



## FISHERIES AGREEMENTS WITH THIRD COUNTRIES – IS THE EU MOVING TOWARDS SUSTAINABLE DEVELOPMENT?

*This IEEP report was commissioned by WWF's European Fisheries Campaign. Its aim is to review progress in adapting access agreements to the EU's sustainable development commitments, by reviewing four recently-concluded EC agreements with São Tomé e Príncipe, Angola, Senegal and Mauritania. In each case, an analysis is given of the agreements, in terms of their cost per vessel or tonne of vessel, the use of TACs or effort controls to regulate fishing pressure under the agreements, and the estimated value of catches under each agreement. A comparison with previous agreements is also made. Broad conclusions are drawn at the end of the paper.*

### 1 Introduction

The EC has agreements with third countries that give EU vessels access to their fisheries resources in return for financial compensation. The Community's very first agreement was signed with Senegal in 1979. Currently, financial compensation agreements exist with 20 countries, most of them in Africa. In 2000, the EU paid a total of EUR 137.45 million under these agreements.

Although EU policy in this area is long established, fisheries access agreements with third countries continue to attract criticism. Social and environmental interests frequently claim the EU is 'exporting' fishing vessels, without due regard to the impacts that intensive fishing has on the natural resources and dependent fishing communities in other countries. The economic benefit of agreements for the EC is also questioned, since considerable sums are essentially used to subsidise access to resources for private operators.

In order to address some of these criticisms, the Council adopted a set of conclusions in November 1997 in which it reaffirmed its commitment to third country agreements, but recognised the need to adapt the policy approach in line with both international conservation and management commitments and internal budgetary constraints. Fisheries access agreements also need to be coherent with EU conservation and development policy, and a lengthy process has resulted in a joint Communication and a Council Resolution on Fisheries and Poverty Reduction. The Council (30 May 2002) has subsequently committed to 'developing a European Union strategy for distant water fisheries to contribute to sustainable fishing outside Community waters through global and bilateral partnership at national and/or regional level as well as by

reviewing the EC's bilateral agreements in the field of fisheries and its Common Fisheries Policy' as part of the EU's comprehensive Sustainable Development Strategy.

In December 2002, the European Commission published a Communication, On an Integrated Framework for Fisheries Partnership Agreements with Third Countries (COM(2002)637), which advocates a new approach to fisheries agreements based on moving beyond the 'cash for access' agreements negotiated to date. In the Communication, the Commission states that 'these partnership agreements will ensure both that the interests of the EU distant water fleet are protected and that the conditions to achieve sustainable fisheries in the waters of the partner country are strengthened'.

## **2 EC Fisheries Agreement with São Tomé and Príncipe**

An agreement between the EC and São Tomé and Príncipe was signed in 2002, and covers the three-year period from 1 June 2002 to 31 May 2005. The cost to the EC amounts to a total of EUR 2.2 million in return for access to offshore tuna fisheries (beyond 12nm limits) for up to 63 vessels and to crab fisheries (from the 650 isobath) for 3 vessels. Three countries benefit from this agreement: Spain (40 vessels), France (18 vessels) and Portugal (8 vessels).

The agreement follows on from a very similar agreement (2000) with São Tomé and Príncipe. The purpose of the renewal was to allow continued access to tuna in the Exclusive Economic Zone (EEZ) and to obtain new fishing opportunities for crab. The agreement is an integral part of the network of agreements to fish tuna, which allows the Community fleet to follow migratory and straddling stocks in the Atlantic zone. São Tomé and Príncipe waters are also indispensable to the transit of the EU fleet to fish in the waters of neighbouring countries.

### ***2.1 Cost and Value of the Agreement***

EC expenditure under the agreement amounts to a total of EUR 2.2 million, including financial compensation of EUR 1,320,000 and funds for various targeted measures (eg surveillance, study grants, aid for the small-scale sector) amounting to EUR 930,000. Given that the maximum number of vessels fishing under the agreement is 66, the average cost per vessel for the EC is at least EUR 11,111 per year.

Vessel owners are required to pay EUR 25 per tonne of tuna caught. Vessels fishing under the agreement also have to pay an annual licence fee. Tuna seiners, pole and line, and surface long-liners pay a fixed fee of EUR 3,750, EUR 625 and EUR 1,000 to 1,375 (depending on size) respectively per vessel per year. Crab vessels pay a quarterly fee of EUR 42 per GRT per vessel (or a maximum of EUR 10,500 per boat).

