fear that scientists will only provide advice that causes a reduction in their fishing opportunities.

It was suggested that the relationship between scientists and fishers could and should be improved, and that it could indirectly contribute to improved compliance. Examples of how this had been achieved in the North Sea¹³ were highlighted as being positive experiences for both fishers and scientists, although there was no evidence or feeling that this had yet contributed toward improved compliance.

What can ENGOs contribute to improve compliance?

The majority of respondents considered that ENGOs had a legitimate right to engage in the IUU fishing issue. There was a general consensus that IUU fishing could be significantly reduced if there was the political will to achieve it. Public

opinion was seen as the best way of creating or influencing this political will, and ENGOs were seen as being particularly good or well equipped to undertake this role. There was a clear emphasis that if ENGOs were to engage in this subject, they needed to be very clear and up-to-date with the issues. In particular, respondents involved in enforcement highlighted that ENGOs needed to understand the practical difficulties that are associated with control and enforcement.

The development of the Baltic Sea Regional Advisory Council (BS RAC) was seen as particularly important for ENGOs to use to highlight and attempt to influence the Commission and others in improving compliance. Although, it was emphasised that this was not a platform or stage from which to launch or present campaigns, rather an appropriate forum to discuss policy and practical measures in reducing IUU fishing.

Direct action that had recently been undertaken by some NGOs on Mediterranean and High Seas fisheries was not endorsed by anyone except ENGO respondents. Those involved with enforcement considered this sort of action to be misguided and very unlikely to lead to successful prosecution of offenders. ENGOs confirmed that their intention was not necessarily to gather evidence for prosecutions but to raise awareness of abuse or weaknesses in the system. They also concluded that if such action was to be taken in the Baltic, then communication with and potential support from national authorities was important.

Toward the end of the interview phase of the project a two-part, investigative TV documentary on IUU fishing for cod in the Barents Sea was televised in Sweden ("Kalla Fakta" – Cold Facts on TV4). The programme generated enough public and political interest for there to be follow-up TV coverage, including interviews with the Swedish Fisheries Minister, prominent fisheries representatives and ENGO representatives. Greenpeace and WWF were both involved with the making of the documentary; Greenpeace providing information through "undercover" work and WWF providing more of a policy angle to the issue.

As a result of the documentary, and questions asked by the Swedish Government and others, the European Commission was forced to become

very active on the issue and, at the request of the Swedish Government, it was made a specific agenda item at the next Fisheries Council meeting (20/02/06). The Council concluded to work with Russia and Norway in combating IUU fishing in the Barents Sea and ensuring that IUU cod does not enter the EU market¹⁴.

The opportunity to meet with one of the investigative journalists confirmed that within a sustained and intense six month period, with the support of key individuals and organisations such as the Norwegian Coastguard and ENGOs, they were able to obtain enough information on which to base a television programme which showed that cod has become an expensive commodity and, as a result, has attracted sophisticated business networks and operations that adopt tactics reminiscent in style and approach to the Mafia in their attempts to conceal fishing vessel ownership/activity and trade in cod.

Conclusions

Owing to its clandestine nature, IUU fishing is extremely difficult to confidently estimate. Rather than attempt to estimate the quantities of fish that are caught and landed and further contribute to the uncertain situation, it is reasonable to conclude that there is a high level of IUU fishing, particularly in the form of unreported landings from the Eastern Baltic. The Polish cod fishery appears to be a significant contributor to this aspect of the IUU fishing problem, however, the cumulative effect of IUU activities in other Member States could also be significant.

Other forms of IUU fishing exist and these are likely to vary throughout the year in response to the availability of fish and the technical conservation measures in place.

In some instances, there is chronic non-compliance caused by no or ineffective enforcement action and deterrent. This was described at a local, regional and national scale. Such long term non-compliant behaviour may mean that this has become "normal behaviour" with little or no feeling of moral obligation to comply.

Reducing overcapacity is seen as an important way to reduce IUU fishing. Current decommissioning programmes in the new Member States will mean significant reductions in their national fleets. However, in the absence of any clear understanding of what a balance between capacity and resource may look like it is uncertain whether this will contribute to reducing IUU fishing.

Improving the quality of control and enforcement is seen as an important factor in contributing to a reduction in IUU fishing. However, detecting and successfully compiling a case will only help reduce IUU fishing if the sanction that is imposed acts as a deterrent. If the cost of sanctions are only viewed as a cost of doing business then they will have limited effect.

It seems likely that anyone trading in large amounts of cod runs a high risk of dealing with fish that has come from an IUU source. In some instances, traceability appears to be operational from the point of first sale. However, there is an onus on buyers of first sale fish to ensure that it does not come from IUU sources. Without independent monitoring to confirm that these buyers are making necessary checks to ensure that this is the case, the system is flawed and open to abuse.

VMS appears to be under- or ineffectively utilised by the Member States. Until these short-falls are resolved the monitoring, control and enforcement regime will not be as effective as it could or should be. Further, new technology may be of value, e.g. electronic logbooks, although with the likely need to integrate these systems there is concern that the potential benefit and added value they bring might not be fulfilled.

The political will to improve compliance with fisheries regulations needs to be created and the ENGOs are seen as being well placed to contribute to this. It appears that high profile and factually based media events, in particular through television, provide a very effective way of creating public awareness and help to stimulate political will to tackle IUU fishing.

Part II

Policy and regulatory frameworks

Introduction

European fisheries policy and regulatory frameworks for control and enforcement apply within the Baltic Sea. The following sections describe and analyse these frameworks.

The policy framework

The reformed CFP

A reformed EU Common Fisheries Policy (CFP) was adopted in December 2002. Given the considerable time and effort that went into the whole reform process, the final outcome is a surprisingly short, 21-page document¹⁵ that provides the new "framework regulation" for the CFP. All other regulations related to the conservation, management and exploitation of living aquatic resources and aquaculture must be in accordance with this regulation. Seven chapters and two annexes provide the basis for measures concerning:

- conservation, management and exploitation of living aquatic resources;
- limitation of the environmental impact of fishing;
- conditions of access to waters and resource;
- structural policy and the management of the fleet capacity;
- control and enforcement;
- aquaculture;
- · common organisation of the markets; and
- international relations

Chapters II, V and VI of the reformed CFP provide for three important additions within the policy areas associated with conservation and sustainability, control and enforcement, and decision-making and consultation. They also have particular relevance with respect to the Baltic Sea and the cod fishery in that they provide for:

 The development and implementation of recovery plans for fisheries that exploit stocks which are outside of safe biological limits;

- A new legal framework for a Community control and enforcement system; and
- The establishment of Regional Advisory
 Councils (RACs) to help meet the objectives
 of the CFP and to advise the Commission
 and the Member States on matters of fisheries
 management in respect of certain sea areas or
 fishing zones.

The advent of a reformed CFP did not mean that everything changed overnight; further policy development was required to ensure that the new obligations were met. The Commission was given the major task of developing and presenting proposals that would lead to the implementation of the new CFP. This is an ongoing process which is being undertaken in incremental steps.

The development of a Baltic Sea cod recovery plan

The International Baltic Sea Fishery Commission (IBSFC) adopted a long term management plan for cod in 1999. Despite the plan, however, the state of the stocks continued to worsen and a recovery plan was agreed and adopted in 2001 and further revised in 2003. With the accession of Poland, Latvia, Lithuania and Estonia to the European Community in 2004, only two parties – the EU and Russia – remained in the IBSFC. In 2005, the Community withdrew from the IBSFC and the organisation ceased to exist at the end of that year. Bilateral agreements between the EU and Russia have been adopted and EU regulations and management measures are replacing those agreed within the IBSFC, including the long term management and recovery plans for cod in the Baltic Sea.

Following two consultations on versions of a "non-paper on long term management for cod stocks in the Baltic Sea" in 2005 the European Commission published its proposal for a multiannual cod management plan in July 2006¹⁶. It expects that it will be adopted in June 2007. In the meantime, technical conservation measures are in place that reflects the recommendations

that were adopted within the IBSFC's recovery plan.

The following provides a brief summary of the key points in the plan:

Based on scientific advice, target fishing mortality rates are set for both stocks. In order to reach these targets an annual 10% reduction in fishing effort and fishing mortality is proposed. Annual TACs would be set so that they correspond with the effort limits. In order to avoid large annual changes in the TAC a maximum 15% variation, up or down, would be allowed.

Fishing effort would be limited by annual closures in both the western and eastern Baltic Sea, initially; these would correspond to approximately 2 months in the spring and summer, respectively. Thereafter, if the fishing mortality rate is at least 10% higher that the target rate, the total number of days allowed for fishing would be reduced by 10%. A further three seasonal area closures are proposed that correspond to spawning areas.

Monitoring, inspection and surveillance measures are highlighted with the intention of better ensuring Member States improve the accuracy of landing data and enable improved coordination and cooperation between each other.

The plan would be evaluated after the first three years and, thereafter, annually to review the rate of progress toward the targets. If there is an indication that targets are not likely to be achieved, the Council would decide on a proposal from the Commission on additional or alternative measures.

Comment

The main difference between the existing management approach and that which is described in the multi-annual plan is the proposed adoption and use of target fishing mortality rates against which to assess the recovery of stocks. Also, by clearly linking TACs and fishing effort to these targets and introducing annual maximum variations in them, the Commission has attempted to strike a balance between bringing the stocks within safe biological limits and the likely economic and social consequences of doing so.

In theory, this approach is an improvement on the existing regime. However, the outcome of the TAC negotiations for 2006 left some people feeling that the European Commission and the Council of Ministers took a backward step and, indeed, created a worse situation from which their own recovery plan will start if adopted in 2007. A cynical view may suggest it confirms the lip service that the European institutions pay to the management of fish stocks; a pragmatic view may suggest it more accurately reflects the present reality of the fishery by taking account of the unreported landings and will therefore provide a more realistic basis for a new recovery plan.

Furthermore, some have raised concern that the proposed plan does not meet the requirements of the CFP in that stocks outside safe biological limits must have a "recovery plan". However, because the plan aims to manage two stocks, one of which is at or slightly above the safe biological limit, the Commission has proposed a compromise and called it a "multi-annual plan". The stated intention being to conform with the overall objectives of the CFP, aid recovery and, at the same time, allow fishing in a less restrictive way than would be required with a recovery plan.

Control and enforcement

The reformed CFP provides a new framework for a Community control and enforcement system which, in summary: clarifies the responsibilities of the Member States and the Commission; is designed to ensure that compliance with the rules of the CFP is achieved; and ensures that exploitation of the fish stocks is controlled throughout the whole fisheries chain. The following represent a summary of some of the key points afforded by the new framework:

- The Member States are primarily responsible for the control and enforcement of the CFP, while the Commission is responsible for monitoring and enforcing correct application of Community law by the Member States.
- Member States shall ensure:
 - enforcement measures are taken to ensure compliance with the rules of the CFP;
 - effective control, inspection and enforcement, and provide adequate financial and human resources to achieve this;

- measures that provide sufficient deterrent to discourage infringements;
- cooperation with each other to ensure compliance with the rules of the CFP;
- that fisheries products are subject to an audit and that anybody commercially trading in fishery products must be registered.

The Commission will:

- evaluate and control the application of the CFP by Member States, and facilitate coordination and cooperation between them;
- take preventative measures where there is a risk of a serious threat to the conservation of living aquatic resources;
- evaluate and report every three years on Member States' application of the CFP rules.

In order to take forward the new control and enforcement framework, the Commission produced two Communications^{17, 18} in 2003 which described a step-wise approach with the application of an "Action Plan for Cooperation in Enforcement" followed by a "Compliance Work Plan" which the Commission would implement in coordination with the Member States. By better integrating national control strategies, the Commission aimed to promote a "European culture of control and enforcement"³. The Action Plan was viewed as a short-term initiative, i.e. 2003-2005, providing the platform from which the long-term Compliance Work Plan would be launched.

The Action Plan for Cooperation in Enforcement The aim and objectives of the Action Plan were to achieve more effective use of national means of inspection and surveillance through:

- better using the means available in selected fisheries or stocks;
- adopting Specific Monitoring Programmes (SMPs); and
- periodically evaluating the effectiveness of the SMPs.

To implement the Action Plan, the Commission called upon two of its advisory bodies - the Management Committee for Fisheries and Aquaculture and the Expert Group on Fisheries Control - to provide advice, feedback and support. The Management Committee is made up of senior representatives from Member States administrations responsible for the whole gambit of fisheries management issues. In this instance, individuals from Member State policy, scientific and inspectorate divisions are all potential participants. Similarly, the Expert Group on Fisheries Control is made up of senior representatives from Member States but, more obviously, from those parts of national administrations that are responsible for monitoring, control and surveillance of fisheries.

The Action Plan was meant to establish the basis for the Compliance Work Plan and 2006 marks the transition between the two. It is therefore timely to consider and review how the Action Plan has been applied in the Baltic Sea. Table 5 describes each of the Action Plan's eleven action points and, drawing upon discussions with representatives from the Commission's Directorate D and from some Member State inspectorates, provides an analysis of each. Figure 1 provides a pictorial explanation of how the Action Plan and Work Plan relate and the intended outcomes.

Figure 1. The relationship and planned outcomes of the Action Plan for Cooperation in Enforcement and Compliance Work Plan

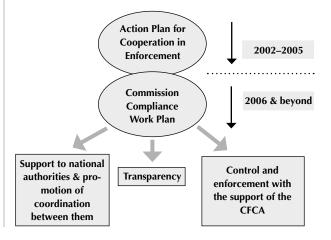


Table 5. An analysis of the 11 Point Action Plan for Cooperation in Enforcement with respect to the Baltic Sea cod fishery

Action Point and its Aim

A description and analysis of how the actions have been applied in the Baltic Sea region

- Select relevant fisheries or stocks:
- Demersal fisheries in regions 2 and 3:
- Highly migratory species in the Mediterranean;
- Cod, herring and sprat fisheries in ICES divisions III b, c and d, (i.e. The Baltic Sea);
- Industrial and pelagic fisheries in regions 1, 2 and 3; and
- Landings of IUU vessels in Community ports (this refers specifically to vessels engaging in high seas fisheries).

Aim: The prioritisation of the use of existing means of inspection and surveillance in selected fisheries or stocks.

The Baltic Sea cod fishery has been selected as a key fishery on which to focus inspection and surveillance effort.

The Commission has chosen to use the Working Group on Control and Enforcement, which was originally established by the International Baltic Sea Fishery Commission (IBSFC), as the main focal point for improving integration and cooperation of national control strategies. The Working Group is chaired by the Commission and brings together representatives from all the Baltic Sea Member States fisheries inspectorates.

Unlike the IBSFC, the Commission does not publish reports of these meetings. It appears that owing to sensitivities that some Member States have with respect to having their "shortfalls" being made publicly available and, given the role of facilitator, coordinator and encourager, the Commission is keen to establish meetings where Member State representatives can talk openly and not feel too guarded in what they say.

Feedback received in the course of this study suggests that the Commission is of the opinion that the effectiveness of inspection and surveillance at sea would be greatly enhanced by better coordination and more frequent inspections of landings. In particular, the Commission believes:

- VMS data is under-utilised by and between Member States with limited use or capacity to use real time information to direct inspections. Given that Community funds have contributed to the development and implementation of VMS, the Commission is keen to see better use of the system.
- Coordinated at-sea inspections appear to happen more on an ad-hoc basis owing to poor coordination between the relevant Member State departments as well as difficulties in ensuring that vessels, which are often tasked with multiple roles, are available. The Community Fisheries Control Agency (CFCA) (see page 30) and any vessels it may charter may be able to provide a solution to this situation.
- There is a need for an increase in the frequency of landing inspections: concerted actions need
 to be taken targeting those fleets or ports where landings of cod are most likely; more inspectors
 need to be employed by the Member States; and/or more specific designated places and times
 (i.e. than the existing designated ports) need to be set for landings to improve the chance of
 inspection.
- 2. The Commission will adopt regulations laying down specific monitoring programmes for the relevant fisheries or stocks and establish:
- Common inspection and surveillance priorities;
- Benchmarks for inspection and surveillance of fishing activities; and
- Checks to be made by inspectors.

Member States should ensure that their competent authorities will achieve the common inspection priorities and benchmarks.

Aim: Enhanced effectiveness of inspection and surveillance activities.

Annex III to Council Regulation $52/2006^{19}$ (also page 42) provides the basis of a specific monitoring programme (SMP) for the Baltic Sea cod fishery. Its origin is the IBSFC's cod recovery plan, which was agreed in 2002 and has been annually rolled forward and adapted since. An EU cod recovery plan is anticipated in 2007 (see page 21) and will provide a new framework for the SMP.

Member States are required to take the necessary measures to facilitate implementation of these programmes, particularly as regards the human and material resources required and the periods and zones where these are to be deployed. Baltic Sea Member States are required to publish this information on their authorities' websites. In the same vane, benchmarks for inspection are required to be publicised on official websites. While all Member States have published this information some deficiencies are noted, for example, the Polish website does not give information on how they implement effort management.

The Commission is keen to ensure that uniform inspections are being conducted and that criteria are established for what constitutes a "full inspection". Common rules for national control programmes have been set but a standardised inspection protocol or criteria have yet to be established for the Baltic Sea.

In 2005, the Commission undertook an evaluation of how Member States had implemented measures set out in Annex III (see page 40). In its interim assessment, the Commission presented broad conclusions for four unnamed Member States (subsequently found out to be Poland, Latvia, Lithuania, Estonia). They concluded that:

- The interim and additional conditions for monitoring, inspection and surveillance in the context
 of recovery of cod stocks in the Baltic Sea were mostly being implemented. However, some measures (undisclosed) were not achieving the intended outcome or were not considered to be useful.
- Extra enforcement effort had been deployed in most cases but there were unlikely to be any more
 additional resources for at-sea or onshore enforcement in the near future.
- Comprehensive and efficient catch registration systems are in place.
- There was scope for better cooperation between Member States.

