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**COMMISSION STAFF WORKING DOCUMENT**

**Accompanying the**

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT AND THE COUNCIL**

**On a European Community Plan of Action for the Conservation and  
Management of Sharks**

**SUMMARY OF THE IMPACT ASSESSMENT**

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## **1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES**

This Impact Assessment (IA) concerns a proposal for a Communication from the Commission to the European Parliament and the Council on a European Community Plan of Action for the Conservation and Management of Sharks. The report has been drafted taking into consideration the results of public and institutional consultations and a study commissioned from a private consultant on this subject.

## **2. PROBLEM DEFINITION**

### **2.1. Issues requiring action**

Despite their known vulnerability to overfishing, chondrichthyans (sharks, rays and chimaeras) have been increasingly exploited in recent decades. A number of factors are responsible for this trend, which have made sharks a more valuable fisheries resource.

Shark populations are generally fragile when targeted by unregulated fisheries, resulting in a pattern of 'boom and bust'. Rising catches are followed by rapid declines and very slow recoveries when stocks are then protected. Roughly one third of European shark species found in EU waters are considered by the International Union for the Conservation of Nature (IUCN) to be threatened with extinction.

Within the framework of the Code of Conduct for Responsible Fisheries, the FAO adopted in 1999 the International Plan of Action for the conservation and management of sharks (IPOA SHARKS). This international plan is voluntary but all concerned states are encouraged to implement it.

Therefore, the Commission plans to adopt at the beginning of 2009 of a Communication on a Community Plan of Action for the Conservation and Management of Sharks.

### **2.2. Underlying drivers of the problem**

In general, chondrichthyans have life histories characterised by low fecundity, large young, slow growth, late maturity, long life and high survival in all age classes. This set of life history characteristics results in low reproductive potential and low capacity for population increase, which limits their capacity to recover from over-fishing or other negative impacts.

The ability to manage chondrichthyan stocks in both European waters and elsewhere is severely limited by the lack of detailed information on catches, discards and landings. Traditionally, not only have catches, discards and landings been under-recorded, but trade in shark products has also been poorly understood and trade statistics are poor.

One of the main problems for the management of sharks in EU waters is the mixed nature of demersal fisheries, which makes it very difficult to target action to protect sharks without severe consequences for the other species caught. Furthermore, the considerable overcapacity of the fleets that catch small sharks, skates and rays as by-catch in demersal fisheries is also an important driver of the management problems in this area.

### **2.3. Who is affected?**

The Community Plan of Action (CPOA) will potentially affect a wide range of stakeholders. This impact assessment aims to capture the economic, environmental and social consequences for those affected stakeholders, which include the catching and processing sectors, retailers, consumers, and civil society at large.

### **2.4. How would the problem evolve?**

A number of legal measures have so far been taken to address aspects of the conservation and management of sharks at both international and Community level. However, there are clear indications of reductions of shark populations. The true status of most elasmobranch populations, however, remains uncertain due to lack of stock specific information particularly over significant time series. This situation is likely to persist if no further action is taken.

## **3. OBJECTIVES**

The Plan of Action is based on three main specific objectives:

- (1) Broaden the knowledge both on shark fisheries and on shark species and their role in the ecosystem.
- (2) Ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated.
- (3) Encourage a coherent approach between the internal and external EC fishery policy for sharks.

In order to achieve the three specific objectives of the CPOA as set out in its consultation document, the Commission proposed nine ‘fields of action’ or operational objectives.

## **4. POLICY OPTIONS**

The IA presented in section 5 considers three main options:

### ***Option A: Status Quo with no Action Plan.***

This Option represents continuation of the current status quo with no CPOA and maintaining the current Community legislation on sharks, while adapting it to new circumstances where necessary taking into consideration new scientific advice.

### ***Option B: A number of ‘Fields of Action’ to be addressed.***

Following the IA study, the fields of action have been reduced from the nine submitted to public consultation to five by merging some of them.

In addition, for each measure (or activity) a number of different implementation alternatives (‘hard’ or ‘soft’) have been considered.