It is difficult to calculate the economic value of the agreement, since actual tuna catches are only known for 1999 and 2000. We know, however, that the commercial value of tuna ranges from EUR 500 to EUR 1,500 per tonne depending on the species. With a catch limit of 8,500 tonnes, the absolute maximum value of the catch would be EUR 12.75 million (if the limit was reached and all fish was in the highest price

range). If we instead base the value on the average catches for the two-year period known, it would be EUR 2.06 million (year average and a value of EUR 1,000). This is only 3.46 times as much as the yearly cost of the agreement. Considering the commercial value of different tuna species, the standard fees and penalty costs (EUR 25 per tonne of tuna and EUR 75 respectively) for vessel owners can be considered low. The commercial value of crab is approximately 5,000 EUR per tonne, but we do not know what the catches will be.

## **2.2 *Management Measures Under the Agreement***

There is an annual catch limit of 8,500 tonnes of tuna under the agreement, with access given to a total of 36 freezer tuna seiners, 2 pole-and-line tuna vessels and 25 surface long-liners. Tuna seiners must make any bycatch available to São Tomé and Príncipe Directorate for fisheries, which will take charge of recovering and landing them. Vessels have to apply the international standards on tuna fishing as recommended by the International Commission for the Conservation of Atlantic Tunas (ICCAT). If the annual catch exceeds the limit of 8,500 tonnes, the financial compensation under the agreement is to be increased by a set fee per tonne.

No total allowable catch limit is set for crab, but access is limited to 3 deep-water vessels under 250 GRT. The deep-water crab fishery is experimental and will last only twelve months. Included in the financial contribution from the EC is a premium of EUR 50,000 for an evaluation of the crab stocks, and catch limits for the coming years will be set depending on the results. A joint scientific meeting to evaluate the state of the crab resources is to be held annually.

## **2.3 *Monitoring and Review***

São Tomé and Príncipe officials are responsible for inspection and monitoring of fishing activities. A fishing log in accordance with the ICCAT model in Annex 2 of the agreement must be kept on each tuna vessel. It has to be filled in even when no catches are taken, and should also contain entries recording when the vessel leaves the EEZ of São Tomé and Príncipe. Reports have to be sent in to the fisheries authorities within 45 days after ceasing to fish in São Tomé waters. In addition, Member States must report the number of tonnes caught in the past year to the European Commission before 31 July each year.

Vessels targeting deep-water crab are to notify their monthly catch statistics to the São Tomé and Príncipe Ministry responsible for fisheries at least once every quarter.

When entering or leaving the waters of São Tomé and Príncipe, vessels have to notify the Ministry. When departing, they should also notify the estimated catches. If a vessel is found fishing in the EEZ without having informed the authorities, it is regarded as a vessel without a licence.

Tuna seiners and surface longliners are to take an observer on board if requested by the São Tomé and Príncipe authorities. Deep-water fishing vessels targeting crab must systematically take an observer on board (how often that is, is not stated). The

observers are there to observe the fishing activities, verify the position of the vessel, perform biological sampling, note the fishing gear used, and verify the catch data recorded in the logbook. As a contribution to the cost of using observers on board, shipowners will have to pay EUR 10 per day to the Government of São Tomé and Príncipe; all other costs are borne by São Tomé and Príncipe authorities.

Before the protocol is renewed in 2005, the whole period of the agreement is to be evaluated, using indicators relating to catches and value of catches, and impacts on the number of jobs created and maintained, and the cost of the protocol compared to the catch value. There is no requirement to evaluate the social or environmental impact of the agreement.

#### 2.4 Key Differences From Previous Agreement

The 2002 agreement is very similar to the previous agreement. The key differences are highlighted in Table 1, and include changes to the total amount earmarked for targeted measures, which has decreased from 50 per cent to just over 40 per cent of the total. In addition, the percentage allocated to improving surveillance has been halved. At the same time, advance payments by shipowners have been increased and control procedures have been strengthened.

The experimental deep-water fishing for crab represents an increase in fishing access. Vessels previously operating in Moroccan waters are most likely to utilise these new fishing opportunities.

