

EUROSAI WGEA. WG 11. Fraud and corruption-seminar on Monday 14 October 2013.

Description of case for group discussions:

Fisheries management scenario

Important note:

The sole purpose of this document is to provide a case for a hypothetical discussion among public sector auditors of key issues relating to fisheries management and fraud and corruption. Hence, although the organizations, policies, fisheries and other circumstances presented in this case to some extent are based on or inspired by real organizations, policies, fisheries and circumstances, the case should in its entirety be considered as fictitious. Consequently, much of the original facts and circumstances have also been changed to fit the 'story' of the case. As to the fraud and corruption risks/scenarios indicated/embedded in this case, these are mere hypothetical constructs and should therefore not be associated with real countries, organizations or persons whatsoever.

1. Introduction:

The country in focus in the scenario is the fictitious country of *Atlantica*, which is very dependent on fisheries - both for the national economy, and for employment and local settlement in many parts of the country. In the past, *Atlantica* was rich in marine living resources, but the fisheries are now in a major crisis.

Atlantica:



Source: Wikimedia Commons

2. Management framework:

A comprehensive management framework for the fisheries in *Atlantica* has been in place for several years, consisting of a wide spectrum of various measures:

2.1 Total Allowable Catches (TACs):

First, fisheries output is limited through the adoption of Total Allowable Catches (TACs), i.e. catch limits which are set for all the significant commercial fish stocks on an annual basis. The TACs are shared between and within the various vessel groups under a system referred to as 'relative stability'. This system keeps vessel quotas stable in relation to each other, irrespective of the size of the TAC. In other words, when the TACs are going up, the quotas and the income of each vessel/fishing company are also going up - and vice versa.

2.2 Technical measures:

Second, the fisheries are regulated through various technical measures which govern *how* and *where* fishers may fish. Technical measures include:

- minimum mesh sizes for nets
- closed areas and seasons
- limits on by-catches (catches of species which the vessel has no direct quota for)
- requirement to use more selective fishing gear (to reduce by-catch)
- measures to prevent damage to the marine environment

The technical measures may differ considerably from one fishing area to another, depending on local/regional conditions. In addition, discarding of fish is banned for all commercial species in Atlantica. That is, all fish caught are supposed to be brought ashore, so that the catches can be properly recorded. Depending on the species in question and their size, the catch are either deducted from vessel quotas or confiscated.

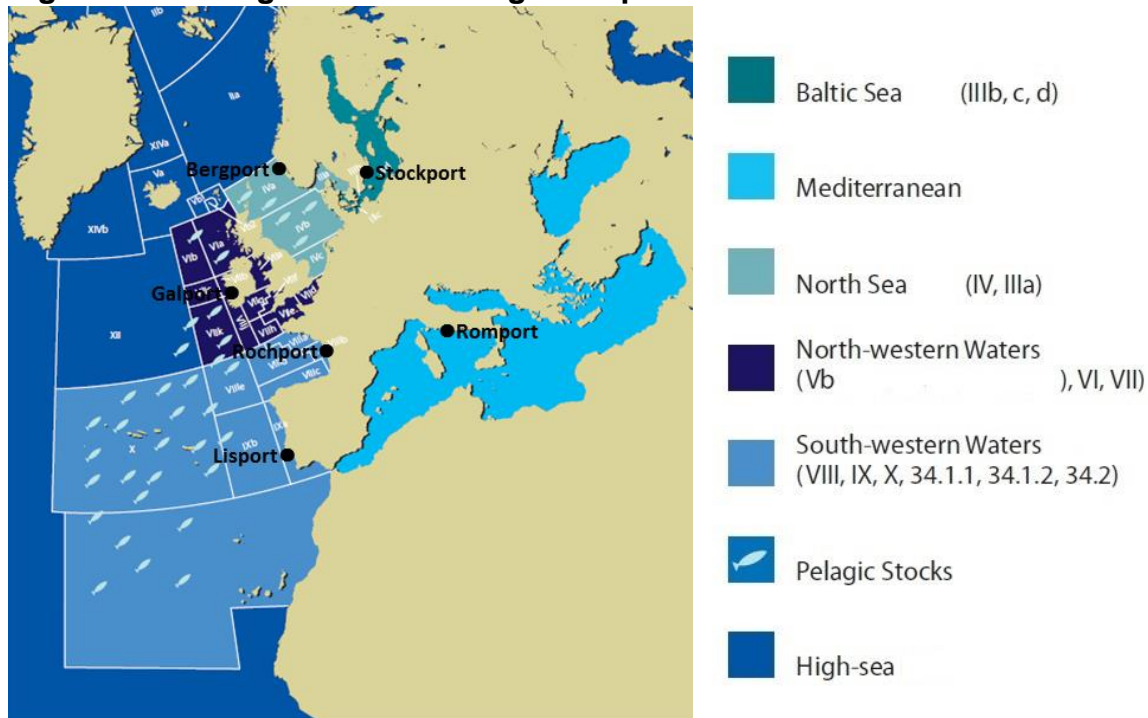
As most of these standards and requirements make fishing activities more costly and/or reduce the output of fishing effort, all fishing vessels and fishing companies have an economic incentive to avoid them as much as possible.

2.3 Control system:

Third, to ensure that the quotas are respected and that the technical measures are complied with in practice, Atlantica also has a comprehensive control system in place. When it comes to physical inspections, the main focus is on checks in ports where fish is landed or transshipped for transport to other countries.

To make it easier to control the fisheries, it is compulsory for all vessels to land all their catches in one of the six so-called 'designated ports' around the country. These are: 1. *Stockport*, close to the Baltic Sea; 2. *Bergport*, close to the North Sea; 3. *Galport*, close to the North-western Waters, 4. *Rochport*, close to sector VIII in the South-western Waters 5. *Lisport* close to sector IX and X in the South-western waters, and closest to the pelagic fisheries in the South-western and Southern Waters, and 6. *Romport*, close to the Mediterranean Sea. (See figure 1 below). Atlantica's regional fisheries authorities have also located their six offices in each of these ports. Fisheries monitoring and inspections at sea through aircrafts and patrol vessels are also carried out, but only to a very limited extent, as this type of control is very expensive.

Figure 1 - Fishing areas and designated ports in Atlantica¹:



In addition, Atlantica's fisheries control authorities also make extensive use of modern technologies to ensure that fishing fleets are monitored and controlled as efficiently and effectively as possible. The 'electronic control' consists of two main systems:

a) The *Electronic recording and reporting system (ERS)*, which is used to record, report, process, store and send fisheries data (catch, landing, sales and transhipment). The key element in the ERS is the electronic logbook where the captain of a fishing vessel keeps a record of fishing operations. The record is then sent to the national authorities, which are supposed to store the information in a secure data base.

b) The *Vessel monitoring system (VMS)*, which is a satellite-based monitoring system which at regular intervals provides data to the fisheries authorities on the location, course and speed of vessels. (See figure 2 below).

Both ERS and VMS are compulsory for all fishing vessels in Atlantica's fishing fleet. Together, the two systems generate data from each fishing vessel which can be very valuable for competing vessels in the same fishery, if they manage to get access to these data. Not least, this concerns data on where the most productive fishing grounds are located. This is considered a business secret.