Action Point and its Aim	A description and analysis of how the actions have been applied in the Baltic Sea region
	A more detailed analysis for all the Baltic EU Member States was expected to be published in June 2006, however, this was delayed and has yet to be formally released (as of early 2007). The delay is apparently due to the Commission discussing the results and encouraging Member States to make improvements in their ability to carry out fundamental control, monitoring and surveillance (CMS).
3. The Commission will periodically review the effectiveness of inspection and surveillance activities in cooperation with national control experts. Aim: Enhanced transparency of inspection and surveillance activities.	Measuring the effectiveness of inspection and surveillance is difficult. Rather than try to measure this specifically, the Commission believes that consistent and equitable application of the rules will result in more effective inspection and surveillance. In this regard, it has chosen a number of ways that, in combination, provide an on-going review of effectiveness and greater transparency: • The Commission convenes regular meetings of the Baltic Sea Working Group on Control and Enforcement to discuss effectiveness of National Action Plans and Joint Inspection Programs. • The Commission undertakes its own evaluation of the effectiveness of control and inspection activities. • Inspection reports are produced for every inspection and the Member States provide an analysis of this to the Commission and other Member States. • The Commission annually publish a Compliance Scoreboard (see page 33 and table 6) which, among other things, is meant to provide an indication of how Member States comply with their obligations associated with control and enforcement. The lack of transparency of the meetings of the Working Group, as already highlighted above in reference to Action Point 1, makes it difficult to comment on how this group contributes to improved effectiveness of inspection and surveillance. Since 2003, the Commission has undertaken three separate evaluation/verification programmes: • BACOMA verification programme; • VMS verification; and • Interim evaluation of Member State inspection information and the Compliance Scoreboard are linked; the analysis of the inspection information provides the basis for assessment by the Commission through the Scoreboard. However, in the analysis that the Commission has provided with each of the Scoreboards that have been published so far, it highlights the difficulties in making meaningful comparison between Member State control and surveillance programmes. The reason appears to be the lack of a standardised way of compiling and reporting inspections, despite the Commi
4. Working in cooperation with the Commission and third countries, Member States will adopt legislation requiring the setting up of pilot projects to develop and test electronic reporting devices and logbooks. Aim: Rationalised data recording and reporting to authorities.	Vessel Monitoring Systems (VMS) have been developed and supported by the Commission and are now in place for all vessels over 15 metres. The Commission has funded research into electronic logbooks – Secure and Harmonised European Electronic Logbook (SHEEL) – and is confident that such innovations will be part of the control regulations in the not too distant future; indeed, Denmark is already operating an electronic logbook system. Ensuring that new technologies to improve control and enforcement are used to best effect and in a way that allows Member States to better coordinate their inspection effort will be a challenge; one that has not been met with total success with VMS, as indicated under Action Point 1 above.
5. Member States will appoint coordinators capable of responding at short notice to requests for information on the characteristics of vessels flying their flag. Aim: Increased effectiveness of inspection, surveillance and follow-up action on infringements through accessibility of relevant information.	An obvious pre-requisite for improved coordination between Member States is knowing who, where and how to contact officers within different administrations in order to gain access to relevant and specific vessel information. According to the Commission, all Baltic States have appointed coordinators and the intention is that remote access to information by electronic means will be available in the future. In conversation with some members of fisheries inspectorates it still seems there are problems getting information in a timely and useful fashion. Not only does this apply to statutory information such as logsheets, sales notes and landing declarations but also with respect to VMS or vessel sighting data.

Action Point and its Aim	A description and analysis of how the actions have been applied in the Baltic Sea region
6. Working in cooperation with national authorities, the Commission will review national procedures and requirements concerning accessibility of individual data and, where appropriate, introduce harmonised minimum requirements by adopting new legislation. Aim: Guaranteed confidentiality of information concerning individual vessels or individual operators.	When vessels operate either within, from or between different Member States, secure and quick access to vessel data provides for improved control, surveillance and enforcement. The Commission confirmed that through the Working Group on Control and Enforcement it has reviewed the national procedures in place. It concludes that, in some instances, procedures are still inadequate or infrequent. Member States where this was a problem made a commitment to remedy the situation in 2006; to what extent this was achieved is not yet certain. Again, without access to reports or minutes of the Working Group, it is not clear to which Member States it refers and whether improvements were achieved. Neither is it clear what action the Commission will take if the situation is not improved.
7. Working in cooperation with national authorities, the Commission will review operational communication procedures and, where needed, will introduce uniform communication routines. Aim: Harmonisation of operational communication routines between inspection platforms.	An important issue with respect to improved cooperation between national authorities is their practical ability to securely communicate between surveillance vessels and aircraft. Some Member States use military technology and procedures, while others use civilian means of inspection and are not equipped with installations that allow them to communicate in this way. It is not clear how much of an impediment this really is. While the Commission has a commitment to improve the situation, it has openly given this a low priority and admits to limited progress on this action.
8. Member States should adopt measures to facilitate exchange of inspectors, notably as regards inspection and surveillance of trans-boundary fishing activities. Aim: Enhanced uniformity of inspection and surveillance.	The Commission is helping to facilitate this approach by providing resources to improve exchange and liaison. Some Member States have established good links resulting in a regular (annual) exchange of inspectors. Those inspectorates that expressed an opinion agreed that these exchanges were valuable. However, losing inspectors from already under-staffed administrations posed its own problems.
9. The Commission will review information on irregularities and non-compliance which it receives from third parties, on an annual basis, together with representatives of the fishing industry. Aim: Enhanced uniformity of inspection and surveillance.	The Commission is of the opinion that the Regional Advisory Councils (RACs) provide a forum through which irregularities on non-compliance could be brought to its attention. While this action point specifically mentions reviewing information on an annual basis, when asked, the Commission confirmed that if the irregularities were considered to be of a serious enough nature it would deal with them in a more expeditious fashion.
10. The Commission will compose a draft code of conduct for inspection to be discussed with national inspectors and the fishing industry by mid-2003. Aim: Fair, professional and safe inspection and surveillance.	The code has been given a low priority and not been progressed. Some Member States already operate their own codes of conduct. Such codes are important to show that the administrations have established clear and transparent methods for conducting their duties.
11. The Commission will provide regular feedback of inspection information to national control experts. Aim: Enhanced cooperation between the Commission and the competent national authorities.	The findings of Commission inspectors are made available to the competent national authorities for comment. This is part of a formal process. The Commission has said that it will review the information on irregularities on conduct.

Was the Action Plan effective in the Baltic Sea?

Within the Baltic Sea region, the European Commission has achieved the majority of the action points set out in the Action Plan:

- The Baltic Sea cod fishery has been identified as a key fishery on which to focus inspection and surveillance effort;
- A working group, formerly under the auspicious of the IBSFC, has been used to coordinate cooperation;
- Common priorities and benchmarks for inspection and surveillance for all the Baltic Sea Member States have been adopted;
- The Commission has undertaken evaluation of a variety of control and inspection activities:
- The Commission provides regular feedback of inspection information to national control experts;
- A compliance scoreboard has been published annually since 2003;
- Pilot projects have been funded and are expected to result in new applications in the near future;
- Review of third party complaints through the development of the Baltic Sea RAC;
- Member State coordinators have been appointed to ensure improvement in requests for information from other Member States; and
- Member States are increasingly exchanging inspectors and the Commission is helping provide funds for this process.

The Commission has made limited or no progress on:

- Achieving common inspection protocol or criteria;
- Reviewing operational communication procedures; and
- Drafting a code of conduct for inspection.

The Commission should be given credit for achieving so much within a relatively short space of time and with the limited resources it has at its disposal. In discussion with Commission staff, the "fall out" from the CFP reform has provided them with a significant task and was further added to by unrealistic political gestures and commitments made by some senior staff who were buoyed up by the fact that they were leaving after the CFP reform – and so would not be around to deal with the consequences.

Furthermore, within the post-CFP reform phase, the accession of four new Member States within the Baltic has provided the Commission with another significant increase in workload. If it had not been for the fact that the IBSFC provided a focal point and structure which the Commission could adopt and mould into a form that suited it, then it seems likely that the Commission would have had serious difficulties in achieving what it has. In some instances, the accession process may have benefited the speed with which the Action Plan has been implemented owing to the requirement of new Member States to meet the Acquis Communautaire, i.e. the body of legislation candidate countries must adopt before joining the EU. The near coincidence of their joining and the implementation of the reformed CFP may have provided for a more rapid adoption by new Member States of some new working practices.

While the Commission may have been able to put in place the majority of the actions it had intended, the real "litmus test" is to assess whether they have been effective or not, and also to consider the consequences of those actions that were not fully implemented.

There has been no official assessment of the Action Plan. During the course of the study, however, representatives from the Commission were asked their opinion on how effective the Action Plan had been in achieving its aims.

There was a general feeling that cooperation had improved and overall there was much better coordination. However, some of the new Member States were still finding it hard to meet all the basic requirements, mainly as a result of resource constraints. Some of the other Member States were facing cutbacks or caps on resources and so, as with any system that was being asked to do something different but with the same or less resources, progress was slower than might have been hoped. It was also pointed out that the outcome of the Commission's 2005 evaluation of how Member States implemented the technical and control measures set out in Annex III of Council Regulation 52/2006 will provide clear indicators as to a number of the key aspects of the Action Plan (see page 40). The Compliance Scoreboard was also considered to provide some indication of how Member States were complying with requirements of the Action Plan, although it was recognised that there were some

failings in the process (see page 33).

With respect to actions for which there were limited or no progress, the Commission had given a low priority to all but the development of common inspection protocol/criteria from the outset. Results from its interim evaluation of the implementation of Annex III confirm that inspections are still not being conducted in a standardised way. It was not entirely clear from the discussions with the Commission why standardising inspections was such a difficult thing to do. It seems likely that, for some Member State authorities, a significant factor is the practical reality of undertaking inspections with limited resources, often in less than ideal conditions or circumstances. In such cases, inspectors may find they have to prioritise aspects of an inspection at the expense of others.

If standardised, inspections may consistently fail to be fully applied, even though key aspects of an inspection were undertaken. The authorities could either fail to meet minimum requirements or chose to report a complete inspection, without actually doing so, making a mockery of the system.

It would be unfair to use the feedback received in the course of the study as a clear indication of effectiveness of the Action Plan. However, it was obvious that some of the actions were considered easier to assess than others as they had tangible results or indicators. In other instances, there appears only to be a presumption that because certain frameworks or procedures are in place the actions are effective.

The Compliance Work Plan

The Commission's Compliance Work Plan aims to compliment and take forward the Action Plan. It focuses on three main areas:

- Support to national authorities and promotion of co-ordination between them
- Control and enforcement
- Transparency

In discussion with members of Directorate D: Control and Enforcement and with reference to the Commission's Communication (COM(2003)344)²⁰, the following provides a summary of what the Commission has already

achieved and what it envisages for the Work Plan under these three areas. Where possible, it also highlights aspects of particular relevance to the Baltic region.

Support to national authorities and coordination between them

The Commission will continue to work with the Member States within the framework of the Management Committee for Fisheries and Aquaculture and the Expert Group on Fisheries Control. Their focus will be:

- the adjustment of fleet capacity;
- the current weaknesses in inspection and surveillance, including follow-up of infringements; and
- assessment of joint inspection programmes (in so doing, the Commission will undertake periodic evaluation reports).

The Commission will also continue to consult stakeholders through the Advisory Committee on Fisheries and Aquaculture (ACFA) and use Regional Advisory Councils (RACs) to consult interested parties. With respect to the Baltic, the Working Group on Control and Enforcement will continue to provide important input and the Commission specifically expressed its high expectations of the Baltic Sea RAC.

Control and enforcement of the plan

The Commission has broadly set out within the Work Plan how it will monitor and enforce the correct application of Community law by the Member States. The Commission intends to focus its efforts in four ways:

- 1. By identifying inspection priorities;
- 2. The establishment of "administrative inquiries" into cod and hake catch data;
- 3. The freeing up and re-directing of EU inspector time away from RFO (Regional Fisheries Organisations such as NAFO, NEAFC) duties; and
- 4. Ensuring Member States are applying appropriate deterrents.

As well as the inspection and monitoring work undertaken by the Commission, a Community Fisheries Control Agency (CFCA or "The Agency") will also be established to support Member States in their control and enforcement efforts.

Using the above points as headings, the following provides a summary of what the Commission envisages for the control and enforcement aspects of the Work Plan and also describes the role and function of the Control Agency.

The Commission's inspection priorities
The European Commission has a team of approximately 30 inspectors and, following an advertising for 29 more, will be recruiting throughout 2007. Through "Missions" to the Member States and through the analysis of information gathered from different sources, the inspectors observe and verify how the national authorities have organised their control and inspection activities, and how the rules of the CFP are applied in practice. The Commission has set four inspection priorities:

The first priority for Commission inspectors is the effective application of conservation, control and enforcement measures by Member States on stocks that are outside safe biological limits and for which recovery plans have been tabled - and so includes the Baltic Sea cod fishery. The adoption of specific monitoring programmes will provide a focus on inspection and surveillance at sea, inspections of landings, including the first sale of the quantities landed, as well as transport and marketing. The monitoring programmes will also set out benchmarks for inspection, common priorities and list the checks to be carried out by national inspectors, with the intention of providing a clearer basis upon which Commission inspectors can undertake their evaluations.

The second priority is the verification of the implementation and effectiveness of particular requirements in specified areas, such as effort limitations in the North Sea and North Western Waters, control measures for the Baltic Sea cod fishery, control measures for highly migratory species, checking of logbook requirements in the Mediterranean and checking on how Member States control engine power. In so doing, the Commission inspectors will provide evaluation reports on how Member States are performing.

The third priority relates to cooperation with third countries, notably under bilateral fishery agreements, regional fisheries organisations' control and enforcement schemes, and the FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing – this is a high seas initiative rather than within the EU EEZ.

Finally, the fourth priority that the Commission has set will facilitate the implementation of new technological requirements adopted by the new CFP, such as the inclusion of VMS requirements for smaller vessels, pilot projects on remote sensing and electronic logbooks.

The Commission's priority areas appear to be appropriate and well founded. However, the ability of the Commission inspectors to effectively undertake their role as "monitors of the monitors" has been diluted and constrained in a number of ways by Article 27(1) of the CFP framework regulation (EC 2371/2002):

- They have no additional powers beyond those of national inspectors and have no enforcement powers;
- If a Commission inspection takes place without assistance of national inspectors, the third party is within their right to decline an inspection;
- Commission inspections can only take place on fishing vessels, places of first landing or first points of sale, unless accompanied by national inspectors;
- Commission inspections of business premises or vehicles transporting fish can only take place when accompanied by national inspectors; and
- Member States are not obliged to act against individuals on the basis of the findings of a Commission inspection report.

How much these limitations undermine the Commission inspectors effectiveness was not clarified during the course of this study, although it was intimated by the Commission that the inability for Commission inspectors to operate while ashore, in some circumstances, inhibited their effectiveness and that it was down to Member States to be more willing than they presently were to allow this to change.

Administrative inquiries

Owing to the apparent EU-wide problem of unrecorded landings of cod and hake, the Commission will request all Member States concerned to undertake administrative inquiries into the reliability of cod and hake catch data and to investigate any potential cases of illegal landings of cod and hake. The Commission will be able to ask that particular sources of information are used including commercial, trade and tax data and Commission inspectors will be able to participate in the inquiries.

This is a key initiative and something that is to be anticipated within the Baltic. At the time of writing it had apparently not been decided when such a request will be made. It was not possible to gauge the level of detail or the extent to which the Commission anticipates being involved in these inquiries. However, it would seem prudent to ensure limited warning is given to those that might be involved in the trade of unreported landings; that the level of participation by the Commission is high; and, that appropriately qualified and skilled investigators are used to undertake a task that is, potentially, beyond the normal capabilities and expectations of fisheries inspectors who are more accustomed to dealing with fishermen, fishing vessels and other fisheries inspectors than trade and tax data.

Redirecting EU inspectors

To ensure that the Commission is able to best direct its limited inspection resources to this new way of working, Commission inspector time in RFO fisheries will be freed up and the shortfall will be made up by inspectors from the Member States benefiting from these fisheries. This has already happened within the NAFO region. Also, as indicated above, in order to ensure that it is more able to effectively carry out these areas of work, the Commission is in the process of appointing a further 29 Commission inspectors. These will be based in Brussels and will be tasked with developing, undertaking and evaluating monitoring programmes in all the coastal Member States.

Ensuring there is a deterrent

Member States are required to have systems that will deprive offenders of any financial gain from their actions and also act as an appropriate deterrent. When Member States fail to comply with these requirements, the Commission is able to improve the level of compliance by suspending financial assistance, invoking preventive measures and reducing future fishing opportunities. As regards preventive measures, as a first stage, the Commission envisages using this instrument primarily in relation to "black fish" concerning vulnerable stocks such as cod and hake.

These appear to be appropriate and effective measures. However, the time and human resources needed to undertake such action are considered likely to act as more of a deterrent for the Commission than the Member States. It was only after 15 years of political and legal wrangling that France was finally penalised last year for overfishing. It is not clear how or why the process for penalising Member State judicial or administrative systems for inappropriate deterrents will be any easier or quicker.

In addition to what the Commission may have in their "deterrent armoury", Article 25(4) of the reformed CFP (EC Reg. No. 2371/2002) says that the Council will establish, "...a catalogue of measures to be applied by Member States relating to serious infringements...". The Commission and others have regularly highlighted that appropriate deterrents are either not used or are not consistently applied, and so this was seen by many as a positive move toward establishing a way by which Member State judicial and administrative systems could accordingly set penalties. However, during the course of the discussions with the Commission staff they said that they would delay the development of such a catalogue and first focus on making the existing transparency elements of their Work Plan (i.e. the Serious Infringement Report and the Compliance Scoreboard) more meaningful and effective (see page 37). This would not likely happen until 2007.

Community Fisheries Control Agency

The following is based on a summary from Commission COM(2003)130²¹, Commission staff working paper SEC(2004)448²² and the Council Regulation²³ that confirmed the establishment of the Community Fisheries Control Agency (CFCA) – "the Agency".

The setting up of the Agency was agreed by the Council of Ministers in April 2005 and preempted a feasibility study that the Commission had already put out to tender with the intention of informing the Agency's establishment.

The Regulation confirms the objective of the Agency is "...to organise operational coordination of fisheries control and inspection activities by the Member States and to assist them to cooperate so as to comply with the rules of the CFP in order to ensure its effective and uniform application".

It also confirms that there will be a corresponding obligation on Member States to make available the resources needed, and to deploy these "...in accordance with the joint deployment plan". Figure 2 includes the joint deployment plan and also shows how the Agency will potentially work with, coordinate and assist Member States on specific monitoring, control and surveillance operations.