### ***Option C: Application of a strict precautionary approach.***

Adoption of an Action Plan to modify the current Community legislative framework applying to sharks by introducing strict interpretation of the precautionary approach and prohibiting all directed shark fisheries or indirect catches of sharks by Community vessels, unless TACs and other regulatory measures have been put in place following scientific advice.

## 5. ANALYSIS OF IMPACTS

### 5.1. Option A

<b>Environmental impacts</b>	<p>Continued generic or mis-reporting of species may prevent the development of targeted fisheries management plans to prevent the over-exploitation of sharks.</p> <p>Despite increased efforts by the Commission, ICCAT, IOTC and other RFMOs to include pelagic sharks in stock assessments (especially for tuna fisheries), some stocks may continue to decline, with some of the most vulnerable species facing extinction. This may be reversed by future recovery plans that might be implemented under the status quo.</p> <p>Removal of keystone species and apex predators leads to simplification of the marine ecosystem, reduced biodiversity and reduced ecosystem functionality.</p>
<b>Economic impacts</b>	<p>The distant-water fleets of Spain, Portugal and France are the most economically dependent on shark fisheries. A reduction in blue shark catches, especially in the Indian Ocean, where the blue shark stock status is 'highly uncertain' and where 'because of their life history characteristics ... the blue shark is vulnerable to overfishing' (IOTC, 2007), might affect the surface longline fleet in particular. Although ICCAT considers blue shark catches in the N and S Atlantic to be above biomass at MSY (ICCAT, 2005), the long-term trend in CPUE is downwards.</p> <p>N Atlantic shark catches yield some benefits for EU fleets, although they make up a relatively small proportion of total production.</p> <p>It is highly likely that catches will decline over the longer term as a result of stock depletion, thus impacting both the catching and processing sub-sectors.</p> <p>This option has no significant economic impacts for the EU Member State control authorities, although this may change over the longer term.</p>
<b>Social impacts</b>	<p>Overall, the greatest employment dependency is found in the mixed fisheries of the N Atlantic, although social dependency (in terms of value of landing per employee) is higher for the distant-water fleets. Impacts are likely to be medium in magnitude and likelihood.</p> <p>Some EU NUTS-2 regions are particularly dependent upon fisheries, including shark, especially Galicia, Bretagne, NE Scotland, Highlands and Islands, and the Algarve, and may suffer significant social challenges as shark catches decline. Impacts are likely to be high in terms of both magnitude and likelihood in such dependent areas.</p> <p>The opportunities for stakeholder involvement in sectoral governance will remain limited, contributing to a likely slide in stock status.</p>
<b>Risks and trade-offs</b>	<p>Risks are minimal over the short to medium term.</p> <p>Public opinion would be negative if the CPOA was not adopted, given the high profile this issue has gained in the international press and the recent progress made by others, e.g. the US NMFS.</p>