2.4 Sanctions in case of infringements:

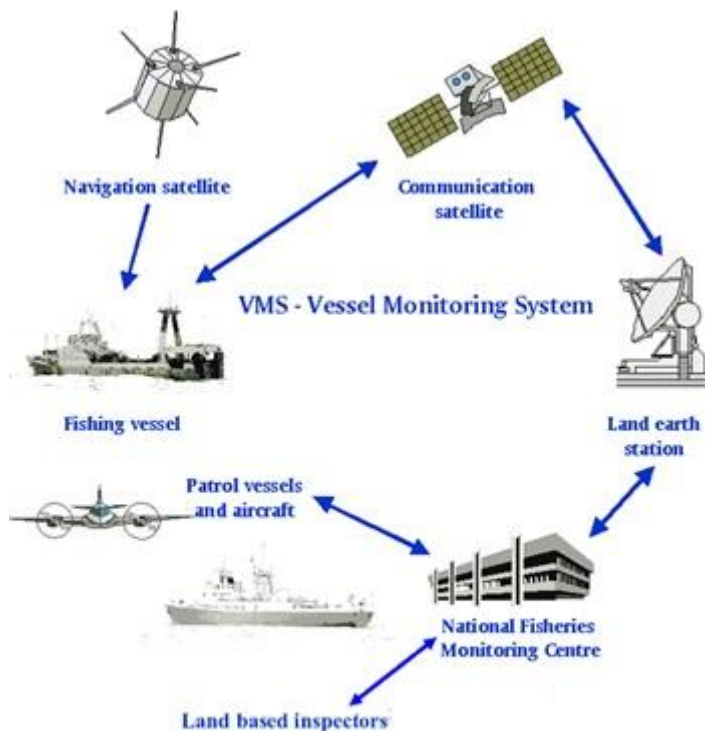
Fourth, to ensure that fishing rules are respected by all fishing companies and fishermen, Atlantica also has enacted legislation which is supposed to provide for effective, proportionate and dissuasive sanctions in case of infringements. Depending on the seriousness of the infringement, and whether it is occurring for the first time or not, the sanctions include a

¹ Based on a map from the European Commission:
http://ec.europa.eu/fisheries/documentation/publications/cfp_factsheets/fishing_areas_en.pdf

spectrum of different reactions, from written warnings to fines, confiscation of catch and/or equipment, withdrawal of licence, and, finally, prison sentence.

Naturally, as with the technical measures, the fishing companies also have an economic interest in avoiding such fines, confiscation of fishing gear, withdrawal of licences, etc. when breaching laws, regulations and permits, as such enforcement and sanctions also may entail large economic losses and other costs.

Figure 2 - Vessel Monitoring System (VMS) in Atlantica²:



2.5 Limitation of fishing effort:

Finally, limitation of fishing effort is also a very central element in Atlantica's fisheries management policy. More specifically, the authorities are trying to reduce the pressure on fish stocks by limiting the overall size and capacity of the fleet. As part of this, Atlantica implemented a so-called 'entry/exit scheme' for its fishing fleet some years ago. According to this scheme, capacity, measured in tonnage, is not allowed to rise above the level of 1 January 2005. To ensure this ceiling is respected, all Atlantica's fishing vessels are registered in the national fleet register, which is supposed to be updated every quarter.

Furthermore, in recognition of the fact that most fishing fleets in Atlantica still were much too big compared to the available fish resources on 1 January 2005 - recent studies show that many of Atlantica's fishing fleets can exert a fishing pressure which is two to three times the

² Based on a figure from the European Commission:
http://ec.europa.eu/fisheries/cfp/control/technologies/vms/index_en.htm

sustainable level - a large part of Atlanticas Fisheries Fund (see below) is allocated for decommissioning, i.e. scrapping of fishing vessels. The general principles for the use of the decommissioning funds are as follows:

- no public money can be used to build new capacity or to ‘modernise’ boats, in the sense of making them more efficient fishing machines;
- nor can public money be used to ‘export’ overcapacity to third countries;
- no new capacity can be introduced into the fleet using private money unless at least an equal amount of capacity is withdrawn, also using private money;
- and capacity withdrawn using public money (decommissioning programmes) cannot be replaced.

3. Biological and financial/structural crisis:

Still, despite this comprehensive management framework, the fisheries in Atlantica are now in a major crisis. Recent estimates indicate that three out of four demersal and pelagic stocks are overfished, and that the remaining stocks are fully utilized. There are several reasons for this. Among other things, the TACs have for many years been fixed far above the levels recommended by the scientists, and destructive fishing practices such as discarding of fish have also been allowed by the authorities until a few years ago. Furthermore, rising water temperature due to climate change also appears to have had a negative impact on most fish stocks in Atlantica's waters.

At the same time, there is still a huge overcapacity in Atlantica's fishing fleet, and many of the fishing companies/vessel owners have large capital costs and debt problems as they have financed the purchase of additional quotas and/or new vessels to a large extent through loans. Also, due to war and conflict in the largest oil-producing region in the world, the fuel prices have also been steadily increasing in later years. A final negative factor is the ongoing global financial crisis, which - among other things - has resulted in higher interest rates on loans, and decreasing demand for fish products, and, hence, reduced prices.

As a consequence, most of the fishing fleet in Atlantica has very poor profitability - if any. The biological and financial/structural crisis in Atlantica's fisheries is seen in close connection with so-called 'IUU' ('Illegal, Unregulated and Unreported') fishing, which appears to have been increasing in the same period as fish stocks - and TACs - have been decreasing. There have been several signs that 'something is wrong' in the sector:

- Official catch records have not corresponded with the estimates presented by the scientists, indicating that catches have been (far) above the legal quotas;
- According to market reports, there have been sudden decreases in the prices for certain species and/or fish products which cannot be explained by corresponding increases in the quotas and/or laxer regulations for these species, nor by the general decrease in the citizens' purchasing power;
- Fishing vessels have reported that they have found a lot of dead, small fish floating in the sea, which is a clear sign of so-called 'high-grading'. That is, although this is illegal, vessels have apparently only kept the biggest fish as these give the best prices in the market, and thrown overboard the smaller ones.

4. The response - Atlantica's Fisheries Fund (AFF):

Acknowledging that the fisheries are in a major crisis, and that this also have had a major negative impact on several local communities along the coast in respect of bankruptcies, massive job cuts and depopulation, Atlantica's government has established a large Fisheries Fund of 500 million USD to try to counter some of the most adverse effects. As already mentioned, a large part of this fund is allocated for scrapping of fishing vessels, but the largest part is allocated for supporting:

- The local processing industry, including their marketing of fish products;
- Investments in local infrastructure, i.e. ports, shelters and landing sites;
- Local development initiatives to reduce the dependency on fisheries, for instance support to development of tourism infrastructure and services.

All coastal communities where fisheries are an important industry are eligible for aid from the fund. However, the fund is first and foremost intended for those communities which are in a very difficult economic situation and where more than 50 percent of the workforce are or have been employed in the fisheries sector. This is the situation in Stockport, Bergport and Galport, which all are heavily affected by the crisis in the demersal fisheries, i.e. the cod, haddock and saithe fisheries in the Baltic Sea, North Sea and North-western Waters. (See below). The three other port cities - Rochport, Lisport and Romport - are in a much better state, as their local industry is much more diversified, and the fisheries sector only represent a minor share of the local economy and the local jobs. In particular Rochport is in a good state, as businesses generally are thriving and the local economy growing.