Its Administrative Board was constituted at its first meeting held in February 2006 (see Annex II). At its second meeting held in Vigo, Spain, in June 2006, the Administrative Board appointed the Executive Director of the Agency. The Agency is in the process of setting up its basic administrative and financial structures and recruiting staff so as to be ready to commence its operational activities from January 2007. It is basing itself in Brussels until its new headquarters are built in Vigo.

According to the Agency's work programme it will concentrate on organising operational coordination of control and inspection by Member States on a fishery-by-fishery basis, apparently covering all stages of control and inspection of fishing activities from fishing to the first sale of fish landed or entering the Community market.

Three operational priorities are highlighted:

- (i) Recovery and multi-annual plans for stocks and the fishing activities exploiting those stocks;
- (ii) The Community Action Plan to combat illegal, unreported and unregulated fishing; and,
- (iii) The need to reduce the impact of destructive fishing practices and discards.

Preparation of operational "Joint Deployment Plans" (JDP) will be undertaken and they will be

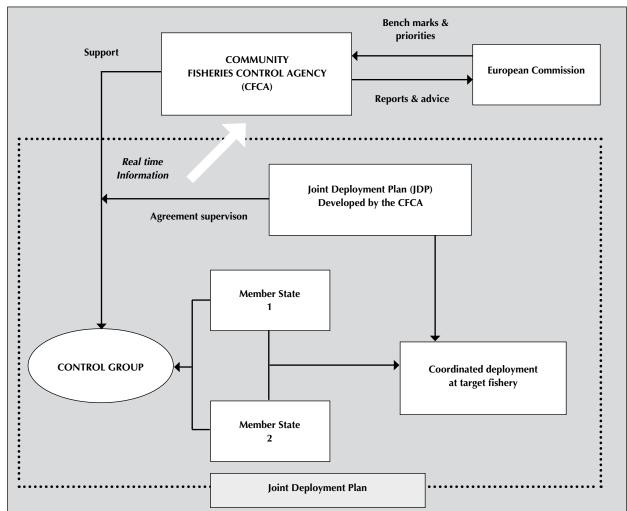


Figure 2. Showing the potential structure for a joint inspection framework within which the Agency might operate

adopted in the North Sea, the Baltic Sea and for the eastern stock of blue fin tuna.

What constitutes a JDP is elaborated upon in the Agency's work programme. In summary, it will build on the existing operational cooperation between the Member States in the region concerned and it will be tailored to the characteristics of the region. The Agency will first make a study covering information on fishing and control and inspection activities, non-compliance records and levels, and reasons for such behaviour.

Moreover, it will examine ways to promote a culture of compliance on the level of the region together with the relevant RAC. Subsequently, the Agency will analyse on the basis of the means of control and inspection pooled by the Member States concerned how the objectives, priorities and bench marks set out in the specific control and inspection plan can be achieved.

Within its competence and for this purpose, the Agency may assist in or hold meetings, symposia, conferences, working groups with the Member States concerned and the stakeholders through the relevant RAC and invite third persons to attend or to make presentations or other written documents so as to contribute to the objectives pursued by the Agency.

Within Community waters, priority is given to fishing activities affecting stocks with recovery plans and within which non-reporting of landings is considered a significant problem.

In international waters, the Agency may take on tasks that are already assigned to the Commission within the North East Atlantic Fisheries Commission (NEAFC) and the North Atlantic Fisheries Organisation (NAFO). It may also undertake work with Norway on discarding in the mackerel fishery.

According to the work programme, the Agency will have to concentrate its operational activities in 2007 and 2008 on a limited number of fisheries since it will take some time to be fully equipped and staffed (estimates of 49 staff have been made by the Commission – based on similar Community inspection agencies).

The Agency will use its experience from 2007 to agree future needs with Member States and the

Commission. By 2010 the Agency is anticipated to become the independent and objective contact point in the Community for matters relating to control and inspection

The estimated budget of the Agency is in the region of €5 million, which it envisages would be met mainly by a contribution from the Community but also through other sources of income including charges to Member States for specific services provided to them on a contractual basis (e.g. training), as well as fees for publications.

Comment

Discussions with the Commission confirm that it and some Member State administrations have some uncertainty as to the benefits the agency will provide. Some are of the opinion that the Agency was a result of politics as opposed to practical solutions. The basing of it in Vigo, the fishing heartland of a Member State with a notorious reputation for non-compliance, only served to confirm these opinions. Some of the southern Member States appear to be more positive as they see that there is the potential for a Community Agency to improve their IUU problems and remove potentially difficult political situations that might be created if their own administrations were more effective. Whereas in the northern Member States they are keen to show that their agencies and systems are able to deal with the problem; in the UK, for example, anything that undermines or shows a failing in the Royal Navy to undertake enforcement will be seen to be very negative.

The challenge appears to be whether the Agency will add value to the existing system. Many Member State administrations are under regular scrutiny as to the cost of enforcement and this is becoming more of an issue. The success, or otherwise, of the Agency is likely to be highly dependent on the ability of the Chief Executive to establish the organisation and win over the opinion that the Agency is more than a political sop to tackling IUU fishing.

Figure 2 has been adapted from the Commission Communications and staff working papers to show how the Commission envisages that the Agency will fit into helping coordinate and engage with Member States on specific monitoring, control and surveillance operations.

Transparency

During the CFP reform process, the Commission published a "Roadmap" that set out how it would implement its programme of reform. In this, the Commission committed itself to improving transparency of information on compliance of fisheries regulations by collating Member State information and publishing an annual Compliance Scoreboard. To date, three editions of the scoreboard have been published and take the form of written analysis and data presented in tables.

The Scoreboard is intended to show Member States' compliance with their obligations regarding fish stock conservation, fleet management, structural policy, and control and enforcement. This is achieved by using indicators, intended to provide an easy way of viewing comparative information between Member States. The Scoreboard also indicates the inspections carried out by Member States and shows the infringement procedures initiated by the Commission against Member States who have failed to comply with CFP rules.

Table 6 summarises the indicators used in the Commission's Compliance Scoreboard and evaluates how the EU Baltic Sea Member States performed in 2004.

Of particular relevance to this study is the effectiveness of the Scoreboard's indicators under the policy themes associated with "management of fisheries" and "verification of national monitoring/control arrangements and infringement procedures". The following considers each with respect to the EU Baltic Member States.

Reporting catch data

This is used as a basis to indicate whether Member States are implementing adequate data monitoring procedures. The analysis in Table 6 shows that six of the Member States had problems meeting the requirements of submitting data on time. From the available information, it can be concluded that these Members States did not have adequate monitoring procedures. However, there is no explanation as to the significance or why there was this apparent failing, nor is there any indication of how the Commission intended to follow up and improve the situation.

Overfishing

None of the Member States reported overshooting quotas. However, the Commission is not naïve enough to think that this is an accurate reflection of the situation and mentions in its assessment that scientific reports and its own observations have supported the suspicion that misreporting and unreported landings take place throughout the EU. With this in mind, it begs the question as to the validity or worth of this as an indicator of compliance.

Reports on fishing effort

Three Member States were late in submitting their fishing effort reports. The Commission indicates that it could take infringement action against those that do not fully meet the requirements of reporting fishing effort. In this instance, however, it gave no indication as to whether action would be taken. Without explanation as to the follow up action that the Commission intends to take, there is no validation in the value of this as an indicator.

Behaviour seriously infringing the rules

Four serious infringement reports have been published^{27, 28, 29, 30}. Owing to the late submission of information (see required information format in Annex III) from Member States, the Commission was unable to publish a report in 2004. In its 2005 report, the Commission was unable to draw many clear conclusions because of the poor quality of the Member States' data and the tone of some of the reports final remarks suggest a degree of frustration, for example, "Given a certain unreadiness to comply with the obligation of timely and accurate reporting of information on 'serious infringements', the Commission shall not rule out at this stage taking action against some Member States".

However, and despite this, one clear conclusion the Commission was able to make is that the level of fines is insufficient to act as a deterrent and should be generally increased. It is of the opinion that an administrative sanction that penalises fishing time rather than the pocket of fishermen, such as the suspension of a licence or authorisation to fish, would be quicker to administer and a more effective deterrent. It highlights its regret that Member States do not more readily use this approach.

Table 6 Showing the indicators used in the Commission's 2004 Compliance Scoreboard and how Baltic Sea Member States performed.

Policy areas	Policy theme	Indicator	How Baltic Member States performed in 2004		
Management of fisheries	Reporting of catch data	To ensure that the Member States are implementing adequate data monitoring procedures, the Commission requires them to provide data at regular intervals throughout the fishing year. This information is divided between six types of reports, known as Reports A to F.	The following tabulation shows which Member States complied with submitting their reports in 2004. Where an "0" is used it signifies either a late or nil return.		
		Reports that must be presented monthly: A report: quantities of each stock covered by a TAC and/or quota landed in the territory of a Member State by vessels flying its flag. B report: quantities of each stock covered by a TAC and/or quota landed in the territory of a Member State by vessels flying the flag of another Member State. Reports that must be presented quarterly: C report: quantities of each stock not covered by a TAC and/or quota landed in the territory of a Member State by vessels flying its flag. D report: quantities of each stock not covered by a TAC and/or quota landed in the territory of a Member State by vessels flying the flag of another Member State. E report: quantities of each species taken in third-country waters	Swe Den Pol Ger Fin Lith Lat Ea A x x x x x x x 0 0 0 B x x x x x x 0 0 0 C x x 0 0 x 0 0 D x x 0 0 0 0 0 0 E x x 0 0 0 0 0 0 F x x 0 0 0 0 0 0		
		or on the high seas landed in the territory of a Member State by vessels flying its flag. F report: quantities of each species taken in third-country waters or on the high seas landed in the territory of a Member State by vessels flying the flag of another Member State.			
	Overfishing	The data forwarded by Member States to the Commission is based on the declarations of catches and landings made by vessel owners or agents.	No Baltic Member State reported exceeding their annual quota.		
		When a Member State assesses that its annual quota allocations for any particular stock or group of stocks are almost used up it is obliged, under Community law, to take a number of measures to avoid these quotas from being overfished. These measures include not only enforcing a ban on fishing for the stocks or group of stocks concerned, but also setting a date after which these stocks cannot be retained on board a vessel, trans-shipped or landed.	The TAC for cod in 2004 was 75,000 tonnes. 69,858 tonnes was reported to have been landed. The ICES Baltic Fisheries Assessment Working Group Report (2005) estimates total landings of 88,609 tonnes.		
	Reports on fishing effort	"Fishing effort" is defined as the product of the fishing capacity of a vessel (usually assessed in terms of engine capacity) and its fishing activity (days spent at sea). Limits on fishing effort have been imposed in some fishing areas, such as the Baltic Sea. Member States are required to provide the Commission with information on the fishing effort exerted by their vessels in these areas in quarterly and yearly reports, the latter showing fishing effort on a monthly basis.	Sweden was the only Member State to submit all their reports on time. On at least one occasion Denmark, Germany and Finland all submitted late reports. The accession countries were exempt from this reporting requirement for 2004.		
Fleet management	Community's register of fishing vessels	Member States have to register their fishing vessels in the Community Fleet Register; therefore, the Register should reflect the current situation of their fleets. The Member States have to send a copy of their complete national fleet register database, which includes a minimum set of characteristics per vessel to the Commission four times a year.	All Member States provided this information on time.		
	Compliance with the entry-exit regime and the reference levels for the fleet at the end of 2003.	Before 1st May each year, Member States have to submit a report on their efforts during the previous year to achieve a sustainable balance between fleet capacity and available fishing opportunities. Since 1 January 2003 Member States have had to apply an entry-exit regime to the capacity of their fleets, measured in terms of both tonnage and power. Any entry of capacity into the	All States remained within the reference levels.		

Policy areas	Policy theme	Indicator	How Baltic Member States performed in 2004
Fleet management		fleet of a Member State has to be compensated by the prior exit of at least the same amount of capacity (ratio 1:1, "at any time"), unless the entry corresponds to works to improve safety, hygiene or living and working conditions on board. Reference levels for fleet capacity were set at the end of the Multi Annual Guidance Program (MAGP IV). Since the reference levels are a legacy of MAGP IV (period 1997–2002), they do not apply to the Member States that joined the EU on 1st May 2004. Rather, they have to ensure that the capacity of their fleets (in terms of gross tonnage and kilowatt power) must be equal or less than it was at 1st May 2004.	
	Re-measuring fishing vessel capacity	Owing to differences in how Member States' measured fleet capacity in 1995 the Commission put in place rules to standardise the measurement of Community vessels in Gross Tonnes (GT). Measuring capacity is particularly pertinent in the attempts to better achieve a balance between fishing capacity and fish stocks. By 2003, all vessel length categories (0–15 m, 15–24 m, >24 m) were to have been re-measured.	All States had re-measured their fleets, except for Poland, which still had to measure 1% of its 0–15 m fleet.
	Information required on fishing licences	Member States are required to communicate the vessel agent's name and address, the owner's name and address, and the place of construction for all vessels.	All States were fully compliant.
Structural Policy	Progress reports on programmes under the Financial Instrument of Fisheries Guidance (FIFG)	Each year, Member States are required to submit progress reports on every programme being carried out under the terms of the FIFG before 30 April. The reports should also cover information on financial aspects of implementation, and on the steps being taken to ensure the quality and effectiveness of the application of the funding. These reports allow the Commission to keep a close watch on how the FIFG is operating, and to check that aid granted under the scheme by the Member States meets the requirements of the structural funds (e.g. eligibility criteria). Since 1 January 2003, FIFG aid to a Member State can be suspended if reporting obligations are not met.	All States were fully compliant.
	Member States' management and control systems for assistance granted under the Structural Funds	Member States are legally obliged to implement effective management and control systems and must assist the Commission by carrying out checks on how European funds are being used. Member States must inform the Commission by 30 June each year of the checks they have carried out.	All States were fully compliant.
Environmental Issues	Annual report on shark finning	Since 2003 there has been a general prohibition on "shark finning" – although there are certain exceptions. By 1st May Member States are required to send a comprehensive annual report on the implementation of the Regulation during the previous year. This report must include a description of monitoring systems in place to ensure compliance with the requirements set out in the Regulation and the outcome of control procedures.	Sweden was the only Member State to submit their report on time; all the other Member States provided late submissions.

Policy areas	Policy theme	Indicator	How Baltic Member States performed in 2004
Environmental Issues	List of vessels authorised to use driftnets in the Baltic Sea	By 30th April each year, Member States are required to send the Commission the list of vessels authorised to carry out fishing activities using driftnets in the Baltic Sea. There will be a total prohibition of this gear in the Baltic Sea from 1st January 2008. This total ban is preceded by a progressive phasing out. In 2005, the maximum number of vessels, which may be authorised by a Member State to use driftnets, shall not exceed 60% of the number of fishing vessels that used driftnets during the reference period 2001 to 2003. In 2006 and 2007, this maximum number of vessels shall not exceed 40% and 20% respectively of the reference number.	Germany and Sweden provided their information to the Commission on time. Poland did not make any submission. All the other Member States provided late submissions.
Verification of national monitoring/ control arrangements and infringement procedures	Behaviour seriously infringing the rules of the CFP	In 1999 a system was devised "to increase transparency in the enforcement of CFP rules and to encourage the adoption of adequate and dissuasive sanctions when serious infringements are detected" 26. Council Regulation (EC) No.1447/1999 described types of behaviour (see table 7) that were considered likely to cause "serious infringement" of rules relating to important components of the CFP: fish stock conservation, monitoring of fishing activity and marketing of fisheries products. Member States are required to provide annual returns to the Commission on the number of serious infringements, the proceedings that were initiated (i.e. administrative or criminal) and a description of the outcome. The Commission then uses the data to present statistical information (i.e. the number of cases, the number of cases where Member State authorities have detected infringement by nationals and non-nationals, the number of penalties/sanctions, the number of seizures, the average fine and the amount paid by the fishing industry in each Member State as a consequence of serious infringement) that allows for comparison between Member States.	The following shows the number of serious infringements and the percentage for which penalties were imposed in 2003: Denmark 485 (59%); Germany 128 (100%), Finland 18 (50%); Sweden 97 (24%). Drawing any meaningful conclusions from these figures is not possible for a number of important reasons, among them: each Member State has its own judicial or administrative system for dealing with and sanctioning offences; there are no Community standards for inspection, so direct comparison is not possible; and, the levels of fishing and enforcement effort are not taken into account.
	Infringement procedures	Infringement procedure means any procedure adopted by the Commission and formally initiated against a Member State for failure to comply with basic or secondary Community law (i.e. provisions in the Treaties, Regulations and other legislative instruments). If the Commission considers a Member State has breached Community law, it asks the State concerned to present its observations within a specified period of time by sending it a letter of formal notice. If the State continues to fail to meet its obligations, and if the Commission does not change its views as a result of the Member State's observations in response to the letter of formal notice, the Commission then delivers a reasoned opinion with which the Member State must comply within a given period. If the Member State fails to do so, the Commission may then refer the matter to the Court of Justice (this procedure is called a referral). The Court of Justice delivers judgements on any matter referred to it, and these judgements are then binding on the Member States. In 2004, 69 procedures were underway.	The following Member States had procedures against them in 2004: For exceeding Member State quota: Finland (2), Denmark (10), Sweden (6) For failure to provide catch/fishing effort data: Sweden (1), Finland (1) For failure to implement VMS: Estonia (1)

			performed in 2004
Verification of national monitoring/ control arrangements and infringement procedures	ission Commission States and different s national a activities, Evaluation providing concerned 2004 a B/ carried ou In 2004, t visits were	he following number of EU Commission inspection e made to the Baltic Member States: Denmark 6, Lithuania 2, Poland 2, Germany 6, Latvia 2, Finland 1	The BACOMA evaluation programme showed that all the relevant Member States had implemented the BACOMA measures. The VMS verification programmes showed that not all legislation was in place and the lack of a mandate often hindered the effective enforcement of the CFP; not all vessels required to be fitted with a VMS terminal had been; the VMS systems of most of the Member States did not demonstrate the potential to monitor and control fishing vessel activity; and the technical aspects of most systems were limited.

The average financial penalty imposed by each of the EU Baltic Sea Member States in 2003 was: Denmark € 455, Germany € 379, Finland € 282, Sweden € 742. These represent some of the lowest financial penalties for all the EU Member States in 2003, with Finland being the lowest of all. The average between the Baltic States was € 464.50 compared to an overall EU average of € 4,664 – which was still considered to be wholly inadequate as a deterrent by the Commission.