## 5.2. Option B

<b>Field of Action 1: Improved identification &amp; reporting</b>	<b>Environmental impacts</b>	Strongly positive impact on the ability to manage stocks and to implement measures targeting vulnerable or threatened species. Improvements to stock status and downstream ecological benefits likely but longer term. These impacts are mostly low to medium in magnitude and medium to high in likelihood.
	<b>Economic impacts</b>	Many measures likely to incur direct costs for regulatory authorities, but to a lesser extent under softer regulatory conditions (e.g. €3.7m for 40% observer coverage as against €9.26m for 100%). Impacts are mostly medium to high in magnitude and high in likelihood. Extra data collection is unlikely to have a significant negative economic impact. Would help safeguard current economic benefits.
	<b>Social impacts</b>	All stakeholders would gain positive direct benefits over all time scales, plus longer-term indirect social benefits. Impacts are mostly medium in magnitude and high in likelihood.
	<b>Risks and trade-offs</b>	Stakeholder response would be highly favourable, although divided over hard and soft sub-options. Risks stem from the acceptability and uptake of measures among non-EU RFMO contracting parties (catches by EU vessels make up only a proportion of catches by other flags in areas regulated by RFMOs).
<b>Field of Action 2: Research-based conservation measures</b>	<b>Environmental impacts</b>	Strongly positive, esp. for vulnerable and threatened species, with low to medium magnitude and medium to high likelihood.
	<b>Economic impacts</b>	Negative in terms of the high costs involved, albeit mostly short-term, but probably positive over the long term with economic benefits for implementing agencies. Impacts medium in magnitude but high in likelihood. Positive indirect economic impact over the longer term by sustaining or re-building stocks.
	<b>Social impacts</b>	Positive direct impacts over all time scales, mainly through capacity enhancement. Many indirect benefits in maintaining or enhancing incomes based on shark catches. Impacts medium in magnitude but high in likelihood.
	<b>Risks and trade-offs</b>	Stakeholder response would be highly favourable. Some risk regarding the acceptability and uptake of measures among non-EU RFMO contracting parties for those stocks extending into the high seas.
<b>Field of Action 3: Improved stakeholder awareness</b>	<b>Environmental impacts</b>	Reduced post-discard mortality and greater selectivity, as well as more accurate reporting. Impacts low in magnitude and medium in likelihood.
	<b>Economic impacts</b>	Largely short-term direct costs for the EU and Member States, but positive impact for implementing agencies. Impacts medium in magnitude but high in likelihood. Positive economic benefits over the longer term for all stakeholders.
	<b>Social impacts</b>	Positive direct social impacts over all time scales through enhanced stakeholder knowledge and involvement in sectoral governance. Many indirect benefits in maintaining or enhancing incomes based on shark catches.

	<b>Risks and trade-offs</b>	Stakeholder response would be highly favourable. Risks stem from the acceptability and uptake of measures among non-EU RFMO contracting parties for those stocks extending into the high seas.
<b>Field of Action 4: Adjust fishing effort and catches to available resources</b>	<b>Environmental impacts</b>	Highly positive direct response in terms of both stock conservation and biodiversity. 'Harder' options (e.g. immediate precautionary TACs) yield the same benefits but over a shorter time scale. Impacts high in both magnitude and likelihood.
	<b>Economic impacts</b>	Negative short-term impacts for catching and processing sectors, which may be significant for highly dependent fleets. Most costs would diminish over the longer term. Impacts medium in magnitude but high in likelihood.  Indirect impacts would be strongly positive over the longer term as stocks recover and controls are relaxed.
	<b>Social impacts</b>	Patchy but significant negative impacts over the short to medium term, especially for the catching and processing sectors. Impacts medium in magnitude but high in likelihood.  Many indirect benefits in maintaining or enhancing incomes based on shark catches, especially over the longer term.
	<b>Risks and trade-offs</b>	All stakeholders supportive, although sensitive to the nature of implementation measures (e.g. immediate or phased introduction).
<b>Field of Action 5 Minimise wastes and discards from sharks</b>	<b>Environmental impacts</b>	Significant impact for certain species, particularly blue shark and short-fin mako sharks, which are the fisheries currently subject to the majority of finning derogations. Impacts medium in both magnitude and likelihood.
	<b>Economic impacts</b>	Mainly impacts distant-water fleets making use of derogations under Regulation 1185/2003. High likelihood but low to medium magnitude. Monitoring, control and surveillance (MCS) costs would increase but probably not significantly.
	<b>Social impacts</b>	Short-term, medium-magnitude negative impacts, especially on distant-water fleets and home ports (e.g. Galicia).
	<b>Risks and trade-offs</b>	Public opinion suggests some action is required, but there is a risk of non-action by other parties and effort displacement to other vulnerable species.