**Table 1. Comparison of the previous and the current agreement with São Tomé and Príncipe**

SÃO TOMÉ	Previous agreement	Current agreement
<b>Cost:</b>	<i>Total:</i> EUR 1.91 million <i>Targeted measures:</i> EUR 956,250 50 per cent <i>Yearly cost:</i> EUR 636,667 EUR 8,377 per vessel	<i>Total:</i> EEU 2.25 million <i>Targeted measures:</i> EUR 930,000 41 per cent <i>Yearly cost:</i> EUR 733,333 EUR 11,111 per vessel
<b>Fishing opportunities:</b>	Freezer tuna seiners: 36 vessels Pole-and-line tuna vessels: 7 Surface longliners: 33 vessels	Freezer tuna seiners: 36 vessels Pole-and-line tuna vessels: 2 Surface longliners: 25 vessels Deep-water crab vessels: 3; < 250 GRT for 12 month test period
<b>Fishing zones:</b>	Beyond twelve nautical miles from the coast of each island.	Beyond twelve nautical miles from the coast of each island; crab vessels authorised in waters from the 650 isobath. All fishing activity in the zone destined for joint exploitation by São Tomé and Nigeria is prohibited.

<b>Effort and catch limits:</b>	<p><b>Catch limits:</b> 8,500 tonnes tuna per year (if exceeded, financial compensation of EUR 50 per tonne shall be paid by the EC)</p> <p><b>Bycatch limits:</b> No limits Any bycatches should be made available to the authorities at fixed prices.</p> <p><b>Biological rest periods:</b> None</p>	<p><b>Catch limits:</b> 8,500 tonnes tuna per year (if exceeded, a financial compensation per tonne shall be paid by the EC) No catch limits for crabs</p> <p><b>Bycatch limits:</b> No limits Any bycatches should be made available to the São Tomé and Príncipe Directorate for fisheries, which will take charge of recovering and landing them.</p> <p><b>Biological rest periods:</b> None</p>
<b>Technical measures:</b>	ICCAT standards apply for tuna	ICCAT standards apply for tuna
<b>Value of catch:</b>	<p>Tuna for about EUR 2.274 million in 1999</p> <p>Tuna for about EUR 1.839 million in 2000</p>	<p>Maximum commercial value for tuna: EUR 12.75 million per year</p> <p>Crab fishery worth around EUR 5,000 per tonne.</p>

### 3 Fisheries Agreement with Angola

A new EC agreement with Angola covers the two-year period 3 August 2002 to 2 August 2004. It replaces an earlier two-year agreement that expired in May 2002. The agreement comes at a cost of EUR 31 millions to the EU, of which 36 per cent is targeted at supporting measures. In both cases, this is an increase from the previous agreement. In return, the EU gets access for approximately 85<sup>1</sup> EU vessels, mainly targeting tuna, shrimp, demersal fish and pelagic fisheries. The vessels operating under the agreement come from Spain, France, Portugal, Italy, Greece, the Netherlands and/or Ireland.

The new agreement is very similar to the previous one. Like the agreement with São Tomé and Príncipe, this agreement is an integral part of a network of agreements to fish tuna, which allows the Community fleet to follow migratory and straddling stocks in the Atlantic zone.

#### 3.1 Cost and Value of the Agreement

The total cost of the agreement is EUR 31 million, with EUR 11.05 million used for a range of targeted measures, including scientific programmes, quality control and marketing, development of the artisanal sector and fishing communities, and support to the Fisheries and Environment Ministry. EUR 1.15 million of the support measures have been earmarked for the development of small-scale fisheries and support for fishing communities, as Angola seeks to help people resettle in the aftermath of the war.

The average yearly EC cost per vessel is EUR 182,353. The financial contribution is, however, based only on the shrimp and demersal fishing opportunities. For tuna,

<sup>1</sup> This figure is an estimation based on an average vessel size of 150 GRT for demersal vessels.

vessel owners are charged EUR 25 for every tonne caught. Part of this is to be paid as an advance flat rate of EUR 4,500 a year for freezer tuna seiners (equivalent to fees for 180 tonnes) and EUR 2,500 a year for surface longliners (equivalent to fees for 100 tonnes). Final fees are then calculated the year after, based on the catch reported by each vessel. For all other vessels, an annual licence fee is payable, at a cost that ranges from EUR 3 per month/GT for pelagic vessels and EUR 52 per month/GRT for shrimp vessels, to EUR 220 per year/GRT for demersal vessels.