With respect to its effectiveness it can only be concluded that the serious infringement report does not effectively achieve its aim of increasing transparency, nor does it appear to have encouraged the adoption of adequate and dissuasive sanctions.

Infringement procedures

In discussion with Commission representatives they were of the opinion that, until recently, the long drawn-out process of infringement procedures has not been an effective incentive in ensuring that Member States meet their CFP obligations. However, since July 2005 when the European Court imposed considerable fines on France for failing to meet inspection requirements, there had been a sudden improvement in the way in which Member States were reporting on many aspects of the CFP. Up until this point it appears that Member States administrations had not taken the Scoreboard seriously, considering it a burden rather than a way of promoting improved compliance.

EU Commission inspections

With limited resources the Commission has undertaken a considerable number of inspections throughout the EU and, more specifically, the Baltic Sea. In some instances, for example VMS verification, significant failings were highlighted but no indication on what follow up action the Commission intended to take was given. Without this, anybody who is interested in equitable and transparent application of the rules is left with more questions than answers.

Effectiveness of the Compliance Scoreboard

The Compliance Scoreboard has provided a means by which comparisons between Member States can be made and inference drawn as to which are "good" and "not so good" at meeting their CFP obligations. However, because some of the indicators are, at best, limited in their meaning, accurate comparison is not possible. Also, in some instances, the Scoreboard fails to show what follow-up action the Commission is taking to ensure that a failing in compliance is improved. As a result, there is little reassurance that, at both the Member State and the Commission level, effective systems are in place to improve or report on compliance.

Tri-annual Commission evaluation reports

The Commission has also chosen to use an existing requirement, afforded by Article 35 of the Control Regulation (EEC No. 2847/93)³¹, along with a more recent obligation, afforded by

Table 7. The list of types of behaviour which are considered to be serious infringements of the CFP rules

- . Obstructing the work of fisheries inspectors
- Falsifying, concealing, destroying or tampering with evidence
- Obstructing the work of observers
- · Fishing without holding a fishing licence/permit or any other authorisation required for fishing
- · Fishing under cover of a falsified document
- · Falsifying, deleting or concealing the identification marks of the fishing vessel
- Using or keeping on board prohibited fishing gear
- Using prohibited fishing methods
- · Not lashing or stowing prohibited fishing gear
- · Directed fishing for, or keeping on board of, a species subject to a fishing prohibition
- Unauthorised fishing
- · Failure to comply with minimum landing sizes
- . Failure to comply with the rules and procedures relating to transhipments
- Falsifying or failing to record data in logbooks
- Tampering with the satellite-based vessel monitoring system
- · Deliberate failure to comply with rules on remote transmission of movements of fishing vessels
- Failure of a third country vessel to comply with the rules when operating in Community waters
- · Landing of fishery products not complying with the community rules on control and enforcement
- Storing, processing, placing on sale, and/or transporting fish products not meeting marketing standards

Article 27(4) of the reformed CFP Framework Regulation (EC No. 2371/2002), as a means of improving transparency. Under both of these, it is required to publish a tri-annual evaluation report on control and enforcement of the rules of the CFP by Member States. The reports are based on annual control reports submitted by Member States and observations made by the Commission.

The latest report was published in 2005³² and covers the pre-accession period 2000-2002. The report is supported by a 230-page annex that provides an evaluation of each Member State, including a description of the prominent features of the fisheries; the fisheries-related activities that need to be controlled; the legal and administrative system in place; a description of the existing means of control and their use in monitoring, inspection and surveillance activities; a description of the cooperation exercised both at national and international level; and, finally, the Commission's assessment of the state of fisheries control in the Member State for the period in question.

A summary of the findings of the report for Denmark, Sweden, Finland and Germany is provided in Annex IV.

These reports are potentially very useful for com-

paring and contrasting the different approaches and issues in each Member State. However, because of the significant task in collating and putting this information together and because the Commission undertakes to provide Member States with an opportunity to comment as well as to suggest any additional topics to be included, by the time they enter the public domain, they are minimally 3 years out of date. Also, the value of the reports is diluted because the Commission does not include how it has or intends to deal with any shortfalls that may be described in the evaluations.

Ad hoc stakeholder meetings

Finally, under the theme of transparency, the Commission has also committed to provide additional information to stakeholders by convening ad hoc meetings specifically tailored to the exploitation of the stocks concerned in the relevant regions. With the emphasis on stock recovery plans it seems likely that it will be within these regions most of these meetings will take place.

The regulatory framework

All of the EU Regulations that apply to the Baltic Sea cod fishery are listed in Annex V and, where possible, links provided. All Regulations that are applicable to the CFP can be found on the European Commission's Fisheries and Maritime Affairs website at the following address:

http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/regl_en.htm#general

This section focuses on the process and the consequence of those regulations that allocate the cod quotas to each EU Baltic Member State and provide technical conservation measures for the Baltic Sea cod fishery.

The TAC and quota Regulation

2005 marked the transition from the IBSFC to bi-lateral, annual agreement on TACs and quotas between the EU and the Russian Federation it also marked a change in the process and timetable for their establishment.

In June 2005, the Commission received ICES scientific advice on fishing opportunities in the Baltic Sea for 2006. ICES advised the setting of two separate TACs: 28,400 tonnes and 14,900 tonnes for the Western and Eastern Baltic, respectively.

The Commission then called upon its own advisory committee the Scientific, Technical and Economic Committee on Fisheries (STECF)³³ to assess the information and take into account economic consequences of the ICES advice. This was the first time the STECF had been used in the Baltic Sea process as, up until then, this function was handled within the framework of the IBSFC.

After receiving advice from the STECF the Commission, on behalf of the Community, attended the final meeting of the IBSFC in September and discussed the TAC, quotas as well as fishing conditions with the Russian Federation. A proposed TAC of 28,400 and 45,339 tonnes for the western and eastern stocks, respectively, was agreed. In an attempt to reduce the burden of work for the Council at the end of year, the Commission presented its proposals to the Council in November³⁴ for consideration; however, it was not until the December meeting that final negotiations and agreement took place.

Traditionally the IBSFC had agreed one TAC for the whole of the Baltic Sea, however, the Council chose to accept ICES and Commission advice and set two separate TACs. They set the Western cod TAC at 28,400 tonnes and Eastern at 45,339 tonnes.

The Commission and the Council explained that they increased the Eastern TAC because of a combination of fishing effort reductions, seasonal closures as well as strengthened control and monitoring of fishing activities.

In 2006, the Baltic Sea TACs for 2007 were agreed at the October Fisheries Council meeting. ICES recommended a TAC of 24,500 tonnes for the Western stock and a zero TAC for the Eastern stock. ICES also stated that a recovery plan should be developed and implemented before a fishery was re-opened. The Council set TACs of 26,696 tonnes and 40,805 tonnes, respectively.

These agreed TACs were conditional on the setting up of the cod multi-annual plan by 30 June 2007. If an agreement is not reached by that date, the reductions will automatically increase to 15% for the two stocks concerned.

Furthermore, the number of fishing days was reduced by 10%.

Table 8. Shows a summary of the Baltic Sea cod TAC for 2006 and 2007 and compares it with the ICES advice.

ICES Advic		Agreed T (ton	
Western	Eastern	Western	Eastern
28,400	14,900	28,400	45,339
ICES Advic		Agreed T (ton	
24,500	0	26,696	40,805

Source: Data taken from Council Regulation (EC) No. 52/2006 & Commission Press release, October 2006

Technical and control measures

Council Regulations EC No. 2187/2005³⁵ and EC No. 52/2006 provide the technical conservation measures and the conditions that presently apply for EU Baltic Member States and the cod fishery. Both of them reflect the legacy of IBSFC regulations and newer EU measures.

Council Regulation (EC) No. 2187/2005 - "for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the sound" provides new and up to date rules on all the fisheries in the Baltic Sea. The intention of this Regulation is to streamline and simplify some of the regulations that resulted from the EUs participation in the IBSFC. Within the Regulation, specifications for fishing gears targeting cod are laid down and conditions for bycatch of cod in other fisheries is also specified.

Annex III, to Regulation 52/2006 provides "transitional technical and control measures" which are specifically designed for the cod fishery and are intended to enhance measures that were in place within the IBSFCs cod recovery plan and also act as interim measures during the period prior to the implementation of the EU's own cod recovery plan. As the name suggests technical measures with respect to area closures are dealt with as well as control measures setting out how or what Member States are required to have in place to effectively manage the cod fishery.

With the accession of the new Member States and, in anticipation of a future recovery plan, the Commission undertook an evaluation in 2005 of how all the EU Baltic Member States were implementing Annex III. Having completed half of its visits to Member States the Commission presented the interim results of its assessment at the final IBSFC meeting, in September 2005. The Commission chose not to name the four Member States, preferring to wait until it had completed its fieldwork and shared the findings with all the Member States before publishing a report in June 2006. However, through the course of this study, it was clear that the four Member States were Poland, Latvia, Lithuania and Estonia.

In the presentation "key indicators" were used to assess the level of compliance by the Member States for the implementation of the technical and control measures as well as the registration and accuracy of catches and catch information.

Implementation of the technical and control measures

In its limited summary of findings, the Commission considered there had been successful administrative implementation of the technical and control measures and unspecified measures had resulted in improved control and enforcement. On the less positive side, not all measures were effective or properly implemented and some of the Member State Inspectorates had expressed concern over the complexity of the regulations.

From an observers point of view the assessment does not look particularly promising. The two areas where the four Member States received a particularly poor assessment, i.e., inspection benchmarks and exchange of information between Member States, likely mean that at the time, little or no progress had been made on these aspects. Without further details it is difficult to draw any strong conclusions other than to say that, apart from the ability to issue special fishing permits and logbooks to vessels over 8 m, the system appears to be far from satisfactory.

Table 9. Shows the key indicators and the level of compliance for the implementation of technical and control measures for four Baltic Sea Member States in 2005.

Key Indicator	Compliance				
Special fishing permit					
Designated ports					
Logbooks for vessels > 8m					
National control action programme					
Prior notification					
Inspection benchmarks					
Closed areas and summer ban					
Exchange of inspectors and joint surveillance					
Exchange of information between Member States					
Inspections and follow-up action in case of non-comp	liance 🔲				
☐ Full compliance					
■ Progress being made					
Little or no progress					

The registration and accuracy of catches and catch information

The second part of the Commission's assessment focused on the ability of Member States to effectively monitor landings.

Logsheets, landing declarations and sales notes provide the landing data from which the uptake of quota is measured against the vessel and the Member State. Discrepancies in these sources directly translate into discrepancies in quota management; therefore, the accuracy of this information is very important.

In its presentation, the Commission confirmed that the use of logsheets, landing declarations and sales notes was in place. However, there were some serious failings in the accuracy and submission of the data:

- 35% of the logsheets they examined were outside the permitted level of tolerance. Similarly, comparisons between landing declarations and sales notes resulted in 19% of the landing declarations being outside of the allowed tolerance.
- For an undisclosed number of landings observed by the Commission Inspectors, approximately 21% failed to submit a sales note, 23% failed to submit landing declarations and 5% failed to submit a logsheet within the required timescales.

It is the role of Member State Fisheries Inspectorates to reduce these discrepancies by educating fishermen and fishermen's representatives and, where appropriate, take action to penalise those who do not comply.

Table 10. Shows the indicators used to assess the four Member States ability to apply important requirements with respect to registering landing information and their ability or willingness to follow up on administrative inaccuracies.

Key Indicator Complia	ance			
Implementation of logbooks, landing declaration, etc.				
Computerised catch registration systems in place				
System to record catches by < 8m vessels				
Quality and return of statutory documents				
Prior submission of logsheets				
Logbook tolerance of 8%				
Delay in getting catch data onto the system				
Cross-checking of logbooks with statutory returns				
Cross-checking of logbooks with VMS				
Logbook registration system in place				
Inspections and follow-up action in case of non-compliance				
☐ Full compliance				
☐ Progress being made				
■ Little or no progress				

Again, without the full details of the report it is difficult to draw any strong conclusions. It appears that the ability to register catch data onto a national data system has been achieved. However, the practical aspects associated with the, all important, inspection of logsheets, their

cross-referencing with VMS data and the followup of any apparent inaccuracies seem to have significant shortfalls.

Misreporting landings

The level of misreporting of cod catches and the apparent effect landing inspections had on subsequent catch and landing information formed the final part of the Commission's presentation. The methodology was described:

- Landings for a number of vessels were observed
- Comparisons were made between actual and estimated landings submitted by fishermen on their statutory returns.
- Landing Per Unit Effort (LPUE) was calculated for the sampled landing, i.e. the weight of landed cod divided by the reported fishing effort.
- The LPUE from inspected landings were compared with the LPUE from reported landings before and after the inspection. 27 landings by < 10m vessels and 94 landings by > 10m vessels were observed and a total of 607 landing records were analysed.

Without exception, in all the Member States that were assessed the average LPUE of the inspected landing was higher than the average LPUE for landings before and after the inspected landings. Also of note, the LPUE for the landings that followed the inspected landings were all higher than those prior to the inspection. A possible explanation or inference is that, as a result of the inspection, the behaviour of the skipper may have been influenced such that a more accurate return was made.

The average difference between LPUE of inspected and non-inspected landings for each of the Member States was calculated at 21.6%, with differences ranging from 3.0% to 54.1%.

In its summary and presentation of key findings, the Commission confirmed that it would continue to conduct further analysis of the information gathered on its mission and would also apply similar methods when visiting the remaining 4 Baltic Sea Member States.

It concluded that:

• The Commission's sampling programme

- appeared to bear out that significant underdeclaration of catches was taking place;
- The interim and additional conditions for monitoring, inspection and surveillance in the context of recovery of cod stocks in the Baltic Sea were mostly being implemented, however, some measures (undisclosed) were not achieving their intended outcome or were not considered to be useful;
- Extra enforcement effort had been deployed in most cases but additional resources for at sea or onshore enforcement were unlikely in the near future.
- Comprehensive and efficient catch registration systems are in place;
- There is scope for better cooperation between Member States;
- Cross-checking of statutory returns with in-

- spection and VMS data needed to be improved; and,
- The interim findings will be used to inform management arrangements for 2006 and beyond.

Technical and control measures for the cod fishery in the Baltic Sea in 2006

Between them, Council Regulations EC No. 2187/2005 and EC No. 52/2006 provide quite an impressive package of technical and control measures that, if they were correctly applied and adhered to, should enable the effective management of the Baltic Sea cod fishery. Table 11 provides a summary and analysis of the fisheries management conditions that apply to fishing for cod within the Baltic Sea for 2006.

Table 11. Shows the fisheries management conditions that apply to fishing for cod within the Baltic Sea and comments on issues related to their application.

General headings/ Sub-headings	Detail of conditions for fishing and obligations on Member State authorities	Analysis and comments
Fishing effort limits	 In order to reduce effort on the cod stocks, the Western Baltic is closed to fishing with trawls, seines and gillnets using a mesh ≥ 90 mm between 15 March and 14 May. Similarly, the Eastern Baltic is closed between 15 June and 14 September. Also, outside of the "closed season" an additional 30 days of no fishing using these methods and mesh sizes are in place. For the Eastern Baltic, an additional 27 days are in place. Fishing with gillnets with a mesh ≥ 110 mm from vessels < 12 m is allowed throughout the year. Vessels fishing for pelagic species such as herring and sprat may use a mesh as small as 16 mm but can only retain a 3% bycatch of cod. 	Member States are required to describe how they intend to enforce these effort restrictions. This provides an indicator as to whether Member States have minimally met their obligations, however, there is no measure as to how effective this has been as there is no requirement to show when, where and which vessels these restrictions apply to. As a result, there is limited opportunity to confirm whether the measures that have been put in place are effective.
Closed areas	There is one area permanently closed to mobile fishing gear and there are three areas that are temporarily closed to all forms of fishing between 1 May and 31 October	The Commission's original proposal for 2006, as set out in COM(2005)598 ³⁶ , proposed that the three areas were permanently closed but the Council of Ministers compromised with the temporary closures. VMS should help the monitoring of closed areas, however, it only shows where a vessel is and does not show whether it is fishing. If a vessel is transiting a closed area it must have its fishing gear stowed. Closed areas require dedicated Fisheries Patrol Vessel (FPV) time. Only by inspecting a fishing vessel can it be confirmed that a vessel is transiting and not fishing.
Monitoring, inspection and surveillance in connection with the recovery of cod stocks	 Vessels > 8 m require a special permit to fish for cod in the Baltic Sea. To be eligible the vessel must have had a permit in 2005. If the vessel did not hold a permit the Member State may issue the vessel a permit but must ensure that a vessel or vessels of the same engine size (measured in kW) are prevented from fishing, i.e. the capacity of the cod fleet must not increase. 	Member States are obliged to publish a list of vessels with special permits on their website. This provides an indicator to show that Member States have an administrative system in place to issue special permits but it does not show whether capacity is minimally being maintained. Only by providing more detailed information could this be confirmed.
Logbooks	 Vessels > 8 m are required to keep a logbook There is an 8% margin in error allowed when estimating and recording the live weight of cod. Logsheets must be submitted within 48 hours of landing. 	In reality, unless logbook offences are extreme (e.g., very late return, significant differences between actual and estimated weights, blatant and evidenced-based misrecording of large quantities of species) they tend to be used as additional evidence for more "serious offences".
Prior notification	 Vessels ≥ 15 m in length are required to be fitted with a Vessel Monitoring System (VMS). Vessels with a VMS are required to report/transmit their catch on a daily basis to the Member State authorities. If the vessel does not have a VMS and has > 300 kgs of cod on board and is moving either to or from the Western or Eastern Baltic it must report/transmit the time, position, quantity of cod onboard, and where and when they intend to land. They must not start land their catch until they are authorised. 	Reporting daily catches is meant to reduce the likelihood of misreporting area of fishing. To be effective there needs to be an inspection at sea to confirm the quantities on board.