5. The fisheries administration:

The fisheries administration in Atlantica is organized at three different levels. At the top level is the Ministry of Fisheries, at the middle level is the National Fisheries Agency, and at the bottom level are the Regional Fisheries Offices.

5.1 The Ministry of Fisheries:

The Ministry is responsible for developing and implementing the general fisheries policies of Atlantica, for deciding on the various allocations of the national budget for the fisheries sector, and for drafting and implementing laws and regulations. Among other things, this includes deciding on the allocation of financial support for decommissioning between the different fleet groups, and allocation of financial support to industry, infrastructure, etc. between the different coastal communities. Furthermore, it also includes deciding on minimum fish sizes and mesh sizes in the technical regulations, and on delivery obligations for fishing vessels. Finally, in very special circumstances, the Ministry may also change the quota allocation key between and/or within the various vessel groups. In addition to fisheries, the Ministry is also responsible for general policy, budgetary and legal issues relating to aquaculture, seafood safety and fish health and welfare, infrastructure for harbours and sea transport, and emergency preparedness for pollution incidents.

Depending on the circumstances, all these decisions may have large economic consequences for the fishing vessels and companies concerned. Moreover, as changes in the budget, regulations, quotas, etc. also may - among other things - have large impacts on the share

prices of the fishing companies affected, information about these decisions *before* they are made public, may also be very valuable.

The final decisions on the budget and the fisheries regulations are taken by the Minister of Fisheries herself. The Minister is free to initiate and decide on whatever matter she wants within her area of responsibility, but many cases are initiated and prepared by the administration in the Ministry. All cases to/from the Minister go through the Secretary General, who therefore has substantial influence on the preparation/implementation of all decisions at the political level. At the department and section level, the heads - i.e. the Department Managers and Section Managers respectively - also have major influence on the preparation/implementation of matters with their respective areas of responsibility. In addition, all those employees who are directly involved in the various processes and decisions may have information regarding these processes/decisions which can be of very high economic value.

The organizational structure and the various departments and sections of the Ministry are further elaborated in Appendix A.

5.2 The National Fisheries Agency:

In general, the National Fisheries Agency functions as the advisory and executive body of the Ministry in matters relating to fisheries and aquaculture management. While the Ministry focuses on more general policy issues, including allocation of the budget and drafting and implementation of laws and regulations, the Agency normally deals with more technical matters and individual cases. Among other things, the Agency is responsible for the allocation of grants for the decommissioning of fishing vessels and for supporting fish processing factories. Furthermore, it is also responsible for the operation of the ERS/VMS-system, for the national quota-/catch-register, and for the national vessel register.

If a fishing company receiving support to decommissioning has no other active vessels which the quota(s) of the scrapped vessel can be transferred to, the Agency may also - depending on the state of the fish stock in question - reallocate these quotas to other fishing companies by drawing lots. To qualify for this lottery, the companies in question must have a valid fishing licence, and they also have to provide a bank guarantee that they can pay the same amount for the quota as the Agency has given in support for the decommissioning of the vessel in question.

Furthermore, the Agency also has the authority to issue new fishing licences - by drawing lots among qualified fishing companies - where (a) these licences have been permanently withdrawn from 'blacklisted' IUU-companies, where (b) fishing companies have gone out of business, or (c) where fish stocks are underutilized. However, as all stocks at present are either overfished or fully utilized, the latter option is supposed to be only a theoretical possibility in the current situation.

In addition to fisheries management, the Agency is also responsible for aquaculture and coastal zone management. As with the Ministry, depending on the circumstances, many of the activities carried out by the Agency may also have large economic consequences for the fishing vessels and companies concerned. Likewise, information about these activities or information from the registers operated by the Agency may also have a high economic value.

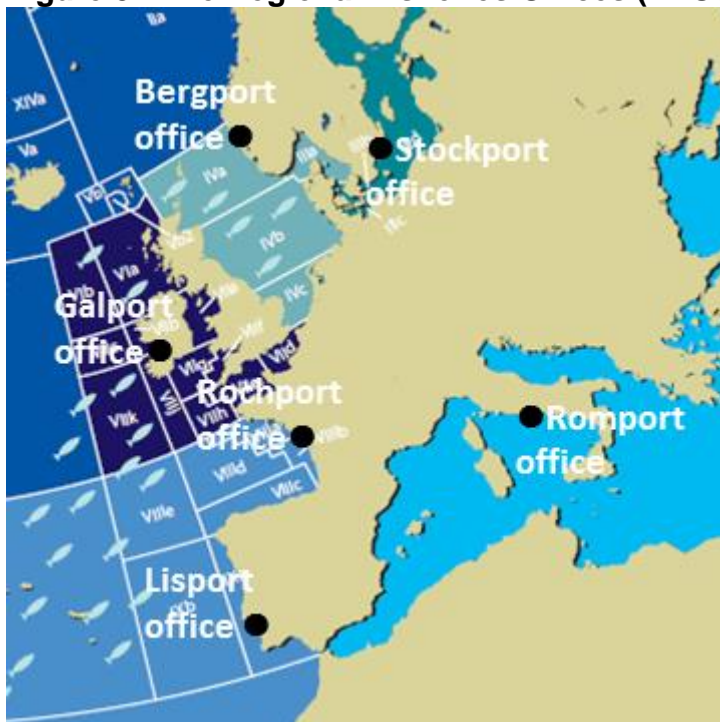
The Agency has the same organizational structure as the Ministry, with the exception that the head of the Agency - the Director - is not politically elected. Hence, below him, there are departments and sections - headed by Department Managers and Section Managers respectively - similar to the departments/sections in the Ministry, but with other responsibilities. As the Agency, as mentioned, deals with more technical matters and individual cases than the Ministry, many of its decisions are delegated by the Director to lower levels in the Agency. As with the Ministry, all those employees who are directly involved in the various activities and/or have access to relevant registers may be in the possession of very valuable information.

The organizational structure and the various departments and sections of the Agency are further elaborated in Appendix B.

5.3 The Regional Fisheries Offices:

Under the National Fisheries Agency are the six Regional Fisheries Offices (RFOs) which are located in the six 'designated ports' around the country, that is, Stockport, Bergport, Galport, Rochport, Lisport and Romport. (See figure 3). Among other things, the RFOs are responsible for fisheries control through physical inspections of vessels, equipment and landings. More specifically, they are supposed to check that vessels have their licence in order, that they have only authorized fishing equipment onboard, and that their catches are legal.

Figure 3 - The Regional Fisheries Offices (RFOs) in Atlantica³:



As to the catches, the inspectors are both supposed to check that these are within the quota of the vessel in question and that the fish are above the legal minimum size. The catches are also supposed to be reconciled with the catch reports sent through the ERS-system. The RFOs are also supposed to check that vessels which have received financial support for

³ Based on a map from the European Commission:
http://ec.europa.eu/fisheries/documentation/publications/cfp_factsheets/fishing_areas_en.pdf

decommissioning actually have been destructed. Finally, the inspectors are also responsible for collecting control fees from the vessels when they are landing their catches.

In case of infringements the inspectors and the RFO are supposed to - depending on the severity of the infringement in question - issue written warnings, impose fines, confiscate catch and/or equipment or withdraw fishing licences - for a limited period or permanently. Serious cases may also be referred to the police for criminal investigation. As mentioned, the fishing companies also have an economic interest in avoiding these sanctions as they may entail large economic losses and other costs.