If the annual catch limit for shrimps of 5,000 tonnes is reached, the value of that catch would be about EUR 10 million<sup>2</sup>. The IFREMER report from 1999 provides an average value of production for the Angola agreement of EUR 24.42 million. This can be compared to the annual cost of the 1996-1999 agreement with Angola of EUR 13.9 million.

### **3.2 Management Measures Under the Agreement**

The agreement does not set any total catch limits, except for shrimp. Catches by EU shrimp vessels may not exceed 5,000 tonnes, including 30 per cent prawns and 70 per cent shrimps. Up to 22 shrimp vessels (6,550 GRT per month, as an annual average), an estimated 28<sup>3</sup> demersal vessels (4,200 GRT per month), 15 tuna freezer seiners, 18 surface longliners, and 2 pelagic vessels are provided access to Angolan waters. The tuna vessels have to endeavour to supply Angolan tuna canneries.

All fishing by EU vessels is to take place outside 12 nautical miles from the coast. For shrimp and demersal vessels there are some further restrictions, primarily related to the zone close to the Namibian EEZ. Mesh sizes are specified and the shrimp fishery may be subject to a period of biological rest, which would be notified at least three months in advance. During biological rest periods, shipowners pay no licence fee. Any bycatch taken by a shrimp vessel remains the property of the vessel owner, with a limit of 500 tonnes/year set for crab.

The pelagic licenses cover fishing of mackerel, sardinella and horse mackerel, with an authorised bycatch of 10 per cent. The pelagic fishery is experimental, and will be examined by a joint scientific committee after six months. It will then be decided whether there is scope for a continuation.

Fishing for gulper shark (*Centrophorus granulosus*) is prohibited under the agreement. Gulper shark is categorised as 'vulnerable' on the IUCN Red List, but is still targeted in many deep-water fisheries.

### **3.3 Monitoring and Review**

Angolan authorities are responsible for the inspection and monitoring of fishing activities, and may board EU vessels.

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<sup>2</sup> UK Fisheries Statistics Unit gives an average price of about EUR 2,000 per tonne liveweight shrimp for the year 2000.

<sup>3</sup> This figure is an estimation based on an average vessel size of 150 GRT for demersal vessels.

Tuna vessels must inform Angolan authorities of their position and catches every third day. They also have to keep a logbook, which is to be filled in even when no catch has been taken. This should be sent in within 45 days of the end of fishing. Shrimp and demersal vessels must report their geographical position daily together with the catches of the previous day. Monthly reports also have to be submitted, listing catches and quantities on board. Reports also have to be provided at the end of each fishing trip. Pelagic vessels submit daily catch reports to the Angolan authorities at the end of each fishing period. They must also present a monthly report of catches and the quantities on board. Vessels wishing to leave the EEZ of Angola must give eight days' notice and submit to customs check.

A scientific meeting will be held every year to monitor the state of the stocks. An observer may be required to be on board a vessel, but will normally not remain on board for more than one trip. The observers are to follow fishing activities, perform biological sampling, take note of gear used, verify catch data and report it once a week. Shipowners will contribute to the costs of the observer programme by paying EUR 15 (or EUR 30 for pelagic vessels) for each day an observer spends on board. Fishing activities are also to be monitored by satellite.

#### ***3.4 Key Differences From Previous Agreement***

The new agreement is very similar to its predecessor. The main change is that the amount going to measures targeted at the Angolan fisheries sector has increased from approximately EUR 8.05 million for the previous period to 11.05 million, and measures have been extended to include marketing and the development of aquaculture. There is an increase in GRT for the demersal fishery, but a reduction in the number of freezer and longline vessels targeting tuna. However, since neither the old or the new agreement contain any restrictions on the amount of tuna that can be taken, this reduction may not result in reduced pressure on stocks. The demersal possibilities available under the previous agreement were under-utilised, but there is good reason to believe that utilisation will increase in this period, with many vessels still displaced since the cessation of the Morocco agreement. This could put extra pressure on the demersal resources.

There is a slight change in the zone accessible to demersal vessels, from 8 nautical miles from the coast to 12, and an increase from 40 to 50mm in the mesh size for shrimp.