General headings/ Sub-headings	Detail of conditions for fishing and obligations on Member State authorities	Analysis and comments
Designated ports	If a vessel has > 750 kgs of cod on board it must only land at a designated port.	Member States that have designated ports are obliged to publish them on their official website. Some of the designated ports are so large that potential landing sites are many and so difficult to monitor. Designated time and place of landing would be more effective.
Weighing of cod	Authorities may have any quantity of cod weighed before it is transported.	This obliges the various people involved on discharging to comply with inspectors' wishes.
VMS messages	The VMS is minimally required to record the entry and exit from port and between sea areas where rules on access and stocks are in place.	The Member States are required to have a system in place that allows for cross-checking VMS data with logsheets. The Commission is able to request this information. This provides an indicator that necessary checks are in place.
Trans-shipment	Trans-shipment (the transfer between vessels) of cod is prohibited.	During interviews (see page 15) it was confirmed that trans-shipment of pelagic species between Russian and some EU vessels has taken place in the recent past. Onboard inspection is required to confirm that excessive quantities cod are not involved.
Transport	 A landing declaration must accompany quantities of cod > 50 kgs that have been landed by vessels ≥ 8 m in length. 	This is meant to ensure that if the vehicle is inspected at any point during its journey there will be documentation to show the origin of the cod.
Joint working	Member States are required to undertake "joint operational procedures" with other Member States.	As well as other Member State inspectors, Commission inspectors may also participate.
National control action programmes	 Member States are required to develop and publish on their official websites a national control plan. Common rules for national control programmes have been set: (a) Inspection and surveillance will focus on vessels likely to catch cod and priorities will be set on those sectors most affected by fishing opportunities; (b) Random checking of transport and marketing of cod; (c) Cross-checking to test the effectiveness of inspection and surveillance; (d) "Benchmarks" will be set by each Member State and advertised on official websites which will aim to meet the following targets: Inspections will aim to cover 20% (by weight) of cod landings, or, that in a 3 month period the vessels that account for 20% or more of the cod landings are inspected at least once. Market inspections will aim to cover at least 5% of cod that is offered for auction. Patrol days in the cod management areas. Aerial surveillance effort. Member States are required to aim to specify in their control programmes the following: (a) the number of shore-based and sea-going inspectors and when and where they are deployed; (b) the number of patrol vessels and aircraft and the areas in which they will be deployed; (c) the budget for undertaking enforcement; (d) a list of designated ports; (e) a description of how compliance is achieved in the requirement for prior notification; 	The Member States are able to set their own "benchmarks" and only have to "aim" to specify their means of control. Therefore, the minimum for each need only be applied. Information should be displayed on national authorities websites by 31 January. At the time of writing the majority of Member States had failed to provide the information in this form. Common rules are established but there is no common inspection protocol or criteria so, for example, a vessel could land in Sweden and be inspected in one way and then land in Poland and be inspected in a different way. A standardised approach may provide for improved confidence in inspections, however, there would still need to be checks undertaken by the Commission to ensure that the standard was being upheld.

General headings/ Sub-headings	Detail of conditions for fishing and obligations on Member State authorities	Analysis and comments
National control action programmes	(f) a description of how compliance is achieved ensuring tolerance in logbook estimates, designated ports and the weighing of landed cod; and, (g) a description of procedures for sea- and shore-based inspections and communicating and working with other Member States. • The Commission will evaluate the compliance with and the results of the national control programmes with the Committee for Fisheries and Aquaculture.	
Fishing gear and condition of their use	 Various mesh sizes and other gear specifications are set for static and mobile fishing gears that target cod. For those fishing gears that are used to target other species bycatch limits are set. Examples of restrictions on fishing gear used to target cod include: (a) 110 mm mesh size for gillnets. (b) 48 hour maximum immersion time for gillnets. (c) Vessels ≤ 12 m may use up to 9 km of net, vessels ≥ 12 m may use up to 21 km of net. (d) 105 mm for diamond mesh and 110 mm for square mesh windows in BACOMA and T90 trawls. 	Measurement of mesh size is only meaningful when it is undertaken at sea on fishing gear that has been observed to be fishing. Enforcing immersion time restrictions can only be applied if the gear is marked and its setting was observed. The configuration and construction of trawls are complex and difficult even for experienced fisheries officers to enforce with confidence. Only blatant abuse of restricting mesh size is relatively easy to enforce. By September 2007 the Commission will present to the Fisheries Council an assessment of the selectivity on cod of mobile gears.
Minimum landing size	The minimum landing size of cod in the the Baltic Sea is 38 cm	

Notes

- ¹ ICES. 2005. Report of the Baltic Fisheries Assessment Working Group (WGBFAS), 12-21 April 2005, Hamburg, Germany. Page 150 of 589.
 - http://www.ices.dk/reports/ACFM/2005/WGBFAS/2-Cod.pdf
- ² ICES. 2005. Report of the ICES Advisory Committee on Fishery Management, Advisory Committee on the Marine Environment and Advisory Committee on Ecosystems, 2005. ICES Advice. Volumes 8, page 62.
 - http://www.ices.dk/products/AnnualRep/2005/ICES%20Advice%202005%20Volume%208.pdf
- Owing to the delay in data collation, 2005 is the most recent year for which complete data is available
- 4 "Wiadomosci Rybackie" (Fisheries News) March April 2005 http://rybackie.pl/files/WR3-4.05.pdf
- ⁵ ACFA white fish study 2005
- ⁶ IFM publication website http://www.ifm.dk/publications.html
- 7 "Norms" are often defined as typical actions, attitudes and expectations concerning the behaviour and attitude of peers. Furthermore, norms are seen as social pressure that creates both positive and negative sanctions.
- ⁸ Gazeta Wyborcza, 4 May, 2006 http://gospodarka.gazeta.pl/gospodarka/1,33181,3324426.htm
- 9 "Klondyking" is the term given to trans-shipment of fish from catching vessels to a "mother" ship where the fish is processed
- Espersen Ltd http://www.espersen.dk/Default.asp?m=42
- Regulation (EC) No 178/2002 of 28 January2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety http://europa.eu.int/eur-lex/pri/en/oj/ dat/2002/l_031/l_03120020201en00010024.pdf
- ¹² Conservation International: www.conservation.org
- Fisheries Science Partnerships http://www.cefas.co.uk/FSP/default.htm
- ¹⁴ European Commission press release http://ec.europa.eu/comm/ fisheries/news_corner/press/inf06_09_en.htm
- Regulation (EC) No. 2371/2002, on the conservation and sustainable exploitation of fisheries resources http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_358/l_35820021231en00590080.pdf
- ¹⁶ Proposal for a Council Regulation establishing a multi-annual plan for the cod stocks in the Baltic Sea and the fisheries exploiting those stocks (COM(2006)411)
- 17 "Towards uniform and effective implementation of the Common Fisheries Policy" http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_03_130_en.pdf
- "Compliance with the rules of the Common Fisheries Policy "Compliance Work Plan and Scoreboard" http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_03_344_en.pdf
- ¹⁹ Council Regulation 52/2006 fixing the fishing opportunities

- and associated conditions for certain fish stocks and groups of fish stocks applicable in the Baltic Sea for 2006 http://europa.eu.int/eur-lex/lex/Lex/UriServ/site/en/oj/2006/l_016/l_01620060120en01840199.pdf
- 20 "Compliance with the rules of the Common Fisheries Policy Compliance Work Plan and Scoreboard" http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_03_344_en.pdf
- 21 "Towards uniform and effective implementation of the Common Fisheries Policy" http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_03_130_en.pdf
- ²² Commission staff working paper. Proposal for a Council Regulation establishing a Community Fisheries Control Agency http://europa.eu.int/comm/secretariat_general/impact/docs/SEC_ 2004_0448_1_EN.pdf
- ²³ Council Regulation (EC) No. 768/2005. Establishing a Community Fisheries Control Agency http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_128/ l_12820050521en00010014.pdf
- 24 The CFP Roadmap http://europa.eu.int/comm/fisheries/reform/ro-admap_en.htm
- 25 Link to the three compliance scoreboards: http://europa.eu.int/ comm/fisheries/scoreboard/index_en.htm
- ²⁶ Fisheries & Maritime Affairs, 2005 Press Release, http://europa.eu.int/comm/fisheries/news_corner/press/inf05_21_en.htm
- OM(2001)650 http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2001/ com2001_0650en01.pdf
- ²⁸ COM(2002)687 http://europa.eu.int/comm/fisheries/doc_et_publ/ factsheets/legal_texts/docscom/en/com_02_687_en.pdf
- ²⁹ COM(2003)782 http://europa.eu.int/eur-lex/en/com/pdf/2003/com2003_0782en01. pdf
- 30 COM(2005)207 http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/ com2005_0207en01.pdf
- 31 Control Regulation http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ. do?uri=CELEX:31993R2018:EN:HTML
- 32 Commission report on the monitoring of the Member States' implementation of the CFP 2000-2002 http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2004/com2004_0849en01.pdf
- 33 Scientific, Technical and Economic Committee on Fisheries http://europa.eu.int/comm/fisheries/faq/committee_en.htm#stecf
- ³⁴ Commission proposal for 2006 Baltic Sea TACs and quotas http://europa.eu.int/comm/fisheries/news_corner/press/inf05_69_ en.htm
- 35 Council Regulation EC No. 2187/2005 http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_349/ l_34920051231en00010023.pdf
- 36 http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_05_598_en.pdf

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References

Anderson, J.L., 2002. Reasons for Technical Inefficiency of Danish Baltic Sea Trawlers. Danish Research Institute of Food Economics. Division for Fisheries Economics and Management

Danish Directorate of Fisheries, 2002. Yearbook of Fishery Statistics 2002. ISBN 87-89443-18-7 ISSN 0907-9238

DW World, 2004

http://www.dw-world.de/dw/article/0,2144,1362542,00.html

EU Commission, 2004

http://europa.eu.int/comm/fisheries/enlargement/info_estonia_en.pdf

EU Commission, 2004a

http://europa.eu.int/comm/fisheries/enlargement/info_latvia_en.pdf

EU Commssion, 2004b

http://www.eu.int/comm/fisheries/enlargement/info_poland_en.pdf

Eurofish, 2000

http://www.eurofish.dk/indexSub.php?id=584

European Commission, 2001. Commission Staff Working Paper, Fisheries Control in Member States, Denmark. SEC(2001)

FAO 1999

http://www.fao.org/fi/fcp/en/DEU/profile.htm

FAO 2001

http://www.fao.org/fi/fcp/en/POL/profile.htm

FAO, 2004

http://www.fao.org/fi/fcp/en/DNK/profile.htm

FAO. 2004a

http://www.fao.org/fi/fcp/en/SWE/profile.htm

FAO, 2004b

http://www.fao.org/fi/fcp/en/RUS/profile.htm

FAO, 2005

http://www.fao.org/fi/fcp/en/FIN/profile.htm

FAO, 2005a

http://www.fao.org/fi/fcp/en/EST/profile.htm

FAO, 2005b

http://www.fao.org/fi/fcp/en/LVA/profile.htm

ICES, 2005. Report of the Baltic Fisheries Assessment Working Group (WGBFAS), 12-21 April 2005, Hamburg, Germany. 589 pp.

Latvia National Board of Fisheries, 2005 http://www.vzp.gov.lv/?sadala=110

OECD, 2001

http://www.oecd.org/dataoecd/17/21/1836994.xls

OECD, 2003

http://www.oecd.org/dataoecd/10/57/34429370.pdf

OECD, 2005

http://www.oecd.org/dataoecd/11/45/34428239.pdf

OECD, 2005a

http://www.oecd.org/dataoecd/9/31/34431367.pdf

OECD, 2005b

http://www.oecd.org/dataoecd/11/40/34429179.pdf

Polish Ministry of Agriculture and Rural Development, 2003 http://www.funduszestrukturalne.gov.pl/NR/rdonlyres/56D3E5E9-0D1D-411C-8811-B35170002DE5/0/sop_fisheries_final_draft_.pdf

Polish Economic Affairs & Labour, 2005. EU Structural Funds in Poland.

http://www.funduszestrukturalne.gov.pl/English/SOP++Transport/SOP+Fisheries/

Polish Ministry of Agriculture and Rural Development, 2003. http://www.funduszestrukturalne.gov.pl/NR/rdonlyres/56D3E5E9-0D1D-411C-8811-B35170002DE5/0/sop_fisheries_final_draft_.pdf

RSPB, 2004. Assessment of the sustainability of industrial fisheries producing fish meal and oil. Poseidon Aquatic Resource Management Ltd & the University of Newcastle upon Tyne

Annex I

Baltic Member States fishing and processing industries

Overview

The main target species for Baltic Sea fisheries are cod, Baltic herring and sprat. They form about 95 % of the total catch. Other target fish species having either local economical importance or ecosystem importance are Baltic salmon, plaice, flounder, dab, brill, turbot, pike-perch, pike, perch, vendace, whitefish, burbot, eel and sea-trout.

The main fisheries for cod in the Baltic use demersal trawls, pelagic trawls and gillnets. There was substantial increase in gillnet fisheries in the 1990s but because of the change in stock age composition in the late 1990's and early 2000,

the share of the total catch of cod taken by gillnets has decreased and that of demersal trawls increased again.

Pelagic fisheries in the Baltic are dominated by pelagic trawlers catching a mixture of herring and sprat. The proportion of the two species in the catches varies according to area and season. The catches of the pelagic species are used for human consumption, reduction to oil and meal and to animal fodder, and is largely dependent on market forces. The following table shows the reported quantities, area and method of capture for cod in the Baltic Sea in 2004.

Country	T=Trawl	ICES Divisions in the Baltic Sea with reported catches of cod									
	G=Gillnet	Western Stock Eastern Stock									
		22	23	24	25	26	27	28	29	30	Total
Denmark	T G	5,238 1,082	1,202 725	4,277 789	6,209 1,145	26 15	0	0	0 0	0 0	16,952 3,756
Germany	T G	2,771 0	0 0	1,268 612	2,659 0	0 0	0 0	0	0 0	0 0	6,698 612
Poland	T G	0 0	0 0	143 395	3,309 6,658	2,650 1,012	0 0	0	0 0	0 0	6,102 8,065
Finland	T G	0	0 0	0 0	354 489	0 6	4 0	0	0 0	0 0	358 495
Latvia	T G	0 0	0 0	0 0	423 2,496	602 992	4 30	193 95	0 0	0 0	1,222 3,613
Estonia	T G	0 0	0 0	0 0	0 1,183	0 5	0 3	0	0 1	0 0	0 1,192
Sweden	T G	0	0 393	701 1,026	7,491 4,060	15 9	246 185	0 24	0 9	0 4	8,453 5,710
Lithuania	T G	0 0	0	0 0	0 0	2,041 0	0	0	0 0	0 0	2,041 0
Russia	T G	0 0	0	0 0	0 0	1,520 1,890	0	0	0 0	0 0	1,520 1,890
TOTALS	T G T&G	8,009 1,082 9,091	1,202 1,118 2,320	6,389 2,822 9,211	20,445 16,031 36,476	6,854 3,918 10,772	250 218 468	193 119 311	0 10 10	0 4 4	43,342 25,322 68,664

Source: data from ICES Baltic Fisheries Working Assessment Group, 2005

DENMARK

The Baltic is the third most important fishing area for Danish fishermen – after the North Sea and Skagerrak, respectively (Anderson, 2002).

The overall contribution of the fisheries sector to the economy is small – about 0.5% – but it has a very strong importance to specific regions which are heavily dependent on fisheries for their livelihoods: north and west Jutland, and the island of Bornholm, where 95% of all landings by Danish vessels are made (European Commission, 2001).

Approximately 5,650 fishermen work on 3,831 vessels operating from Danish ports. The registered tonnage of the fleet is 99,720 gross tonnage (GT). The table below provides a breakdown of the categories and number of vessels within the Danish fleet.

Category of registered vessel	Number	
Side trawlers	256	
Stern trawler	218	
Other trawler	147	
Purse seine & combination vessels	198	
Danish seiners	78	
Longliners and gillnetters	1,138	
Traps, poundnets	1,574	
Dredgers and other vessels	226	
TOTAL	3,831	

Source: Danish Directorate of Fisheries, 2002

Cod are targeted by trawl and gillnets, with landings of plaice and flounder normally associated with the trawl fishery. Sprat and herring are targeted by trawl and purse seiners.

The trawler fleets are based in the main ports in Jutland and Bornholm with a large fleet of small gill netters located in all Danish ports (European Commission, 2001; Danish Directorate of Fisheries, 2002; FAO, 2004). The numbers of gillnetters has declined in recent years owing to the stock age composition with vessels switching to longlining or trawling. The main pelagic fisheries are conducted by a small fleet of purse seiners and large trawlers (ICES, 2005).

Broadly speaking there are three types of fishery in Denmark:

(i) The industrial fishery for fishmeal and fish oil. In the North Sea, sandeel is the main target

species along with Norway pout, blue whiting and sprat, whereas, sprat are targeted in the Skagerrak/Kattegat and Baltic Sea. Owing to high levels of dioxins which make them unsuitable for human consumption, herring has also been allowed to be targeted in some instances in the Baltic (RSPB, 2004).

- (ii) The pelagic fishery for human consumption, mainly herring and mackerel stored in tanks and landed whole; and,
- (iii) The demersal fishery for white fish (cod, hake, haddock, whiting, saithe), flatfish (sole, plaice, flounder), lobster and deep water prawns (FAO, 2004).

The table below indicates the total annual catch of fish from the Baltic Sea by Danish vessels.

Danish catches from the Baltic Sea (including The Belt and The Sound)

Main species	1993	1994	1995	1996	1997	1998
Herring	42,986	,	37,763	48,521 34,340 123,549	,	29,488 38,820 111.003

Main species	1999	2000	2001	2002	2003	2004
Herring	37,973	32,050 49,727 55,521	,	21,558 18,407 47,630	22,342 5,300 32,000	19,936 n/a 44,300

Source: adapted from Danish Directorate of Fisheries, 2002; ICES 2005; OECD, 2005

The processing sector

Because of the inability of the domestic fleet to meet the national demand of Danish processors, there is a great reliance on imports to sustain the industry. Denmark also acts as a "hub" for fish trade. Figures for 2000 indicate there were 738 companies dealing with processing and trade in fish products: 83 in smoking and drying, 47 in canning and filleting, 5 in fish meal and fish oil, 310 in wholesale trade and 293 in retail trade (FAO, 2004).

Employment in the fish processing sector between 1996 and 2000 is shown in the table below.