In later years, the RFOs have become responsible for an increasing number of tasks in addition to fisheries control, as the aquaculture industry has grown considerably during the last ten years, and the fisheries authorities also have been assigned new responsibilities relating to coastal zone management and pollution control. Hence, an increasing part of their resources are now used for checking that the fish farms comply with the internal control requirements for aquaculture production, checking that environmental regulations are complied with in the coastal zone, as well as providing the necessary emergency preparedness at any time in case of sudden blooms of toxic algae, oil spills, etc.

As a result of this, a substantial part of the resources which previously were earmarked for fisheries control in the RFOs, now have been reallocated for other purposes. In addition, due to the general downsizing of the public sector following the financial crisis (see below), there have been further cutbacks in the number of fisheries inspectors. In some offices this has led to a high turnover and only new - and unexperienced - inspectors in the staff, while in others there are only a couple of the 'veterans' left. In one office, there has been only one inspector in operative duty for the last couple of years.

All RFOs are headed by the Regional Director, who is supposed to make the final decisions on the most important matters, such as serious infringements of fisheries regulations. However, under the current circumstances, more decisions are delegated to lower levels and the organizational structure of the RFOs are also more 'fluid' than normal.

6. Findings from previous audits:

The fisheries administration and the fisheries management in Atlantica has already been subject to a couple of performance audits conducted by the Auditor General's Office in the country. In general, the audits found that the internal control routines at all three levels of the fisheries administration seem to be insufficient. Among the more specific findings from these audits, the most important ones were:

- The standards, procedures and practices for fisheries inspection and control - including the accepted minimum level of physical inspection - seem to vary between the various RFOs;
- There seems to be a general lack of reconciliations and cross-checks, both between declared landings and actual landings through physical inspections of the catches and the weighings of these catches, between landings and catch declarations sent through the ERS/VMS-system, and between licences presented and the central vessel register;
- A substantial part of the control fees are paid in cash to the inspectors. It is unclear to what extent all receiptbooks are registered, whether cashbooks are maintained as they should, and whether bank reconciliations are carried out on a regular basis;

- Performance monitoring of fisheries inspections and controls seems to be almost totally absent;
- The systems and routines for collection and systematization of catch data at the RFOs do not seem to function properly. Hence, it is uncertain to what extent all catch data are forwarded to the National Fisheries Agency, and whether the aggregated data in the Agency - both for individual vessels and for the fleet as such - provide an accurate account of the actual catches. In general, data also seems to be forwarded very late to the Agency;
- Moreover, the national quota- and vessel-registers in the National Fisheries Agency do not seem to be updated at regular intervals. Combined with delayed and incomplete catch data this makes reconciliation of catches, quotas and vessels difficult. In addition, it also makes it more difficult to check whether a vessel which still is active already has received support for decommissioning.
- Similar to the control fees, it is unclear to what extent the (incoming) payments for quotas are accounted for as they should, to what extent these are balanced against the corresponding (outgoing) payments for decommissioning, and whether bank reconciliations are carried out on a regular basis;
- The data base in the National Fisheries Agency containing all data collected through the ERS/VMS-system and through the reports from the RFOs does not seem to be sufficiently secured against unauthorized access;
- The systems and routines for allocation of grants for decommissioning, support to fish factories, etc. appear to be rather general and insufficient. For instance, appropriate criteria seem to be lacking for selecting those fishing vessels which: a) Still are active; b) Still are catching substantial quantities of the species which are most in need of protection. Moreover, objective criteria for assessing the *value* of the vessels in question - and, consequently, the amount of support - also seem to be missing. Hence, the government officials in question seem to enjoy a rather high degree of discretion when dealing with grant applications from the companies;
- When it comes to decisions and actions with potentially large economic consequences for the companies concerned, there seems to be a general *lack of transparency and lack of documentation* at all three levels of the fisheries administration:
 - More specifically, at the Ministry-level, this seems to be a problem inter alia concerning decisions on minimum fish sizes and mesh sizes in the technical regulations, delivery obligations for fishing vessels, as well as decisions regarding the quota allocation key;
 - At the Agency-level, this seems to be a problem inter alia when it comes to allocation of grants for decommissioning and support to factories, reallocation of fishing quotas and allocation of new licences;
 - At the RFO-level, this seems to be a problem inter alia when it comes to documentation of whether cross-checks and physical inspections actually have been carried out and whether infringements have been the subject of appropriate follow-up. There is no centralized system for recording inspection reports in Atlantica, nor is there a central database which contains all sanctions imposed in the area of fisheries;

7. Management crisis:

The fisheries administration in Atlantica is also heavily affected by the ongoing global financial crisis. Among other things, this has led to job and wage cuts at all three levels of the fisheries administration, increasing workloads (as there are fewer people to carry out the same

tasks as before), higher employee turnover, more uncertainty concerning assignment of authority and responsibility within the various entities in the fisheries administration, more stress and frustration among the employees - and more conflicts. To a large extent, all these factors have further aggravated the management weaknesses already identified in previous audits, described above.

There is a history in Atlantica of corruption at various levels from the Ministers office to the local fisheries enforcement officers with significant amounts of money being diverted from actually benefiting the citizens of the country. However, it is unclear whether this is being addressed more properly and effectively by the authorities today. On the one hand, during the last years, the government has adopted several anti-corruption measures such as a general code of conduct for the public sector which inter alia includes conflicts of interest provisions, whistleblower protection legislation, as well as new administrative regulations requiring all public sector entities to carry out fraud and corruption risk assessments within their respective areas of responsibility on a regular basis. On the other hand, it is uncertain to what extent these measures also have been properly implemented within the various ministry areas, including the fisheries administration.




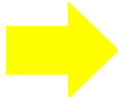




In addition to the more general signs of overfishing and high-grading, there have also been several signs that 'something is wrong' in the fisheries sector which can be related more directly to the fisheries administration:

- Fishermen, fishing companies, actors in the market and the media have reported that there are people in the fisheries administration who have economic interests in the industry;
- Auditors have received anonymous tips from internal whistleblowers within the fisheries administration about signs of illicit enrichment of government employees, e.g. very expensive houses, cars, watches, clothes, vacations, lavish lifestyle more generally, and that there seem to be inappropriate relationships between people in the fisheries administration and people/companies in the fishing industry;
- There have been allegations that the Ministry's allocation of the budget items relating to decommissioning or support to the fishing industry, as well as its amendments in the technical regulations and introduction of delivery obligations seem to favor a certain fleet group - and even certain companies;
- Fishing companies have reported that certain other companies seem to win the 'quota lottery' suspiciously often;
- Fishing companies and environmental organizations have reported that vessels which are 'blacklisted' for IUU-fishing and which are supposed to have their license permanently withdrawn appear to have received new fishing licences;
- Environmental organizations have also reported that fishing vessels which were supposed to be scrapped long time ago still seem to be carrying out fishing operations - both in Atlantica's waters and in other waters around the world;
- Fishing vessels and companies have reported that vessels from certain other companies always seem to suddenly appear when the former have located a productive fishing ground;
- VMS-data reveal suspicious landing patterns for vessels from certain companies, considering time, weather conditions, fuel economy and the location of the fishing areas;
- There have also been some allegations from vessels/companies that certain companies 'always' seem to be subject to laxer inspections and enforcement than others.