**Table 2. Comparison of the previous and the current agreement with Angola**

<b>ANGOLA</b>	<b>Previous agreement</b>	<b>Current agreement</b>
<b>Cost:</b>	<p><b>Total:</b> EUR 27.95 million</p> <p><b>Targeted measures:</b> EUR 8.05 million 29 per cent</p> <p><b>Yearly cost:</b> EUR 13.975 million EUR 151,902 per vessel</p>	<p><b>Total:</b> EUR 31 million</p> <p><b>Targeted measures:</b> EUR 11.05 million 36 per cent</p> <p><b>Yearly cost:</b> EUR 15.5 million EUR 182,353 per vessel</p>
<b>Fishing opportunities:</b>	<p>Shrimp vessels: max 22; 6,550 GRT/month</p> <p>Demersal vessels: 3,750 GRT/month</p> <p>Freezer tuna seiners: 18 vessels</p> <p>Surface longliners: 25 vessels</p> <p>Pelagic species: 2 vessels for 6 months</p>	<p>Shrimp vessels: max 22; 6,550 GRT/month</p> <p>Demersal vessels: 4,200 GRT/month</p> <p>Freezer tuna seiners: 15 vessels</p> <p>Surface longliners: 18 vessels</p> <p>Pelagic species: 2 vessels</p>
<b>Fishing zones:</b>	<p>Shrimp vessels: north of 12°20' prime beyond 12 nautical miles</p> <p>Tuna: all waters beyond 12nm</p> <p>Demersal trawlers: beyond 12nm and restricted northwards by 13°00' prime and southwards by a line 5 miles north of the EEZ of Namibia</p> <p>Other demersal vessels: beyond 8nm and restricted by a line 5 miles north of the EEZ of Namibia</p> <p>Vessels fishing for pelagic species: beyond 12nm</p>	<p>Shrimp vessels: north of 12°20' beyond 12 nautical miles</p> <p>Tuna: all waters beyond 12nm</p> <p>Demersal trawlers: beyond 12nm and restricted northwards by 13°00' prime and southwards by a line 5 miles north of the EEZ of Namibia</p> <p>Other demersal vessels: beyond 12nm and restricted by a line 5 miles north of the EEZ of Namibia</p> <p>Vessels fishing for pelagic species: beyond 12nm</p>
<b>Effort and catch limits:</b>	<p><b>Catch limits:</b> No catch limits, just a suggestion to land some tuna to tuna-canning factories at agreed prices.</p> <p><b>Bycatch limits:</b> Bycatches of shrimp vessels are the property of the shipowners. They may catch up to 500 tonnes of crab per year. No limits for other fisheries.</p> <p><b>Biological rest periods:</b> Shrimp fisheries may be subject to seasonal closure for recovery, in which case license fees will be reduced.</p>	<p><b>Catch limits:</b> Shrimp catches: max 5,000 tonnes/year; may include 30% prawns and 70% shrimps. For other segments, no catch limits, just a suggestion to land some of the tuna catch to supply Angolan tuna-canning factories at agreed prices.</p> <p><b>Bycatch limits:</b> Bycatches of shrimp vessels are the property of the shipowners. They may catch up to 500 tonnes of crab per year. No limits for other fisheries.</p> <p><b>Biological rest periods:</b> Shrimp fisheries may be subject to seasonal closure for recovery, in which case license fees will be reduced.</p>
<b>Technical measures:</b>	<p><b>Mesh sizes:</b> Shrimp fishing: 40mm until 1 March 2001; 50mm from that date onwards. Demersal fishing: 110mm Vessels fishing for pelagic species: mesh size laid down by Angolan law</p>	<p><b>Mesh sizes:</b> Shrimp fishing: 50mm Demersal fishing: 110mm Vessels fishing for pelagic species: 60mm</p>
<b>Value of catch:</b>		<p>Max 5,000 tonnes crawfish per year, possible value EUR 10 million. Other catches unknown.</p>



## **4 Fisheries Agreement with Senegal**

The current Senegal agreement covers a four-year period, from 1 July 2002 to 30 June 2006. The total cost to the EU budget is EUR 64 million, of which 19 per cent is earmarked for supporting measures. In return, approximately 125<sup>4</sup> EU vessels will have access to Senegalese waters. The vessels come from Spain, Portugal, France, Italy and Greece.

The agreement follows on a previous four-year agreement that expired in April 2001, and is the last in a long line of agreements with Senegal. There have been some improvements of management measures under this agreement, but it still does not contain any catch limits.

### **4.1 Cost and Value of the Agreement**

The total cost of the agreement for the EU is EUR 64 million, with EUR 12 million earmarked for supporting measures such as monitoring resources, inspection, safety and other support for small-scale fisheries, and audit of partnership schemes. The annual average cost of the agreement per vessel is EUR 128,000.