Number of employees in the fish processing sector in Denmark

Type of company	1996	1997	1998	1999	2000
Smoking and drying	1,512	1,913	1,568	1,578	1,704
Canning and filleting	6,473	5,220	5,251	4,962	4,859
Fish meal and fish oil	603	499	488	472	424
Wholesale trade	3,237	3,399	3,292	3,099	3,060
Retail trade	909	901	955	998	1,048
Total	19,612	18,293	17,771	17,285	17,449

Source: adapted from FAO, 2004

SWEDEN

For Sweden, the Baltic Sea is the most important fishing area with 45% of total national landings in volume. Other important fishing areas include the Skagerrak (15%), the Kattegat (6%), the North Sea (12%) and the North Atlantic (23%) (FAO, 2004a).

The fishing sector in Sweden is decreasing – landings (value as well as quantity), vessel numbers and numbers of fishermen are all decreasing. At the same time, the prices of fish for consumption have increased, the amount of fish used for reduction has declined and exports of fish and fishery products have increased (OECD, 2005a).

The overall contribution of the fisheries sector to the economy is small – about 0.2%. On the west coast, where large processing facilities are based, the economic importance is more significant (FAO, 2004a).

There are approximately 1,860 fishermen (FAO, 2004a) and 685 vessels with a total gross tonnage of 41,700 (ICES, 2005). The fleet segments have differing capacities for adapting to changes in fishing possibilities. The smaller boats usually fish from a local port, whereas the mobility of larger vessels enables them to move between fishing grounds and land in other Baltic States. There are a large number of landing sites in Sweden. The most important are the harbours of Träslövsläge, Göteborg, Ängholmen, Smögen, and Strömstad on the west coast; and Trelleborg, Simrishamn, Karlskrona, Nogersund, Västervik, and Oxelösund in the Baltic. Several Danish harbours, such as Skagen and Hanstholm, are also important for landing Swedish catches (FAO, 2004a).

The table below provides a breakdown of the categories and number of vessels within the Swedish fleet.

Category of registered vessel	Number
Pelagic trawler (≥ 24m)	55
Pelagic trawler (< 24 m)	63
Demersal trawler (cod, ≥ 24 m)	16
Demersal trawler (cod, < 24 m)	73
Gill netters/longliners (≥ 12 m)	49
Gill netters/longliners (< 12m)	279
Shrimp trawler	60
Nephrops trawler	90
TOTAL	685

Source: ICES, 2005

The pelagic fisheries are conducted by four fleet categories:

- (i) Trawlers catching herring for human consumption.
- (ii) Trawlers catching sprat, some of which is used for human consumption but the majority is used for industrial purposes.

 Herring is caught as bycatch in this fishery.
- (iii) Coastal gillnet fishery for herring for human consumption.
- (iv) Purse seine fishery near the coast for spawning herring in the second quarter of the year. This fishery is also for human consumption (FAO, 2004a).

The demersal fishery for cod and flatfish in the Baltic is carried out by four fleet categories:

- (i) Trawlers targeting cod but with a bycatch of flatfish;
- (ii) Gillnetters and longliners targeting cod but with a bycatch of flatfish (longlines are starting to increase on the behalf of gillnetters in this category, possibly caused by the need for improved quality which deteriorates more so with the soak time of nets) (ICES, 2005)
- (iii) Gillnetters targeting flatfish but with a bycatch of cod.
- (iv) Coastal fishery with trap nets for eel and other species. Cod and flatfish are caught in this fishery (FAO, 2004a).

The large pelagic vessels accounted for more than 40% of the total national landings in terms of value and close to 90% of the landed volume in 2003 (FAO, 2004a). EU rules governing the

highest allowable level of dioxin in food entered into force on 1 July 2002. Sweden has an exemption from these rules relating to fish from the Baltic sold for human consumption, implying that products whose dioxin levels exceed these limits can be placed on the Swedish market. This derogation is currently in place until the end of 2006 (RSPB, 2004).

The table below shows the total reported landings of fish by Swedish vessels for human consumption and reduction purposes

Year	Coastal district	For human consumption	For reduction
2003	West Coast	28,628	27,256
	South Coast	24,540	3,909
	East Coast	15,163	6,710
	TOTAL	68,331	37,875
2004	West Coast	31,489	24,893
	South Coast	24,439	6,255
	East Coast	14,218	9,548
	TOTAL	71,146	40,696

Source FAO, 2004a

Most of the Swedish landings of herring and sprat from the Baltic are from the traditional trawl fishery with pelagic trawls as well as bottom trawls for herring. Fishing with gillnets for herring is of local importance in the coastal fisheries, especially in the northern Baltic.

The table below shows the total reported landings of cod by Swedish registered vessels between 1993 and 2004.

	Cod landings by Swedish vessels						
Year	1993	1994	1995	1996	1997	1998	
Cod Herring Sprat	12,048 66,400 92,700	22,190 61,600 135,200	27,966 47,200 143,700	36,119 25,900 158,200	28,374 44,100 151,900	16,609 71,000 191,100	
Year	1999	2000	2001	2002	2003	2004	
Cod Herring Sprat	15,927 48,900 137,300	19,172 60,200 120,600	21,026 29,800 85,400	14,588 29,400 77,300	14,585 31,800 63,400	14,163* 29,300 78,300	

* preliminary

Source: adapted from ICES, 2005

The processing sector

In 2002, the fish processing industry in Sweden was dominated by a relatively small number of large companies located on the Swedish west coast. There were 184 companies involved in

the processing sector in 2002. Many Swedish companies have been bought by or merged with Norwegian or Icelandic companies. This development has increased the availability of raw material to the Swedish industry, and has also been a way for Norwegian and Icelandic companies to get access to the EU market (FAO, 2004a).

Total employment in the industry in 2002 was 1,804 employees, a decrease of 16 per cent compared with 2001. Swedish fish processing companies import about 80 per cent of their raw material. Their main output is herring and cod products, but they also produce prawn, salmon, mackerel and haddock products. The majority of imports come from Norway and Denmark (FAO, 2004a).

FINLAND

The arctic climate is an important characteristic of the Finnish fisheries, with coastal waters covered by ice to varying degrees for part of the year. This means that the main fishing period lies between April and November but ice fishing using nets, hooks and traps is also common in the winter season (FAO, 2005).

While economically important in some coastal regions the fishing industry is not a significant economic force, contributing about 0.1 and 0.2 per cent of the national GDP in 2000 (FAO, 2005; OECD, 2005b).

The commercial fleet is largely comprised of smaller vessels, with the majority of the vessels less than 18 metres in length. Most fishing effort is focused in the coastal waters, but the largest volumes are caught in the offshore fisheries. The most important commercial species is Baltic herring followed by salmon, whitefish (*Coregonus lavaretus*) and sprat. Finland catches the second largest amount of fish for feed in the EU, after Denmark. Most of the herring and sprat are used in industrial processing for animal feed for the fur farming industry (FAO, 2005).

In 2003 there were about 1,000 full-time fishermen – in this instance, classed as anyone receiving more than 30% of their income from fishing – and a further 1,700 part-time fishermen. The number of fishing vessels was estimated to be about 3,494 in 2003. 95% of the vessels are shorter than 12 metres (OECD, 2005b).

Small scale	Pelagic	Demersal	Static
coastal	trawler	trawlers	gear
3,271	163	3	57

Source: FAO, 2005

Many of the trawlers use both pelagic and demersal trawls for herring. Pelagic trawls are often used to exploit the juvenile herring stocks, whereas demersal trawling is directed more to the adult part of the stock. Only a few vessels directly exploit sprat. However, sprat is the main bycatch in the herring fishery (ICES, 2005). Ninety per cent of the total catch is Baltic herring or sprat. Almost all the sprat and three quarters of the Baltic herring is used for reduction or otherwise as animal feed, leaving less than one third of the total catch for human consumption (FAO, 2005).

A few vessels target cod with demersal trawls in the Main Basin (SDs 24-25) as do a small number of gillnetters (FAO, 2005).

Main species	1995	1996	1997	1998	1999
Cod Herring Sprat	1,181 31,400 5,200	1,388 31,500 17,400	1,425 23,700 24,400	1,201 24,800 25,700	1,168* 17,900 18,900
Main species	2000	2001	2002	2003	2004
Cod	775	856	228	650	1,193*

*preliminary Source: ICES 2005

A coastal trap net fishery for herring, salmon and European whitefish (*Coregonidae*) is common near the coast and inside archipelagos (FAO, 2005).

The processing sector

There are a few large processing plants and numerous small family businesses. There were 228 processing plants in 2001. They mostly processed domestically landed fish (approximately 35,000 tonnes), but also around 6,000 tonnes of imported fish (FAO, 2005).

Over half of the Baltic herring used for human consumption is deep frozen, whereas half of the

rainbow trout is consumed in the form of fillets. The majority of fish for human consumption is processed into fillets; deep-frozen fish are the second most frequently consumed form of fish (OECD, 2005b).

ESTONIA

Fisheries do not play a significant role in the Estonian economy, contributing about 0.3% to the GDP. It is of economic, social and cultural importance in coastal areas where alternative income sources are scarce. Fisheries employment is concentrated in the western part of Estonia, the islands along the west coast and the coast of the Gulf of Finland (EU Commission, 2004). Approximately 2,300 people were employed in the fishing industry in 2003 (FAO, 2005a).

In 2004 the Estonian Baltic Sea fishing fleet consisted primarily of trawlers: 152 fishing vessels of over 12 m and 888 vessels of under 12 m. The fishery is predominantly focused on herring and sprat. Pelagic trawls take the most significant proportion of the catch but pound net fisheries in the Gulf of Riga can also take large amounts. Cod is all but absent from the Estonian EEZ so a limited amount of fishing is undertaken by gill netters in the Main Basin (SD 25) to the east. Brackish water fishes like perch, pike-perch, flounder, eel, sea trout and salmon being targeted by passive fishing gear is mainly used in coastal fisheries (ICES, 2005; FAO, 2005a). The Table below shows the reported quantities of the main species of fish in metric tonnes landed by the Estonian fleet.

Main speci	es 1995	1996	1997	1998	1999
Cod	1,049	1,388	1,420	1,196	1,062
Herring	30,700	35,700	42,600	34,000	35,400
Sprat Main speci	13,100	21,100	38,900	32,300	33,200
	es 2000	2001	2002	2003	2004

* preliminary Source: ICES, 2005

Estonia has a distant-water fishing fleet which consists of 11 factory trawlers – a shadow of its former self. Shrimp from the NAFO and NEAFC regulatory areas is the main target species. The main export destinations for the shrimp pro-

duction are Iceland, Norway, Japan and Canada (FAO, 2005a).

Most of Estonian fishers are members of the Estonian Fishermen's Association, with its head-quarters in Tallinn. The Estonian Fishermen's Association comprises 6 sections: distant-water fishery; Baltic cod fishery; open Baltic trawl fishery; coastal Baltic trawl fishery; Baltic coastal fishery; and the inland water fishery (Lakes Peipsi and Võrtsjärv). Estonian fishers are planning to establish a Producer Organisation under EU regulations (FAO, 2005).

The processing sector

The fish processing industry holds a strong position in Estonia's food industry, providing 40% of the food industry's total export volume. The main products exported were fresh, frozen and canned fish products as well as preparations. The volume of exports was 163,000 tonnes in 2001, whereas imports amounted to 65,000 tonnes. The Estonian processing industry includes producers of canned fish and frozen fish (mainly targeting Eastern markets) as well as fast-food, fillet and delicacy producers who sell the majority of their production on Western markets. The approximately 80 processing companies in Estonia employ 4,500 people (EU Commission, 2004).

RUSSIA

Information regarding the Russian fishing industry is limited. The overall contribution of the entire Russian fishing industry to GDP is 0.71%. The main Russian ports in the Baltic are Kaliningrad (home to approximately 300 fishing vessels) and St Petersburg (FAO, 2004).

Baltic herring, sprat and cod are targeted. A small number of large vessels (> 15m and engine power > 1,000 Hp) target sprat for human consumption and animal feed in the 1st and 4th quarters and 2nd and 3rd quarters, respectively (ICES, 2005).

Up to 26 vessels operate within the coastal region targeting herring in the 4th and 1st quarters (ICES, 2005).

Data suggests that within the demersal trawling fleet an average of 6 ships (up to 27m and 300 Hp) per fishing day, fish for cod within a year. A

gillnet fleet fish for cod with anywhere from 9 to 24 vessels per available day (ICES, 2005).

The processing sector

The fishing industry is strongly export-oriented. The major commodities are various kinds of frozen fish products with limited added value. Russia imports fish from Norway, Iceland, the UK and the Baltic countries, in particular (FAO, 2004).

LATVIA

Latvia's overall fishery production is 1.5% of GDP. However, the fisheries sector plays a significant role in the national economy, especially in coastal regions where employment opportunities are limited. It employs around 13,900 people, or 1.2% of the active population. The foreign trade balance in fish production has been positive since the early nineties with exports of fisheries products representing 3.7% of total export volume (EU Commission, 2004a; FAO, 2005b).

In 2005, Latvia had a fleet of 951 vessels totalling 42,670 GRT. The fleet can be divided into three broad divisions: high seas; Baltic Sea/Gulf of Riga; and coastal vessels (ICES, 2005; Latvia National Board of Fisheries, 2005; FAO, 2005b). The table below provides a breakdown by number of these divisions.

No. high seas	No. Baltic Sea	No. of coastal
vessels >24 m	vessels > 12 m <24 m	vessels < 12 m
9	197	742

Source: FAO, 2005b

The nine high seas vessels fish in NAFO and NEAFC regulated areas targeting redfish, Greenland halibut and shrimp. Some of these vessels also use fishing opportunities provided within the EU and Mauritanian agreement, targeting pelagic species such as horse mackerel, sardine and mackerel (FAO, 2005b).

The Baltic Sea and the Gulf of Riga are considered to be the main fishing grounds (Latvia National Board of Fisheries, 2005) where Baltic herring, sprat and cod are targeted. About 85% of the total Latvian herring catches are taken by mid-water and demersal trawls and 15% by trap-nets. Demersal trawls, set nets and, occasionally, long-lines are used for cod (ICES, 2005).

The coastal fleet target Baltic herring, salmon, trout, vimba, flounder, eel and pike perch, and also sprat and cod in smaller quantities (ICES, 2005)

The table below provides an indication of the total reported landings in 2003 for the Latvian fleets.

Total landings 2003 (tonnes)				
High seas fleet Baltic Sea fleet Coastal fleet				
42,376	71,566	3,500		

The table below shows the reported quantities of the main species of fish in metric tonnes landed by the Latvian fleet.

Main species	1995	1996	1997	1998	1999
Cod	6,643	8,741	6,187	7,778	6,914
Herring	9,300	11,600	10,100	10,000	8,300
Sprat	24,400	34,200	49,300	44,900	42,800
Main species	2000	2001	2002	2003	2004
Main species	2000 6,280	2001 6,298	2002 4,867	2003 4,634	2004 5,027*

*Preliminary Source: ICES, 2005

The processing sector

The fish processing sector is almost entirely sustained by the nations fleets. There are more than 100 fish processing enterprises in Latvia, most of whom are located on the Baltic Sea and Gulf of Riga coasts, close to the fishing ports in the districts of Riga, Tukums, Talsi, Liepaja and Limbazi (FAO, 2005b).

Baltic herring and sprat are the main raw material. Mackerel and Atlantic herring and their fillets are also being used for processing. Canned products have decreased more recently, being replaced by chilled and frozen fish products. This means that export volumes have a greater proportion of low-added-value products, and a considerable part of locally available fish resources is being exported (FAO, 2005b).

LITHUANIA

Klaipeida is Lithuania's main seaport. The contribution made by fisheries to GDP is estimated to be 0.08%, but is more important in coastal areas (FAO, 2005b). In the past few years, the average

yearly yield has been 10,000–15,000 tonnes of various species, 2–3 % of which is caught in the coastal areas. The main species are cod, herring, sprat and flounder. Some foreign vessels, mostly Russian, land their catches in Klaipëda (FAO, 2005b).

As many as 2,500 fishermen are reported to be employed (FAO, 2005c), which appears to be a disproportionate amount as official figures indicate only 24 distant water vessels and 292 registered vessels fishing in the Baltic Sea and coastal regions (FAO, 2005b; Eurofish, 2005; Lithuanian Ministry of Agriculture, 2005).

No. high seas	No. Baltic Sea	No. of coastal
vessels > 24 m	> 12 m < 24m	vessels < 12 m
24	64	201

Source: Lithuanian Ministry of Agriculture, 2005

Pelagic trawling for sprat and herring and demersal and pelagic trawling for cod is used along with some gill netting and very occasionally drift nets and long-lines (FAO, 2005b; ICES, 2005).

The Latvian Baltic cod fleet only fish in SD 25-32 (Eastern cod stock). Outside of the closed season cod is fished all year round and, in some years, as much as one third of the total landings have been made in Denmark and Sweden. Herring and sprat are caught all year round, however, there is a marked decrease in effort in the summer. Sprat and herring catches are used for human consumption. Due to the lower abundance of cod in recent years catches of flounder have increased (FAO, 2005c; Lithuanian Ministry of Agriculture, 2005).

The table below shows the reported quantities of the main species of fish in metric tonnes landed by the Lithuanian fleet.

Main species	1995	1996	1997	1998	1999
Cod	4,513	5,524	4,601	4,176	4,371
Herring	3,600	4,200	3,300	2,400	1,300
Sprat Main species	2,900	10,200	4,800	4,500	2,300
	2000	2001	2002	2003	2004
Cod	5,165	3,317	3,317	2,767	2,041*

*preliminary Source: ICES, 2005

The processing sector

At the beginning of 2005 there were 38 registered fish processing enterprises in Lithuania, as compared to 62 at the end of 2003. The decrease is a result of more stringent requirements, due to Lithuania's EU membership as well as increased competition, shortage of raw materials and adverse settlement terms with trade outlets. Approximately 3,700 people are employed in the sector (Lithuanian Ministry of Agriculture, 2005).

Most fish processing enterprises import raw materials and export the bulk of their production. In addition to the traditional salted, smoked, pickled and canned fish products the industry has started to target higher value products (Lithuanian Ministry of Agriculture, 2005).

POLAND

While the contribution of fisheries to the Polish economy is limited to approximately 0.03–0.07%, Baltic Sea fisheries make a very significant contribution in both economic and social terms. In the east, the fishing tradition has resulted in a distinct social group within the Kaszuby region (FAO, 2001; EU Commission, 2004; Polish Economic Affairs & Labour, 2005).