8. The most important commercial species in Atlantica:

The most important commercial species in Atlantica's waters are cod, haddock, saithe, monkfish, turbot, mackerel, sardine and tuna. The fisheries season starts in October and ends in September the following year. The status and the scientific advice for each stock as of September 2013 are described in the table below. Red downward arrow means that the scientists recommend a reduced TAC for the species in question, yellow horizontal arrow means that they recommend that the TAC remains on the same level as the previous year, and green upward arrow means that they recommend an increase in the TAC.

For the fisheries starting in October 2013, the Ministry of Fisheries has fixed the TACs for all species in full accordance with the levels recommended by the scientists. To some extent, the price for the species in question normally goes up when the TAC goes down, and down when the TAC goes up.

Species:	Status of the stock:	Advice:
<p>Cod</p> 	<p>Cod is caught in the Baltic Sea, North Sea and the North-western Waters. (See figure 4 below). In addition to overfishing and underreporting of catches for many years, the stock has also previously suffered from extensive discarding. The Spawning Stock Biomass (SSB) has decreased steadily since 2000 and is now at a historical low. Recruitment has also been poor since 2000. The scientists therefore recommend a 20 % reduction in the TAC for the cod fisheries starting in October 2013 compared to last year's TAC.</p>	
<p>Haddock</p> 	<p>Haddock is also caught in the Baltic Sea, North Sea and the North-western Waters. (See figure 4). The haddock stock has also been subject to overfishing and underreporting, but not to the same extent as the cod stocks. The SSB has increased slightly during the last few years, but recruitment is still rather poor. Hence the scientists recommend that the TAC for the haddock fisheries starting in October 2013 remain at the same level as last year's TAC.</p>	
<p>Saithe</p> 	<p>Saithe is also caught in the Baltic Sea, North Sea and the North-western Waters. (See figure 4). This stock has been subject to large fluctuations during the last ten years. After increasing steadily from 2000 to 2005, the SSB has shown a declining trend since. There is a suspicion that underreporting of catches has increased during the last few years. Recruitment has been below average since 2006, but this is not linked to low SSB. However, the saithe stock is still far more robust than the cod stock. Therefore, as for haddock, the scientists recommend that the TAC for the saithe fisheries starting in October 2013 remain at the same level as last year's TAC.</p>	
<p>Monkfish</p> 	<p>Monkfish is caught in the North Sea, the North-western Waters and in sector VIII in the South-western Waters. (See figure 4). The fisheries on monkfish were unsustainable for many years. However, due to strict regulations and favourable environmental conditions, the stock has improved considerably in later years. The SSB has been increasing since 2005, and</p>	








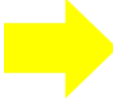
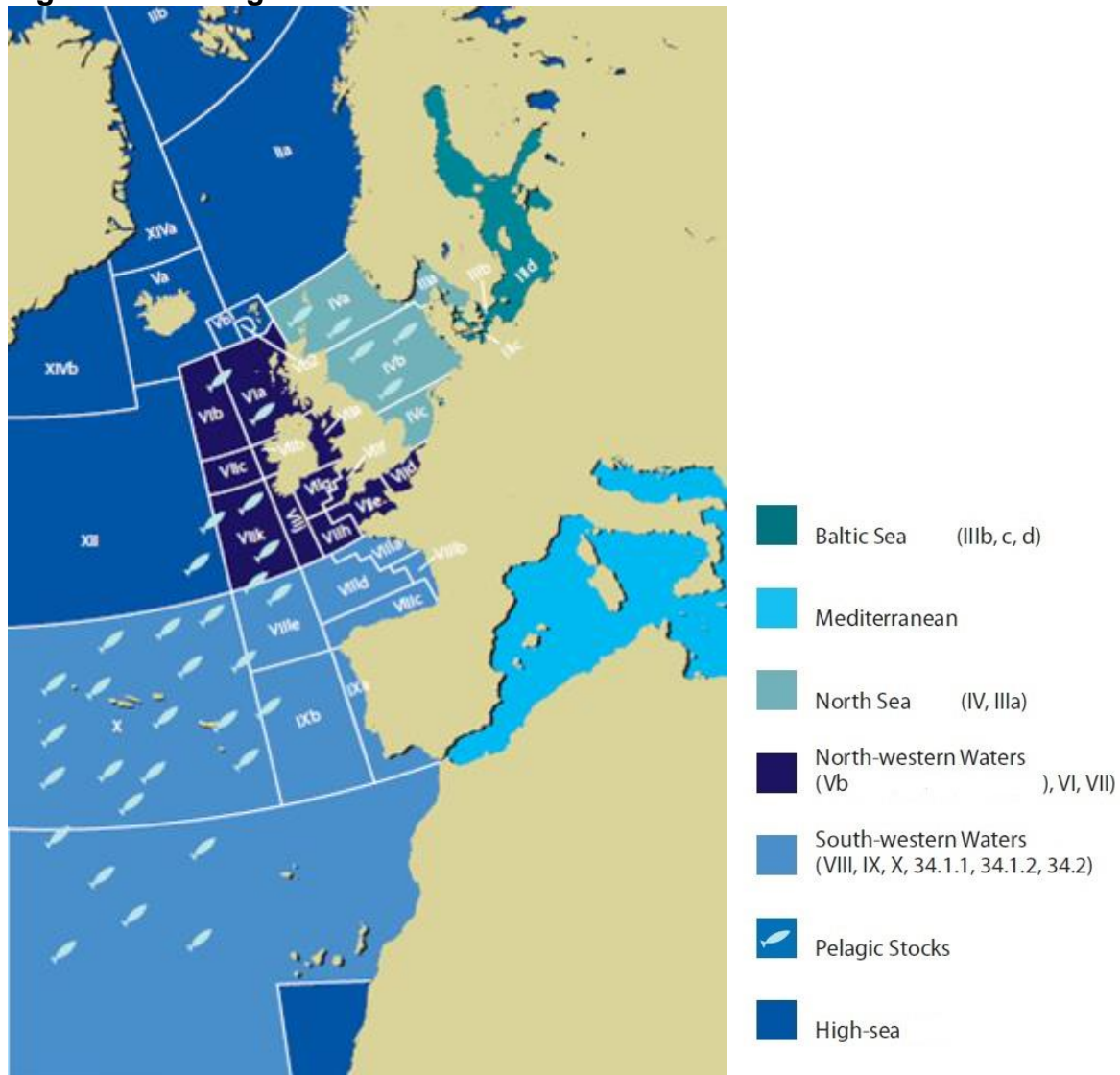
	<p>recruitment has been quite strong every year since 2008. Hence, the scientists recommend a 30 % increase in the TAC for the monkfish fisheries starting in October 2013 compared to last year's TAC.</p>	
<p>Turbot</p> 	<p>Turbot is only caught in the Mediterranean. (See figure 4). The stock is in a very poor state, as it has only been subject to management measures for the last three years. SSB has been at a low level for the last ten years. Especially mature specimens above 6 kg are very rare. Recruitment has been more variable, but the yearclasses have been rather weak every year since 2008. Official catches have been steadily decreasing since 2003. The scientists therefore recommend a 30 % reduction in the TAC for the turbot fisheries starting in October 2013 compared to last year's TAC.</p>	
<p>Mackerel</p> 	<p>Mackerel is normally caught in the North Sea, the North-western Waters, in the South-western Waters (sectors VIII, IX and X), and in the Mediterranean Sea. (See figure 4). However, to protect juveniles and young mackerel, sub-sectors VIIIa and VIIIb are de facto closed for fishing. The minimum size for mackerel is now 20 cm, and nearly all the mackerel below this size are located in these two sub-sectors. As with the cod stock, the mackerel stock has also been subject to heavy overfishing and discarding for many years. The SSB was very robust for many years, but have been declining since 2010. Recruitment has also been poor in later years. The scientists therefore recommend a 15 % reduction in the TAC for the mackerel fisheries starting in October 2013 compared to last year's TAC.</p>	
<p>Sardine</p> 	<p>Sardine is caught in the South-western Waters, in the waters south of sectors IX and X, and in the Mediterranean. (See figure 4). The stock is in a very good state. It is one the best managed stocks in Atlantica, and it has also benefited from reductions in the stocks of its main predators. Discards are considered to be negligible. The level of the SSB has been well above the historical average since 2005, and recruitment has been very good almost every year during the same period. Hence, the scientists recommend a 20 % increase in the TAC for the sardine fisheries starting in October 2013 compared to last year's TAC.</p>	
<p>Tuna</p> 	<p>As with sardine, tuna is also caught in the South-western Waters, in the waters south of sectors IX and X, and in the Mediterranean. (See figure 4). The stock is in a rather weak state. Catches have declined by nearly half from the peak catches in 2003, and the SSB-level is currently considered to be far below the historical average. At the same time, however, recruitment has been quite good during the last few years. Therefore, to increase the SSB, the scientists recommend that the TAC for the tuna fisheries starting in October 2013 remain at the same level as last year's TAC.</p>	