### 5.3. Option C

<b>Environmental impacts</b>	Similar to Option B, but over a shorter time scale. High magnitude and high impact. NE Atlantic stocks would particularly benefit in terms of recovery.
<b>Economic impacts</b>	Short- to medium-term negative economic impacts would be highly significant and certain, with some specific targeted and mixed fisheries potentially becoming unviable. Without shark-related income (approx. 25%), EU distant-water longlining fleets may become unviable (only under a no-catch scenario). Over the longer term, this option may be positive for all stakeholders if stocks recover sufficiently to allow precautionary TACs.
<b>Social</b>	Short- to medium-term negative social impacts in some areas of N Atlantic and

<b>impacts</b>	<p>Mediterranean with dependencies.</p> <p>Highly negative short- to medium-term social impact on a limited number of highly dependent home ports and downstream processes for distant-water fleets.</p>
<b>Risks and trade-offs</b>	<p>The highly significant short-term impacts of this option would result in significant industry and associated political opposition.</p> <p>The benefits from shared stocks in the high seas and third country waters would be diminished through non-compliance and a (presumed) lack of regulatory uptake by RFMO contracting parties.</p>

#### 5.4. Comparison of the impacts

Option	Impact		
	Environmental	Economic	Social
<b>Option A</b>	<ul style="list-style-type: none"> <li>Progressive decline in many shark species and ecosystem impairment.</li> </ul>	<ul style="list-style-type: none"> <li>Little short- to medium-term impact, but increasing over the long term</li> </ul>	<ul style="list-style-type: none"> <li>Little short- to medium-term impact, but increasing over the long term</li> </ul>
<b>Option B FoA 1</b>	<ul style="list-style-type: none"> <li>Improved management, esp. of threatened / vulnerable species</li> </ul>	<ul style="list-style-type: none"> <li>Little negative impact on industry but costly to implement</li> </ul>	<ul style="list-style-type: none"> <li>Some direct benefits for all over all time scales</li> </ul>
<b>Option B FoA 2</b>	<ul style="list-style-type: none"> <li>Improved management, esp. of threatened / vulnerable species</li> </ul>	<ul style="list-style-type: none"> <li>High direct public costs over the short term, but indirect benefits later</li> </ul>	<ul style="list-style-type: none"> <li>Improved public sector employment and capacity</li> </ul>
<b>Option B FoA 3</b>	<ul style="list-style-type: none"> <li>Benefits limited to species susceptible to intervention</li> </ul>	<ul style="list-style-type: none"> <li>Some direct public costs over the short term, but indirect benefits later</li> </ul>	<ul style="list-style-type: none"> <li>Indirect benefits through increased stakeholder capacity for sectoral governance</li> </ul>
<b>Option B FoA 4</b>	<ul style="list-style-type: none"> <li>Strongly positive, esp. with harder sub-options</li> </ul>	<ul style="list-style-type: none"> <li>Negative short-term impacts on catching / processing sectors, but improving over the long term</li> </ul>	<ul style="list-style-type: none"> <li>Localised but significant short- to medium-term impacts on dependents, improving over the long term</li> </ul>
<b>Option B FoA 5</b>	<ul style="list-style-type: none"> <li>Significant impact for certain species</li> </ul>	<ul style="list-style-type: none"> <li>May impact longlining distant-water fleet</li> </ul>	<ul style="list-style-type: none"> <li>May impact longlining distant-water fleet</li> </ul>
<b>Option C</b>	<ul style="list-style-type: none"> <li>Similar to Option B, but over shorter time scale</li> </ul>	<ul style="list-style-type: none"> <li>Highly negative over short and medium term.</li> </ul>	<ul style="list-style-type: none"> <li>Highly negative over short and medium term</li> </ul>

## 6. COMPARING THE OPTIONS

The options for applying the Shark Action Plan are examined above along with their relative impacts.

Given the evidence of a deteriorating situation for a number of shark populations, Option A would not allow the EU to come up with an effective systematic response in time and the present situation could become unacceptable.

If fully implemented and complied with, Option C would be highly effective in achieving both data and management objectives. However, the strong drawbacks noted above mean that this cannot be the preferred option.

The IA therefore concludes that the preferred option is an amended version of Option B. The main elements of the selected option include measures for data collection and scientific advice, management and technical measures and further limitations on shark finning practices.

## 7. CONCLUSION

In summary, there are negative impacts associated with the present status quo increasing over the long-term. The actions under option B, as amended, should go along way to reversing those impacts, particularly within Community waters, without unacceptable social and economic short- or medium-term impacts.