Benefiting vessel owners have to pay an annual licence fee for trawlers of between EUR 157 and EUR 246 per GRT in the first year, then increasing over the four-year period to EUR 169 and EUR 285 respectively. Pole-and-line tuna vessels pay no fee, but a charge of EUR 15 per tonne of fish caught. Freezer tuna seiners and surface longliners are required to pay a flat rate of EUR 3,000 and 2,000, respectively, equivalent to fees for 120 and 42 tonnes of fish. Final fees of EUR 25 per tonne for tuna seiners and EUR 48 per tonne for surface longliners will be calculated at the end of each calendar year, based on catch statements. Shipowners are not reimbursed if the final fee is lower than the flat rate.

The commercial value of tuna ranges from EUR 500 to 1,500 per tonne, depending on the species, and the average value of species fished by bottom-trawlers and longliners is EUR 5,000 to 10,000 per tonne. Since there are no catch limits specified under the agreement, nor any figures available on the actual catch, the commercial value of the current agreement cannot be calculated. The fees charged per tonne caught tuna, however, are only 2.5 to 4 per cent of the average commercial value. According to a report<sup>5</sup> by the Court of Auditors in 2001, the average value of the catches under the Senegal agreement in 1993-1997 was EUR 24 million, based on a catch of 24,729 tonnes (species unspecified). This can be compared with the annual cost of the previous agreement of EUR 12 million.

### **4.2 Management Measures Under the Agreement**

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<sup>4</sup> The number of vessels is based on an estimate of the number of vessels fishing under categories limited by GRT only.

<sup>5</sup> Court of Auditors *Special Report No 3/2001 concerning the Commission's management of the international fisheries agreements*, together with the Commission's replies. OJ 2001/C210/01, Volume 44, 27 July 2001.

The agreement does not limit the amount of catch that can be taken from Senegalese waters. It grants access to 78 tuna vessels, 1,500 GRT/quarter of the year for inshore demersal trawlers catching fish and cephalopods, an average of 3,000 GRT/month of fish trawlers fishing for deep-water demersal species and bottom longliners, and finally 3,500 GRT/month of freezer trawlers fishing crustaceans.

The fishing zones where EU vessels can operate have been reduced for greater protection of the Senegalese artisanal fleet. The regulation of fishing areas is much more detailed than under the previous agreement, but extensive inshore trawling is still allowed, for smaller trawlers (up to 250 GRT) just 6 nautical miles off the coast. The fishing grounds for ocean-going trawlers have increased. Given the absence of catch limits, the increased access to waters may lead to increased catches. No limits have been specified for surface longliners, and pole-and-line tuna vessels and tuna seiners are allowed to fish anywhere in waters under Senegalese jurisdiction.

Annual rest periods are specified for inshore trawlers and freezer trawlers (two months) and ocean-going fish trawlers (four months). Senegalese authorities may also adopt emergency measures applicable to all vessels. Bycatch limits are also established, ranging from 2 to 10 per cent. Inshore trawlers fishing for fish and cephalopods are allowed a bycatch of 7.5 per cent crustaceans. Ocean-going fish trawlers may catch up to 7 per cent crustaceans and 7 per cent cephalopods, while freezer trawlers fishing for crustaceans are allowed a 10 per cent bycatch of fish, a 10 per cent bycatch of cephalopods and a 2 per cent bycatch of lobster. If bycatches exceed the allowed percentages, penalties will be imposed and may entail permanent banning of the vessel. Some of the EC vessels are obliged to land part of their catches in Senegal, and the tuna vessels land an important part of their catches from the whole region in Dakar.

It is prohibited to catch certain species, including basking shark and several other shark species. Fishing for live bait must be authorised by the Senegalese authorities.

Minimum mesh sizes are set out as follows: 16mm for purse seines with live bait; 70mm for standard otter trawls; and 40mm for deep-sea demersal trawls. Doubling of the netting yarn in the cod end, often done to obstruct the selective effect of the mesh sizes, is prohibited. Biological rest periods for non-tuna fisheries have been agreed. For tuna vessels, the standards recommended by the ICCAT apply.

#### **4.3 *Monitoring and Review***

All vessels have to forward catch statements no later than one month after the fishing trip. The agreement requires that the EU and Senegal 'make every effort' to monitor the state of resources in the fishing zones, and joint annual scientific meetings are to be held. If a reduction in fishing opportunities is required, this is to be reflected in the level of compensation paid by the EC.