Figure 4 - Fishing areas in Atlantica⁴:



9. The fishing fleet:

The fishing fleet in Atlantica is divided into three different vessel groups according to vessel length: 1. The small vessels, 0-12 meters in length, fishing with gillnets and/or lines; 2. The medium vessels, 12-30 meters in length, fishing with purse-seines and/or lines; 3. The large vessels, >30 meters in length, fishing with purse-seines and/or trawl.

The financial situation of each fishing company depends on several factors. Among other things, this includes: 1. The number of quotas, i.e. whether it has quotas for only one or for several species; 2. The types of fish stocks covered by the quotas. This because the state - and thus the income - of/from the various stocks can be very different; 3. The debt ratio, i.e. the ratio between the size of the company's debt, on the one hand, and the value of its physical assets and quotas on the other. In short: The fewer the quotas, the more critical the state of the fish stock(s) in question and the higher the debt ratio, the worse is the financial situation of the fishing company in question.

⁴ Based on a map from the European Commission:

http://ec.europa.eu/fisheries/documentation/publications/cfp_factsheets/fishing_areas_en.pdf

The fifteen biggest fishing companies and their quotas and debt ratios are presented in Appendix C. All these companies suffer from excess capacity, and all have old vessels in their fleet which are no longer in use.

Everything else being equal, the fuel costs for each company increase when the distance to the fishing area in question increases - and vice versa. Hence, to save fuel costs, all companies are normally landing their catches in the designated port closest to the fishing area where their catches are taken. This port will also normally be the home port of their vessel(s). If the company has several vessels fishing in several different fishing areas on the same or other species, they will normally land their catches and establish additional home ports/'bases' in the designated ports closest to these other fishing areas as well.

The home ports and regular landing ports of the fifteen biggest fishing companies are presented in Appendix D.

10. Landings and processing factories:

At present, the fishing companies are free to land their catches in any of the designated ports. However, as already mentioned, all companies are normally landing their catches in the designated port closest to the fishing area where their catches are taken, to save fuel costs.

- Cod, haddock and saithe are normally landed in Stockport, Bergport and Galport.
- Monkfish is normally landed in Bergport, Galport, and Rochport.
- Turbot is normally landed only in Romport.
- Mackerel is normally landed in Bergport, Galport, Rochport, Lisport and Romport.
- Sardine is normally landed in Rochport, Lisport and Romport
- Tuna is normally landed in Rochport, Lisport and Romport.

With the exception of Stockport, where there are only whitefish⁵ processing factories, there are processing factories for both whitefish and pelagic⁶ fish in all the other designated ports. In Rochport, there is only one mackerel processing factory, however.

⁵ Cod, haddock, saithe, monkfish and turbot.

⁶ Mackerel, sardine and tuna.

Annex A: The Ministry of Fisheries

The top official in the Ministry is the Minister of Fisheries. Under her is the Secretary General, who is the highest-ranking non-elected official in the Ministry. Under him are the Department Managers who lead the various departments of the Ministry, and under them are the Section Managers who lead the various sections under each department. The Ministry is divided into four departments: 1. The Research, Management and Administration Department; 2. The Marine Environment and Coastal Management Department; 3. The Department for Fish and Fish Products; 4. The Fisheries and Aquaculture department.

The Research, Management and Administration Department:

The department is divided into the following three sections: (i) The Budget Section; (ii) The Administration Section; (iii) The Research and Innovation Section.

The Budget Section:

This section has the overall responsibility for work on the national budget for the fisheries sector, management of sub-ordinate agencies, as well as socio-economic evaluations and analyses.

The Administration Section:

This section is responsible for issues relating to the internal administration and financial management in the Ministry, human resources policy and wages, service and support to the departments in the Ministry, as well as archives and documentation.

The Research and Innovation Section:

This section is responsible for policies relating to research and innovation, management of the relevant national research institutes, as well as development of new industries in the marine sector in Atlantica.

The Marine Environment and Coastal Management Department:

The department is divided into the following three sections: (i) The Marine Environment Section; (ii) The Coastal Management Section; (iii) The Maritime Safety and Emergency Preparedness Section.

The Marine Environment Section:

This section is responsible for national policies relating to the marine environment, including matters relating to marine conservation, marine protected areas, marine biodiversity, the relationship between fisheries and other marine/maritime industries, the effect of climate change on fisheries, etc. In addition, the section is also responsible for international co-operation and agreements in this field.

The Coastal Management Section:

This section is responsible for all matters relating to inshore transport, such as policies relating to harbours in general, designated landing ports and fairways, as well as operation and maintenance of maritime infrastructure along the coast, and the pilot service.

The Maritime Safety Section:

This section is responsible for policies relating to safety at sea, including matters relating to navigation and traffic monitoring, as well as emergency preparedness against acute pollution. The section is also responsible for international co-operation in this field.

The Department for Fish and Fish Products:

The department is divided into the following three sections: (i) The Section for Industry and Markets; (ii) The Section for Trade Policy; (iii) The Section for Consumer Interests.

The Section for Industry and Markets:

This section is responsible for policies relating to the further development and profitability of the land-based fishing industry, including allocation of financial support to the industry, infrastructure etc. between the different coastal communities. Furthermore, it is also responsible for analytic and strategic work relating to the promotion of Atlantic fish and fish products abroad.

The Section for Trade Policy:

This section is responsible for trade policy issues, including market access in other countries, as well as bilateral and multilateral trade agreements. In addition, it is also responsible for customs issues and catch certificates.