Exports of fisheries products represent approximately 2% of the value of Polish food exports. Approximately 4,200 fishermen are employed in Baltic Sea fisheries with a further 14,000 employed in the processing sector (Polish Ministry of Agriculture and Rural Development 2003; EU Commission, 2004).

The fleet sectors are divided into size categories. The table below represents the numbers of registered vessels within each size category in 2001.

Fishing vessel size category	Number of vessels
<10 m	846
10-12 m	100
12-15 m	46
15-30m (cutters)	413
30m+ (high seas factory trawlers)	3

Source: Polish Ministry of Agriculture and Rural Development 2003; EU Commission, 2004; OECD, 2001

The average age of the fleet is old, 30 years, although some have been modernised and upgraded. In order to adjust Baltic fishing fleet potenti-

al to fish resources and to improve the economic performance of Baltic fishery, Poland plans to reduce by decommissioning the fleet capacity by at least 30 % (FAO, 2001).

The Polish Baltic fleets operate mainly in the Polish EEZ targeting cod, Baltic herring, sprat and flounder. In general, the smaller size cutters trawl and gillnet for cod and flounder, while the larger cutters use pelagic trawls for Baltic herring and sprat (ICES, 2005).

The table below shows the reported quantities of the main species of fish in metric tonnes landed by the Polish fleet.

Main specie	s 1995	1996	1997	1998	1999
Cod Herring Sprat	25,000 38,700 44,200	34,855 30,700 72,400	31,659 26,200 99,900	25,778 19,300 55,100	26,580 18,100 66,300
Main anasia	2000	2004	2002	2002	2004
Main specie	s 2000	2001	2002	2003	2004

*preliminary Source: ICES, 2005

The processing sector

At present the Polish fish processing industry is not self-sufficient as far as the supply of the raw material is concerned. In 2001, after years of growth, the value of the fish processing industry's sold production diminished for the first time. At the end of 2003, 340 fish processing establishments were operational.

Total production of the sector amounted to 273,000 tonnes, the main products being canned fish and fresh and frozen fish fillets. It is estimated that around 70 percent of raw material processed by Polish enterprises comes from abroad. Canneries and smoking plants are based on domestic raw material (sprat and herring) as well as on imported (mainly herring, mackerel and salmon) (FAO, 2001; EU Commission, 2004; Polish Economic Affairs & Labour, 2005).

GERMANY

The contribution of fisheries to the GDP is low at approximately 0.13%. As with many Member States, the German fishing industry has seen

some significant changes in the last 20 years with a decline in their distant, middle distant and coastal fleets. The size of the fleet more than doubled after reunification but since then the size of the fleets had decreased by 40% in the late 1990s compared to the 1980s (OECD, 2003; FAO, 1999).

In 2003 there were estimated to be in the region of 2,200 registered vessels and approximately 4,000 fishermen (OECD, 2003).

Cod has been the most important species for the German Baltic fleet but in more recent years, with declining cod stocks and available quota, the sprat and herring fisheries have shown significant increases in reported landings. Each fleet segment is broken down into similar size categories and further divided by the main method of fishing. The table below shows the number and main method used by vessels that fished for herring in 2004.

Year	Type of gear	Vessel length	No. vessels	GRT	kW
2004		<12 (coastal fleet)	380	1,905	15,330
	Fixed (gill & trapnet)	>12 (cutter fleet)	10	733	3,835
	trawl fleet)	<12 (coastal	8	415	3,250
		>12 (cutter fleet)	47	8,851	27,910
TOTAL			445	11,904	50,325

Source: ICES,2005

The table below shows the number and main method used by vessels that fished for sprat in 2004.

Year	Type of gear	Vessel length m	No. vessels	GRT	kW
2004	trawl	<12	1	24	220
2004	trawl	>12	26	2,750	7,682
TOTAL			27	2,774	7,902

Source: ICES, 2005

The table below shows the number and main method used by vessels that fished for cod in 2004. The German cod fishery is focused in SD 22 and 24 in the 1st and 4th quarter of the year and in SD 25 in the 2nd quarter.

In 2002 and 2003, the landings taken by gillnets amounted to 30 % and 40 %, respectively

Year	Type of gear	Vessel length	No. vessels	GRT	kW
2004	Gill nets	<12 (coastal fleet)	447	1,750	15,210
		>12 (cutter fleet)	15	916	4,680
	trawl	<12 (coastal fleet)	29	895	7,190
		>12 (cutter fleet)	82	6,959	22,110
TOTAL			573	10,520	49,290

Source: ICES, 2005

The table below shows the reported quantities of the main species of fish in metric tonnes landed by the German fleets.

Main species	1995	1996	1997	1998	1999
Cod Herring Sprat	14,692 0 200	19,358 0 200	14,484 0 400	12,492 0 4,600	15,439 0 200
Main species	2000	2001	2002	2003	2004

The processing sector

Despite the small size of the German fishing fleet, there is a relatively important fish processing industry. The reduction of the distant-water fleet forced the processors to turn to other (foreign) sources. In 1999 landings by German fisheries contributed 17 per cent to total supplies to the German market whilst, in contrast, imports from the EU and third countries accounted for 83 per cent (FAO, 1999; EuroFish, 2000).

With the accession of the new Member States some German companies have, or, are looking to move their processing operations to these countries owing to lower wage costs (DW World, 2004).

Annex II

Members of the Administrative Board of the Community Fisheries Control Agency¹

CHAIRMAN: Mr. Marcelo Vasconcelos, Deputy chairman: Mr. Hermann Pott

Representative	Deputy representative	Member States
Dr Johnny Demaiter	Dr Jean-François Verheggen	BE
Mr Jiri Pondelicek	Mr Vladimir Gall	CZ
Mrs Birgit Bolgann	Mr Mik Jensen	DK
Herrn Hermann Pott	Herrn Bernd Kremer	DE
Mr Tarvo Roose	Mr Heiki Nurmsalu	EE
Mr Nikolaos Papakonstantinou	Mr Konstantino Vourlias	EL
Sr D. Fernando Curcio Ruigómez	Sr D. José Navarro Garcia	ES
M. Pascal Savouret	M. Nicolas Mariel	FR
Mr Andrew Kinneen		IE
Dr Pasquale Giannella	Dr Elisabetta Giannoccari	IT
Mr Loizos Loizides	Mrs Mirto Ioannou	CY
Mr Guntis Drunka	Mr Kupcans Vladislavs	LV
Mr Genadijus Babcionis	Mr Arünas Jonaitis	LT
Mr Frank Schmit	Mr Pierre Treinen	LU
Mr Károly Pinter	Mr Tibor Györbiró	HU
Dr Anthony Gruppetta	Mr John Brincat	MT
Dr G. de Peuter	Dhr ir. L.R.M. Lomans	NL
Herrn Friedrich Huemer	DiplIng Andrä Rupprechter	AT
Mr Jaroslaw Koscielny	Mr Stanislaw Kasperek	PL
Mr Eurico Monteiro	Mr Alberto Brás	PT
Mr Robert Smoje	Mr Matjaz Kocar	SI
Mrs Helena Lettrichová	Dr Ján Regenda	SK
Mr Marku Aro	Mr Jarmo Raine Vilhunen	FI
Mr Daniel Samuelson	Mrs Marie Ingerup	SE
Mr Nigel Gooding	Mr Cephas A. Ralph	UK
Mr Anton Dotchev	Mrs Eliza Emilova Angelova	BG
Mr Gheorghe Stefan		RO
Mr Willem Brugge	Mr Martin Newman	European Commission
Ms Valérie Lainé	Ms Fuensenta Candela Castillo	European Commission
Mr Alain Laurec	Mr Fergal Nolan	European Commission
Mr Ernesto Penas Lado	Mr Jean-Claude Cueff	European Commission
Mr Raoul Prado	Mr François Dom	European Commission
Mr Marcelo Vasconcelos	Mr Giorgio Gallizioli	European Commission

 $^{^1\,}http:\!/\!europa.eu.int\!/comm/fisheries\!/agency/board_en.htm$

Annex III

Format for Serious Infringement reporting

Member State:

Year:

	Cases discovered		Type of proceeding	ngs initiated		Decisio	n ruling			Description	on of the p	enalty	
Case	Type of offence and details	Date	Administrative	Criminal	Appeal	First instance	Other instance	Fine	licence/fis	rawal of hing permit/ thorisation	Seizure (Please	Other (Please	If suspended:
No	(date, zone/port, flag/nationality)		Yes/No	Yes/No	Yes/No	Date	Date	(Euro)	Temporary Duration in days	Permanent	specify)	specify)	months

Code for notifying the types of behaviour which seriously infringe the rules of the common fisheries policy

- A1 Obstructing the work of fisheries inspectors;
- A2 Falsifying, concealing, destroying or tampering with evidence;
- B1 Obstructing the work of observers;
- C1 Fishing without holding a fishing licence, a fishing permit or any other authorisation required for fishing;
- C2 Fishing under cover of a falsified document;
- C3 Falsifying, deleting or concealing the identification marks of the fishing vessel;
- D1 Using or keeping on board prohibited fishing gear;
- D2 Using prohibited fishing methods;
- D3 Not lashing or stowing prohibited fishing gear;
- D4 Directed fishing for, or keeping on board of, a species subject to a fishing prohibition;
- D5 Unauthorised fishing;
- D6 Failure to comply with the rules on minimum sizes;
- D7 Failure to comply with the rules and procedures relating to transhipments;
- E1 Falsifying or failing to record data in logbooks, etc;
- 2 Tampering with the satellite-based vessel monitoring system;
- E3 Deliberate failure to comply with the Community rules on remote transmission of movements of fishing vessels;
- E4 Failure of the master of the fishing vessel of a third country to comply with the applicable control rules when operating in Community waters;
- F1 Landing of fishery products not complying with the Community rules on control and enforcement;
- F2 Storing, processing, placing on sale and transporting fishery products not meeting the marketing standards in force;

Annex IV

Summary of the European Commission's Tri-annual Evaluation Report 2000-2002

DENMARK 2, 3, 4, 5

Fisheries Management Institutes

The Ministry for Food Agriculture and Fisheries (*Ministeriet for Fødevarer*, *Landbrug og Fiskeri*) is the central authority responsible for coordinating and developing fisheries policy. The Fisheries Directorate (*Fiskeridirektoratet*) is the Ministerial department that is designated the 'lead' organisation for general matters of control, management of the fleet register, licensing, management of quota and catch registration.

The Fisheries Directorate consists of a central unit divided into three divisions (Administration, IT, Fisheries) and three regional inspectorates:

- North, with offices in Nykøbing Mors and Frederikshavn;
- South, with offices in Fredericia, Randers, and Esbjerg; and,
- East, with offices in Roskilde and Nexø.

Resources

The Fisheries Directorate employ approximately 300 people. Of these, approximately 175 were designated inspectors, who are based in the Copenhagen HQ, the Regional offices and aboard four Fisheries Patrol Vessels (FPVs). Each of the Regional Inspectorate offices has at least one small patrol boat available to undertake controls in inshore and inland waters. The Fisheries Directorate has no aerial surveillance capability but does use the UK and Swedish aerial surveillance patrols in the 'cod recovery areas' of the North Sea and Baltic Sea that fall within the Danish EEZ.

Monitoring, control and enforcement: VMS

A Fisheries Monitoring Centre (FMC) is situated within the Fisheries Directorate in Copenhagen and receives and forwards all satellite information connected with the activities of Danish and foreign vessels. VMS data is routinely crosschecked against information entered in the EC logbooks and is accessible onboard certain FPVs. Remote access by DG Fish to the computer files containing the data recorded by the FMC is also provided.

Licensing

There are various types of licence categories which state the conditions for participation in specific fisheries in certain areas and for set time periods.

Catch recording

The information from EC logbooks and landing declarations is electronically entered into the system in the local offices. Sales-note data is mainly sent electronically directly from the auction/buyers and entered into the system automatically. The Fisheries Directorate then runs a daily validation which automatically compares the EC logbook information with sales-note details. Any discrepancies are highlighted and subsequently checked in the port offices. A paper check is carried out once a month in the Regional offices to ensure that the vessels are complying with quota regulations and to calculate 'days at sea'.

VMS, licensing, catch registration data and vessel registration details are held on a central mainframe and the regional offices have access to this system.

² Danish Directorate of Fisheries website: http://www.fd.dk/info/sjle3/presentation_uk.pdf

³ Commission staff working documents, Annex to the report from the Commission on the monitoring of the Member States implementation of the CFP. COM(2004)849

⁴ Information provided from individuals during the course of the project

⁵ Sustainable Baltic Sea Fisheries – the way forward, Coalition Clean Baltic, 2004 http://www.ccb.se/pdf/050217_ccb_report_fisheries.pdf

Inspections

At sea the Danish FPV's focus their efforts where fishing activity is expected to be concentrated and/ or where experience suggests a strong possibility of non-compliance. Enforcement of regulations that apply to cod in the Baltic are given a high priority. Between 2000 and 2002 the FPVs spent 3,550 days at sea and inspected 2,771 vessels.

Fisheries inspectors have authority to: board and inspect fishing vessels; access all premises where fisheries related business is undertaken; and, with the support of the police, stop and inspect any vehicle used to transport fish. They are able to take samples of fish and demand to see and seize, where appropriate, documentation for investigative and control purposes.

There are approximately 340 landing ports in Denmark and 14 auction centres. National measures require that cod landed into Denmark from the North Sea and Skagerrak have to be sold through the auction. All buyers and sellers of first sale fish have to be authorised. The Fisheries Directorate has the power to undertake administrative controls on the records of buyers and processors. However, if there is a suspicion of an offence the police have to be included in the investigation.

Fisheries inspectors are also responsible for monitoring compliance with Community marketing regulations, including the controls of fish and fish products landed by fishing vessels, factory ships and freighters registered in a Third country. They also verify and deal with payments concerning intervention aid.

The Fisheries Directorate sets annual targets for controls in the ports which are on average 10% of all landings for human consumption and 1 monitor per 1,000 tonnes for industrial catches.

Dealing with infringements

The regional offices of the Fisheries Directorate undertake investigations and compile evidence against potential offenders. Within the industrial fisheries, administrative sanctions may be applied for offences associated with minimum percentage of target species, bycatch rules and closed areas. Suspension of fishing licences for set periods can be used. Administrative sanction for other catching sectors appears to be limited to relatively minor offences, such as logbook infringements. In the case of a more serious offence, evidence will be submitted to the police for further action and referral to the public prosecutor (anklage-myndigheden).

In addition to being the investigating authority, the head of the local police authority is also the public prosecutor. In this capacity, he/she may compound the infraction, i.e. offer an option of a fine rather than taking the matter before a court. If this route is chosen, the offence has the same legal effects as a judgement and it will be registered. Compounding seems to be fairly common, and it is favoured by the police as it means quick justice.

There are no fine levels fixed in the legislation, and the setting of the fine is the exclusive competence of the court/public prosecutor. The Fisheries Directorate has issued guidelines for dealing with fisheries offences with suggested levels of fines. However, standardised methods for calculating the fines have evolved through case law.

Additional comments

In its assessment of the Danish control and enforcement system for the period 2000–2002 and published in 2004, the Commission highlighted its concern regarding the system of electronic and manual verification of control documentation, i.e. logbooks and sales notes. They were of the view that there was a possibility that widespread misreporting of catches had ocurred in collusion with the buyers. EC inspectors had observed this in landings of cod in Bornholm and for herring and mackerel in the ports of northern Jutland.

FINLAND^{6, 7, 8}

Fisheries Management Instituitions

The Ministry of Agriculture and Forestry (*maa-ja metsätousministeriö*) has overall responsibility for the monitoring of fishing activities and the

⁶ Ministry of Agriculture and Forestry website: http://www.mmm.fi/english/

Ommission staff working documents, Annex to the report from the Commission on the monitoring of the Member States implementation of the CFP. COM(2004)849

⁸ Information provided from individuals during the course of the project

Department of Fisheries and Game (*kala- ja riis-taosasto*) undertakes the practical tasks of control through Regional Fisheries Units. There are six Regional Units on the mainland and the autonomous province of Åland Islands has its own fisheries monitoring and control administrations.

The Finnish Coast Guard (*merivatiosto*) undertakes multiple tasks, including surveillance of fishing activity at sea, and come under the responsibility of the Ministry of the Interior (*sisäasiainministriö*).

The Customs Authority (*Tullihallitus*) is responsible for controls and import of fish and fishery products into Finland and operates as part of the Ministry of Finance (*valtiovarainministeriö*).

The Finnish Game and Fisheries Research Institute (*Riiista- ja katalouden*) is responsible for the collation of fisheries statistics.

Resources

Approximately 20 fisheries inspectors work within the Regional Units and 5 people work on fisheries policy and administration in the Ministry's headquarters in Helsinki.

The Coast Guard has approximately 430 staff which contribute to the fisheries control work and a large number of vessels that can be used for offshore and inshore patrols. They also have a number of aircraft they can call upon to provide aerial surveillance within the EEZ.

Monitoring, Control and Enforcement: VMS

The national Fisheries Monitoring Centre is based in Helsinki and Regional Units have remote access to the VMS data.

Licensing

A national fishing vessel licensing scheme is in operation and a fleet register database is maintained for all vessels over 10 m.

Catch recording

The Regional Units collate and cross-check logsheets, landing declarations and sales notes before inputting the data onto a database which allows for monitoring of quota uptake.

Inspections

There are 12 designated ports for landing cod and an estimated 370 landing locations along the Finnish coastline, although many are ice bound during the year. In total, 17 vessels were issued special permits for cod in 2005. According the Ministry fishing for cod takes place outside the EEZ and no landings of cod were made into Finnish ports in 2005. Sweden and Denmark are where the majority of cod landings are made by the Finnish cod fleet.

Fisheries inspectors have the power to board vessels and enter premises involved in the trade of fish and are able to seize illegal gear, catches and documentation. If further investigation is needed, Fisheries Inspectors from the Regional Units are obliged to request assistance from the police and, if a potential offence has happened at sea, the Coast Guard.

Fisheries inspectors also ensure that buyers are registered and their details maintained on an approved list.

Dealing with infringements

Sanctioning of infringements is based on criminal procedure. Suspected infringement reports are forwarded to the police authorities for further investigation. Evidence is presented to the public prosecutor who decides on whether there is a case to be answered and, if so, the severity of the offence. If it is considered to be minor, sanctions in the form of a fine can be administered by the police; if more serious, the prosecutor will bring the case before a court of first instance.