The Section for Consumer Interests:

This section is responsible for issues relating to the safety and quality of fish and fish products, including co-ordination of food safety issues with other responsible authorities, as well as international co-operation and agreements in the field of food safety. Moreover it is also responsible for matters relating to traceability and labeling of products, and for the domestic promotion of Atlantic fish and fish products.

The Fisheries and Aquaculture Department:

The department is divided into the following four sections: (i) The Fisheries Management Section; (ii) The Fisheries Industry Section; (iii) The Aquaculture Management Section; (iv) The Aquaculture Industry Section.

The Fisheries Management Section:

This section is responsible for international issues such as quota and management agreements with other countries, issues related to the Law of the Sea, and co-operation in international organizations on fisheries management and control. Furthermore, the section is also responsible for the annual regulations of the fisheries and technical regulations such as minimum fish sizes and mesh sizes.

The Fisheries Industry Section:

This section is responsible for the regulation of fishing rights and licencing arrangements, and for allocation of resources between and/or within the various vessel groups. Furthermore, it is also responsible for capacity regulations and allocation of financial support for decommissioning between the different fleet groups. Finally, it is also responsible for delivery obligations for fishing vessels.

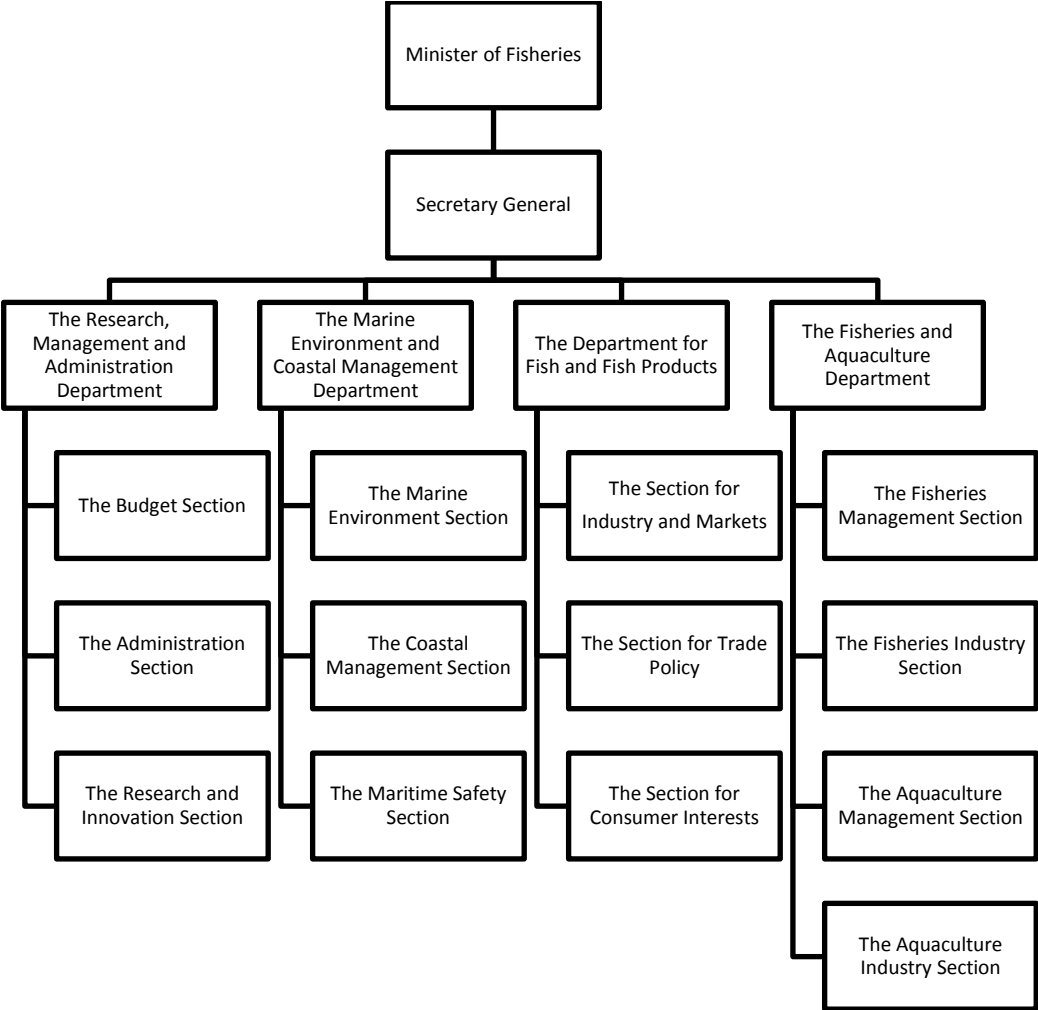
The Aquaculture Management Section:

This section is responsible for management of the aquaculture sector, including environmental issues such as escapes and pollution from the facilities, the health and welfare of the fish, and international co-operation in the aquaculture field.

The Aquaculture Industry Section:

This section is responsible for the management and development of the aquaculture industry, including structural issues relating to production limitations and sea area management, as well as policies relating to allocation of production licences and sites.

Organization chart for the Ministry of Fisheries in Atlantica:



Annex B: The National Fisheries Agency

The top official in the Agency is the Director. Under him are the Department Managers who lead the various departments of the Agency, and under them are the Section Managers who lead the various sections under each department. The Agency is divided into three departments: 1. The Department for Administrative Affairs, IT and Statistics; 2. The Department for Aquaculture and Coastal Management; 3. The Department for Fisheries Management.

The Department for Administrative Affairs, IT and Statistics:

The department is divided into the following three sections: (i) The Section for Administrative Affairs; (ii) The IT Section; (iii) The Section for Statistics.

The Section for Administrative Affairs:

This section is responsible for issues relating to the internal administration and financial management in the Agency, including budgeting, planning and financial control. Furthermore, it is also responsible for personnel administration and wages, as well as internal service and support to the various departments in the Agency. It is also responsible for overall administration of the RFOs.

The IT Section:

This section is responsible for IT procurement, training and support functions, as well as operation and maintenance of the technical infrastructure in the entire Agency, including the RFOs. It is also responsible for the development of specialized software for the Agency.

The Section for Statistics:

This section is responsible for the operation of the ERS/VMS-system and the national quota-/catch-registers. It is also responsible for producing, compiling and organizing different types of statistics relating to fisheries and aquaculture.

The Department for Aquaculture and Coastal Management:

The department is divided into the following three sections: (i) The Section for Aquaculture Management; (ii) *The Section for Coastal Management*; (iii).

The Section for Aquaculture Management:

This section is responsible for management and control of the aquaculture sector, as well as drafting proposals for new legislation and regulations in this sector. Furthermore, the section is also responsible for handling appeals against RFO decisions concerning licences for aquaculture production, and for maintaining the national register of all fish farmers in Atlantica.

The Section for Coastal Management:

This section is responsible for coastal zone planning both at the local and regional level. This both includes commercial development and utilization, on the one hand, and environmental issues such as biological diversity, marine conservation, as well as emergency preparedness against acute pollution in the coastal zone.

The Section for Sustainable Aquaculture Production:

This section is responsible for environmental issues related to escapes and pollution from the production facilities. This includes, inter alia, work on internal controls and technical standards to prevent escapes and minimize pollution from the facilities, collecting and updating escape data, as well as dealing with matters relating to national salmon fjords and watercourses. It is also responsible for issues relating to fish health and welfare.

The Department for Fisheries Management and Land-Based Industry:

The department is divided into the following four sections: (i) The Section for Fisheries Licences; (ii) The Section for the Regulation of Fisheries; (iii) The Innovation Section; (iv) The Section for Fisheries Control; (v) The Section for Land-Based Fishing Industry.

The Section for Fisheries Licences:

This section is responsible for issuing new fishing licences where these have been permanently withdrawn from 'blacklisted' IUU-companies, where fishing companies have gone out of business, or where fish stocks are underutilized. In addition, it is also responsible for maintaining the national vessel register and for handling appeals against RFO decisions concerning withdrawal of fishing licences.

The Section for the Regulation of Fisheries:

This section is responsible for drafting technical regulations which supplements the regulations from the Ministry when time is limited, for instance when it comes to temporary area closures or urgent changes in the fishing seasons. Furthermore, it is also responsible for the reallocation of quotas.

The Innovation Section:

This section is responsible for developing and testing new fishing equipment which are more selective and more friendly towards the marine environment. Furthermore, it is also responsible for developing new fishing models which are more ecologically sustainable as well as more profitable for the fishing industry. Finally, the section is responsible for dealing with matters concerning the relationship between fisheries and other marine/maritime industries.

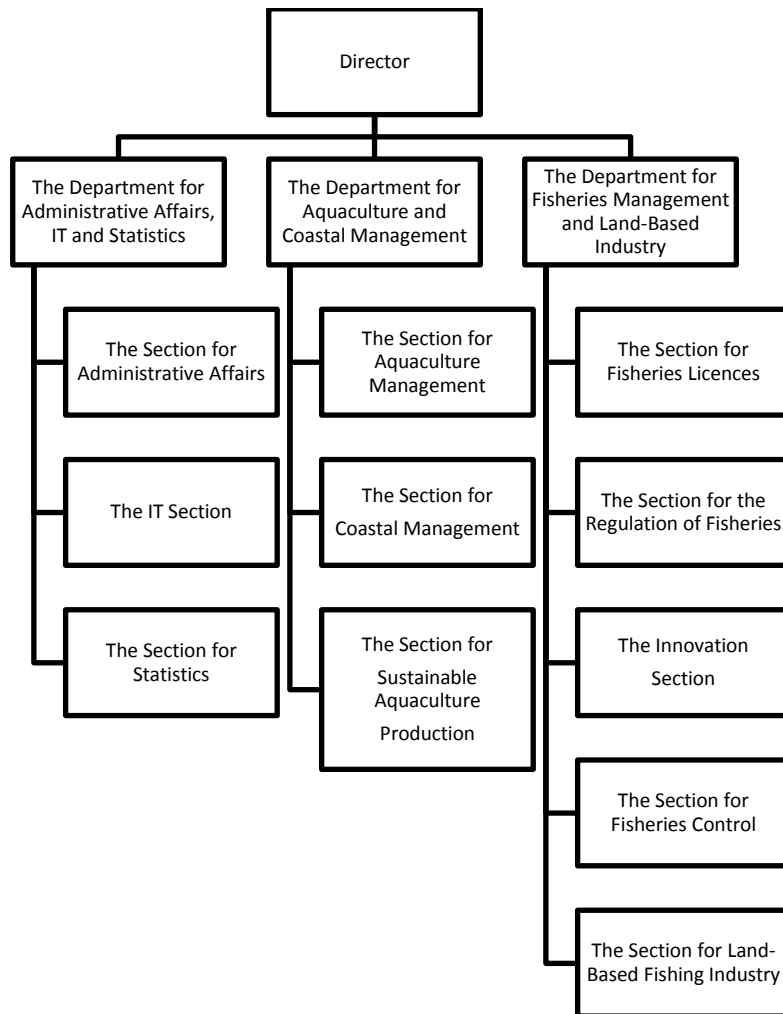
The Section for Fisheries Control:

This section is responsible for the overall management and co-ordination of the various fisheries control activities of the Agency. Inter alia, this includes risk analyses and other strategic work in this field. In addition, it is also responsible Handling appeals against RFO decisions concerning fines, confiscation of catch and/or equipment.

The Section for Land-Based Fishing Industry:

This section is responsible for handling applications for grants from the AFF to processing factories, to investments in local infrastructure in fishing ports, and to projects for the development of new industries in vulnerable fishing communities. It is also responsible for the follow-up of these applications, and for the control of the use of the funds.

Organization chart for the National Fisheries Agency in Atlantica:



Annex C: The 15 biggest companies in the fishing fleet, quotas (marked with an "X") and debt ratios:

Species:	Cod:	Haddock:	Saithe:	Monkfish:	Turbot:	Mackerel:	Sardine:	Tuna:	Debt ratio:
Vessels 0-12 meters length:									
Company:									
<i>Demersal Silver Ltd</i>	X	X	X						70%
<i>Pelagic Line Fishers Ltd</i>						X		X	60%
<i>Fresh Cod Ltd</i>	X								90%
<i>Demersal Gold Ltd</i>	X	X	X	X	X				80%
<i>Gillnet & Line Fishers Ltd</i>				X	X	X			65%
Vessels 12-30 meters length:									
Company:									Debt ratio:
<i>Monkfish Liners Ltd</i>				X					90%
<i>Pelagic Gold Ltd</i>						X	X	X	85%
<i>Sardine Fishers Ltd</i>							X		90%
<i>Atlantic Autoliners Ltd</i>	X	X	X	X					75%
<i>Whitefish Liners Ltd</i>					X				90%
Vessels >30 meters length:									
Company:									Debt ratio:
<i>Pelagic Silver Ltd</i>						X		X	85%
<i>Whitefish Trawlers Ltd</i>	X	X	X						80%
<i>Mackerel Purse Seiners Ltd</i>						X			90%
<i>Pelagic Trawlers Ltd</i>						X	X		75%
<i>Whitefish & Tuna Ltd</i>	X	X	X					X	60%

Annex D: The 15 biggest companies in the fishing fleet and their home ports/regular landing ports (marked with an "X"):

Port:	Stockport:	Bergport:	Galport:	Rochport:	Lisport:	Romport:
Vessels 0-12 meters length:						
Company:						
<i>Demersal Silver Ltd</i>	X	X	X			
<i>Pelagic Line Fishers Ltd</i>				X	X	
<i>Fresh Cod Ltd</i>	X					
<i>Demersal Gold Ltd</i>	X	X	X	X		X
<i>Gillnet & Line Fishers Ltd</i>				X	X	X
Vessels 12-30 meters length:						
Company:						
<i>Monkfish Liners Ltd</i>		X	X	X		
<i>Pelagic Gold Ltd</i>		X	X	X	X	X
<i>Sardine Fishers Ltd</i>				X	X	
<i>Atlantic Autoliners Ltd</i>		X	X	X		
<i>Whitefish Liners Ltd</i>						X
Vessels >30 meters length:						
Company:						
<i>Pelagic Silver Ltd</i>				X	X	X
<i>Whitefish Trawlers Ltd</i>	X	X	X			
<i>Mackerel Purse Seiners Ltd</i>				X		
<i>Pelagic Trawlers Ltd</i>				X	X	
<i>Whitefish & Tuna Ltd</i>			X	X	X	