Fines are calculated on the seriousness of the offence and an individual's daily income.

Additional comments

In the Commission's 2004 evaluation report of the Finnish implementation of the CFP which refers to the period 2000–2002, it highlights concern in the low number of inspectors and the effectiveness of Coast Guard inspections. Also, the many and diverse demands on police and local prosecutors are considered to result in excessive delays in getting cases to court and the potential deterrent effect is further reduced with the lowest average fines of all Member States.

SWEDEN^{9, 10, 11, 12}

Fisheries Management Institutes

The Ministry of Agriculture, Food and Consumer Affairs (*Jordbruksdepartementet*) has overall responsibility for fisheries policy and the development of national fisheries legislation and the National Board of Fisheries (*Fiskeriverket*) is responsible for the implementation and enforcement of both EC and national fisheries legislation, as well as, structural matters, licensing and vessel registration. The latter is based in Göteborg.

The Board is organised into four departments:

- (i) Resource Management which aims to ensure long-term sustainability in the use fish resources and to support the development of the fishing industry;
- (ii) Research and Development enhances knowledge of fish and fish stocks, fishing techniques and the impact of fishing on the environment;
- (iii) Fisheries Control responsible for satellite monitoring, quota management, development of systems for fisheries control, market regulations and management of fisheries statistics;
- (iv) Administration provides services to other departments and works with development of organisational efficiency.

Although the Fisheries Control Department (Avdelningen för fiskerikontroll) is the main body responsible for monitoring and control, the Swedish Coast Guard (Kustbevakningen) undertakes the practical aspects of sea and shore based inspections. The Coast Guard is an independent public sector authority responsible to the Ministry of Defence and, as such, has additional multiple tasks related to defence, security and emergency response. It is estimated that 25% of their time is spent on fisheries-related work.

There are also a number of other organisations with responsibilities associated with the Swedish fishing industry, they include: The Swedish

Customs Authority (*Tullverket*) which carries out control of imports and fish products from third countries; the National Food Administration Authority (*Statens livsmedelsverk*) which is responsible for fish hygiene regulations; and, the Swedish Bureau for Statistics (*Statistiska centralbyrån*) which is responsible for compiling statistics on behalf of the Fisheries Control Department.

Resources

The National Board of Fisheries has approximately 300 employees of which 30 work exclusively on fisheries control. The Coast Guard employ approximately 600 people, the majority of which (approximately 420) work aboard 27 vessels, with a further 25–30 working on aerial surveillance. All the vessels and hardware are available for fisheries monitoring and control purposes. All air and sea going personnel receive some formal training for fisheries control with a further 50, or so, receiving more specialised training.

Monitoring, control and enforcement: VMS

The Fisheries Monitoring Centre (FMC) is based in Göteberg and is linked to the Coast Guard's operational centre. An automatic system to crosscheck VMS with logbook data has been developed.

Licensing

The Swedish licensing system is based on three types of licences: personal fishing licence for each professional fisherman; vessel permits which are compulsory for vessels > 5 m used for commercial purposes; and, a special fishing permit for fishing in specific EU or third country waters.

Catch recording

Data from logsheets, landing declarations and sales notes are collated and entered onto a database and is linked to the satellite monitoring and vessel register databases. The fisheries database is used as a support in the administration of quota, licensing and compensation associated with withdrawals.

 $^{^9 \}quad \text{Swedish Board of Fisheries website: } \quad \text{http://www.fiskeriverket.se/pdf/om_fiskeriverket/engelsk.pdf}$

¹⁰ Commission staff working documents, Annex to the report from the Commission on the monitoring of the Member States implementation of the CFP. COM(2004)849

¹¹ Information provided from individuals during the course of the project

¹² Sustainable Baltic Sea Fisheries - the way forward, Coalition Clean Baltic, 2004 http://www.ccb.se/pdf/050217_ccb_report_fisheries.pdf

Inspections

The Fisheries Control Department and the Coast Guard uses a process of risk analysis to direct resources as well as control and enforcement effort. An inspection procedure has been developed which requires a minimum of checks to be undertaken according to vessel size and where the inspection takes place, i.e. at sea or on shore. Targets of 2% and 10% have been set for inspection of demersal and pelagic landings, respectively.

Fisheries inspectors have the authority to board and search vessels, premises dealing with fish and vehicles suspected of transporting fish. They are also empowered to seize information and documentation, including accounts (although the police need to be notified) and can retain a vessel or confiscate gear. If during inspection there is reasonable suspicion that an offence has been committed, the Fisheries Inspector has police authority to undertake further investigation.

Dealing with infringements

Preparatory criminal investigations and infringement reports are drafted by Fisheries Inspectors from the National Board of Fisheries or the Coast Guard and submitted to the public prosecutor. The public prosecutor then directs either the police, the Coast Guard, or the National Board of Fisheries to conduct supplementary investigations before submitting a final case. If there is adequate evidence, the public prosecutor can ask for the case to be presented in court of first instance. The setting of any subsequent fine is at the discretion of the court. Appeals can be made to the next instance, i.e. the Court of Appeal.

Additional comments

In the Commission's 2004 evaluation report of the Swedish implementation of the CFP which refers to the period 2000–2002, it highlights concern in the level of cooperation between the National Board of Fisheries and the Coast Guard. Their structure and relative independence from each other was thought to limit the ability of the National Board of Fisheries to establish guidelines with the Coast Guard regarding the direction, scope and content of fisheries control.

The number of sea and shore based inspections was considered to be low and there were some concerns as to the thoroughness of monitoring of pelagic landings.

There were also criticisms of the efficiency and effectiveness of the sanctioning procedure. There was comment that the judiciary did not perceive breeches in fisheries regulations to be very serious and the length of time between detection and a court hearing were highlighted as being unduly long. A combination of factors were put forward as contributing to this problem: the low priority given by the police and prosecutors; extended processing times by the Board; and poor evidence gathering and presentation.

The Commission recommended improved cooperation between the Board, the Coast Guard and the prosecution authorities, improvements in training on follow-up to infringements and witness training and the manner with which infringements are reported to the police.

No procedures or guidelines for monitoring and control of fish following first sale had been established and control was considered to be limited.

Overall the Commission's view was that further significant effort was required by the Swedish authorities to ensure full compliance by the Swedish authorities.

GERMANY^{13, 14, 15, 16}

Fisheries Management Institutes

The Federal Ministry of Agriculture, Food and Consumer Protection (*Bundesministerium für Ernährung*, *Landwirtschaft und Verbraucherschutz*) has overall responsibility for general legislative policy for fisheries, monitoring, control and licensing.

Federal Ministry of Agriculture, Food and Consumer Affairs website: http://www.ble.de/index.cfm/D8A924F16E11433096BA6DA376003DEA

¹⁴ Commission staff working documents, Annex to the report from the Commission on the monitoring of the Member States implementation of the CFP. COM(2004)849

¹⁵ Information provided from individuals during the course of the project

¹⁶ Sustainable Baltic Sea Fisheries - the way forward, Coalition Clean Baltic, 2004 http://www.ccb.se/pdf/050217_ccb_report_fisheries.pdf

Outside of the 12 mile limit, the Ministry is generally responsible for the surveillance, monitoring and control of fisheries. Within 12 miles, monitoring and control is the responsibility of the coastal states or Länder (Schleswig-Holstein, Niedersachsen/Bremen and Micklenburg-Vorpommern).

The Federal Customs Administration (*Zoll*) may also undertake fisheries inspections at sea or ashore while the Federal Border Guard (*Bundesgrenzschutz*) may undertake surveillance but do not undertake physical inspections.

Resources

The Ministry has approximately 20 inspectors who are involved in offshore inspections with a further 5 inspectors based in Hamburg. The Länder have approximately 30 inspectors who have a dual sea going and shore based role. While not dedicated fisheries inspectors, Customs Officers are also considered inspectors in the scope of their designated competencies.

A total of 42 patrol vessels are capable of inspections at sea. Of these, 3 are operated by the Ministry, 8 by the Border Guard, 12 by Customs and 19 by the Länder within the 12 nautcial mile limit.

In total, 30% of the Customs' vessel time is spent on fisheries control. They are trained by the Ministry inspectors and are able to make inspections and conduct investigations. Border Guards can be used to monitor protected areas such as spawning areas and they report any apparent offences to the Ministry for follow-up action.

Monitoring, control and enforcement: VMS

Data is centralised in the Fisheries Monitoring Centre in Hamburg and the large Ministry inspection vessels have access and can use this data while at sea. Data is exchanged automatically with Denmark, Finland and Sweden and the Commission can access recorded data on-line.

Licensing

All registered vessels are required to be licensed. There are two types of licence and a special permit for cod. The licences allow fishing for quota and non-quota species, respectively.

Catch recording

The collection of logbooks, landing declarations and sales notes is mainly carried out by the Länder fisheries inspectors. Landings into ports within Mecklenburg-Vorpommern are crosschecked and processed by the Länder authorities, whereas landings into other Länder are crosschecked and then sent to the Ministry offices in Hamburg for data processing.

Producer Organisations (POs) have some responsibilities for catch restrictions and they are expected to use internal management measures to discipline any over-shooting of quotas. POs may be fined or have the equivalent over quota fish removed from their allocation the following year.

Inspections

Inspections are normally documented in an inspection report, a copy of which is provided to the skipper of the vessel or owner of any premises that may be inspected. The control of landings is the responsibility of the Länder.

Ministry and Länder Fisheries Inspectors and Custom Officers, when acting as Fisheries Inspectors, are entitled to seize and search vessels and premises in the normal course of their duties. They also have powers to search vehicles when they are stationary while only the police have the authority to stop a vehicle in transit.

Dealing with infringements

An administrative sanctioning system is applied in Germany. Inspection reports that establish that an infringement has taken place are forwarded to either the Ministry's or Länder's Headquarters for further investigation and a decision on whether to impose a sanction. It is only at the stage of appeal that the prosecution authorities are involved.

Maximum federal fines are €76,600 if the offence is considered to be intentional; if the offence is considered to be a result of negligence the maximum is half this value. The sanction is set according to the seriousness of the offence and the economic circumstances of the offender. However, the legislation states that the fine should exceed any economic benefit from the offence. If

this was to exceed the maximum, the maximum does not apply. Fines can also be accumulated for several offences.

The different Länder have their own legislation defining infringements. Maximum Länder fines range between €10,000 in Mecklenburg-Vorpommern and €25,500 in Schleswig-Holstein.

To avoid the potential for appeal, fines may be set at relatively low levels and so reduce their deterrent value.

Additional comments

The Commission's 2004 evaluation report of the

German implementation of the CFP, which refers to the period 2000–2002, highlights concerns that Federal authorities have limited influence on the level of staff and resources allocated by the individual Länder. It considers that this may be problematic, particularly given the large number of potential landing points along the Baltic coast.

The ability to respond to prior notification and hailing in outside of normal office hours was also highlighted as a flaw.

The inspection of and control before and after first sale of transported fish was considered to be minimal.

Annex V

European Regulations that apply to Baltic Sea cod

Theme/Policy area	Regulations	Description	
General principles of the Common Fisheries Policy.	Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy ¹⁷	The "Framework Regulation" of the new Common Fisheries Policy.	
	Council Regulation (EC) No 1447/1999 of 24 June 1999 establishing a list of types of behaviour which seriously infringe the rules of the Common Fisheries Policy ¹⁸	The annual "serious infringement report" which is intended meant to indicate how each Member Sates deals with specific offences.	
	Council Regulation (EC) No 52/2006 fixing for 2006 the fishing opportunities and associated conditions for certain fish stocks and groups of fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required (adopted in December 2005) ¹⁹	Quotas and conditions on fishing. Annually revised and renewed.	
Governance	2005/629/EC Council Decision of 26 August 2005 relating to the institution of a Scientific, Technical and Economic Committee for Fisheries (STECF) ²⁰	The constitution, function and role of STECF.	
	2004/585/EC: Council Decision of 19 July 2004 establishing Regional Advisory Councils (RACs) under the Common Fisheries Policy ²¹	The constitution, function and role of RACs.	
Fleet management	Council Regulation (EEC) No 2930/86 of 22 September 1986 defining characteristics for fishing vessels ²²	Describes characteristics of fishing vessels enabling some sort of distinction.	
	95/84/EC: Council Decision of 20 March 1995 concerning the implementation of the Annex to Council Regulation (EEC) No 2930/86 defining the characteristics of fishing vessels ²³	Describes the changes to re-measure fishing vessels ensuring common practices across the EU.	
	Council Regulation (EC) No 1438/2003 of 12 August 2003 laying down implementing rules on the Community Fleet Policy as defined in Chapter III of Council Regulation (EC) No 2371/2002 ²⁴	Describes the fleet management measures from 2002 onwards, ie. post Multi Annual Guidance Programmes (MAGP I-IV)	
Fleet register	Council Regulation (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register ²⁵	Establishes a register for all registered fishing vessels throughout the EU and used to monitor fleet capacity.	
Vessel Monitoring Systems	Council Regulation (EC) No 2244/2003 of 18 December 2003 laying down detailed provisions regarding satellite-based Vessel Monitoring Systems ²⁶	Confirms that vessels over 15m and fishing beyond baselines should be fitted with a satellite based VMS.	

¹⁷ http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_358/l_35820021231en00590080.pdf

¹⁸ http://europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_167/l_16719990702en00050006.pdf

¹⁹ http://europa.eu.int/eur-lex/lex/Lex/UriServ/site/en/oj/2006/l_016/l_01620060120en01840199.pdf

²¹ http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2004/l_256/l_25620040803en00170022.pdf

 $^{^{22}\} http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31986R2930:EN:HTML$

 $^{^{23}\} http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31995D0084:EN:HTML$

 $^{^{24}\} http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2006/l_016/l_01620060120en01840199.pdf$

²⁵ http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:32005D0629:EN:HTML

 $^{^{26}\} http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2004/l_256/l_25620040803en00170022.pdf$

Theme/ Policy area	Regulations	Description		
Inspection and control	Council Regulation (EEC) No 2847/93 of 12 October 1993 establishing a control system applicable to the common fisheries policy ²⁷	The "Control" regulation, requiring Member States to monitor and report on quota uptake, fishing effort and buyers and sellers of fish.		
	Council Regulation (EEC) No 3561/85 of 17 December 1985 concerning information about inspections of fishing activities carried out by national control authorities ²⁸	Copy not available to give description		
	Council Regulation (EC) No 1381/87 of 20 May 1987 establishing detailed rules concerning the marking and documentation of fishing vessels ²⁹	Describes how vessels Port Letter Number (PLN) should be displayed and how their information is documented.		
	Council Regulation (EEC) No 1382/87 of 20 May 1987 establishing detailed rules concerning the inspection of fishing vessels ³⁰	Copy not available to give description		
	Council Regulation (EC) No 356/2005 of 1 March 2005 laying down detailed rules for the marking and identification of passive fishing gear and beam trawls ³¹	Ensuring that certain types of fishing gears are marked with the vessel's PLN		
	Council Regulation (EC) No 2187/2005 of 21 December 2005 for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound ³²	Provides for technical measures in the Baltic Sea, the Belts and the Sound		
	Council Regulation (EC) No 1804/2005 of 3 November 2005 amending Regulation (EEC) No 2807/83 laying down detailed rules for recording of information on Member States' catches of fish ³³	Establishes detailed rules for recording information on fish catches and fishing effort.		
Structural Policy	Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds ³⁴	Sets out what Structural Funds will be used and the rules for their application.		
	Council Regulation (EC) No 1263/1999 of 21 June 1999 on the Financial Instrument for Fisheries Guidance (FIFG) ³⁵	Sets out what FIFG will be used for and the rules for their application and administration.		
	Council Regulation (EC) No 2792/1999 of 17 December 1999 laying down the detailed rules and arrangements regarding Community structural assistance in the fisheries sector ³⁶	Sets rules and administrative requirements for restructuring.		
	Council Regulation (EC) No 2370/2002 of 20 December 2002 establishing an emergency Community measure for scrapping fishing vessels ³⁷	An emergency Community measure to assist Member States to achieve additional reductions in fishing effort resulting from recovery plans adopted by the Council is hereby instituted for the period from 2003 to 2006.		
Markets	Council Regulation (EC) No 104/2000 of 17 December 1999 on the common organisation of the markets in fishery and aquaculture products ³⁸	Establishes market standards, comprising price and trading systems and common rules on competition		

²⁷ http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31986R2930:EN:HTML

 $^{^{28}\} http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31995D0084:EN:HTML$

²⁹ European Official Journal Legislation 339 18/12/1985 p.29

³⁰ European Official Journal Legislation 132 21.05.1987 p.9

³⁰ European Official Journal Legislation 132 21.05.1987 p.11

³² http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_056/l_05620050302en00080011.pdf

³³ http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_349/l_34920051231en00010023.pdf

 $^{^{34}\} http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_290/l_29020051104en00100011.pdf$

³⁵ http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/consleg/1999/R/01999R1260-20050222-en.pdf

³⁶ http://europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_161/l_16119990626en00540056.pdf

³⁷ http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/consleg/1999/R/01999R2792-20050402-en.pdf

³⁸ http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_358/l_35820021231en00570058.pdf

³⁹ http://europa.eu.int/eur-lex/pri/en/oj/dat/2000/l_017/l_01720000121en00220052.pdf

In 2005, the Fisheries Secretariat (FISH) commissioned **a study into illegal, unreported and unregulated (IUU) fishing in the Baltic Sea** to inform its existing and future work. In particular,
FISH was interested in how NGOs might be best able to contribute to improving compliance.

As a result of this study, a report was produced that was intended for internal use. However, with the heightened interest in IUU fishing associated with the Baltic Se cod fishery, FISH has decided to publish an amended version of the report. We hope that it will contribute to a better understanding of some of the issues associated with the illegal fishing problem in the Baltic Sea cod fishery.

The report is based on a review of the available literature on IUU fishing within the Baltic Sea region, informal meetings/ interviews with individuals with an active interest in the Baltic Sea cod fisheries, as well as a review and analysis of the EU fisheries policy and regulatory frameworks for control and enforcement that apply within the Baltic Sea.



The Fisheries Secretariat (FISH) is a non-profit organisation dedicated to work towards more sustainable fisheries at an international level, with a focus on the European Union. The Stockholm-based Secretariat was set up in 2003 by three evironmental NGOs: the Swedish Society for Nature Conservtion, WWF Sweden and the Swedish Angler's Association.