Technical inspections are to be undertaken once a year. If there are any changes in the tonnage of a vessel or of the fishing category, involving the use of different fishing gear, Community trawlers must undergo inspection in Dakar. The charges for this inspection are paid by the shipowner.

Trawlers and bottom longliners of 150 GRT or more and other vessels of 100 GRT or more must take observers designated by Senegal on board. Surface longliners may be requested to take an observer on board for the duration of the voyage. On freezer tuna seiners or tuna pole-and-line vessels fishing for bait, one of the Senegalese crew members will be designated observer.

#### ***4.4 Key Differences From Previous Agreement***

Although the new agreement is an improvement in several ways, such as the specified rest periods, it still contains no maximum catch or effort limits. There is also no indication as to what is considered to be sustainable levels of fish stocks, and when fishing opportunities would be reduced. Indeed, the clause stating that any reduction of fishing opportunities would lead to a reduction in EU payments does not offer an incentive to Senegal to respond to any deterioration in the state of resources.

There has been a considerable reduction of the fishing possibilities in the coastal demersal segment (30 per cent) and the pelagic segment has been excluded. In addition, one mesh size has been increased, allowed bycatch rates have been reduced and obligatory landings have increased. There will be observers on board EU vessels, and 50 per cent of the crew members must be Senegalese. The cost of licenses has increased as well.

The new way of allocating fishing possibilities for trawlers and longliners (in average tonnage per month) gives the EU greater flexibility and is likely to increase the utilisation of access, consequently increasing the pressure on the resources.

**Table 3. Comparison of the previous and the current agreement with Senegal**

<b>SENEGAL</b>	<b>Previous agreement</b>	<b>Current agreement</b>
<b>Cost:</b>	<p><i>Total:</i> EUR 48 million  <i>Targeted measures:</i>                      50 per cent committed, but no verification on implementation  <i>Yearly cost:</i>                      EUR 12 million                      EUR 81,081 per vessel</p>	<p><i>Total:</i> EUR 64 million  <i>Targeted measures:</i>                      EUR 12 million                      19 per cent  <i>Yearly cost:</i>                      EUR 16 million                      EUR 128,000 per vessel</p>
<b>Fishing opportunities:</b>	<p>41 tuna seiners                      23 surface longliners                      12 pole-and-line tuna vessels                      22 ocean-going freezer trawlers (at most 6 at a time)                      10,000 GRT for other trawlers and pelagic vessels (3 trawlers (331 GRT) for inshore trawling; 7 freezer trawlers (1,800 GRT) for inshore fishing; 11 ocean-going fish trawlers (3,750 GRT); 29 ocean-going freezer trawlers (4,119 GRT))</p>	<p>39 tuna seiners                      23 surface longliners                      16 pole-and-line tuna vessels                      8,000 GRT for bottom trawlers and longliners</p>
<b>Fishing zones:</b>	Regulated fishing zones for most fishing categories, based on vessel size.	Regulated fishing zones for most fishing categories, based on vessel size.
<b>Effort and catch limits:</b>	<p><i>Catch limits:</i>                      Maximum 25,000 tonnes deep-sea fish                      Total number of trawlers: 50</p> <p><i>Bycatch limits:</i>                      7.5% crustaceans for inshore trawlers                      9% crustaceans and 9% cephalopods for ocean-going fish trawlers                      12% fish and 12% cephalopods for deep-water trawlers targeting crustaceans                      3% demersal species for ocean-going freezer trawlers</p> <p><i>Biological rest periods:</i>                      Senegalese authorities may institute up to 2 months.</p>	<p><i>Catch limits:</i>                      No catch limits</p> <p><i>Bycatch limits:</i>                      7.5% crustaceans for inshore trawlers                      7% crustaceans and 7% cephalopods for ocean-going fish trawlers                      10% fish, 10% cephalopods and 2% lobster for deep-water trawlers targeting crustaceans</p> <p><i>Biological rest periods:</i>                      2 months for inshore trawlers and ocean-going freezer trawlers.                      4 months for ocean-going fish trawlers.</p>
<b>Technical measures:</b>	<p><i>Mesh sizes:</i>                      16mm mesh for purse seines                      70mm for otter trawls targeting fish or cephalopods                      60mm for otter trawls targeting deep-sea demersal species                      40mm for deep-sea trawls</p> <p>Doubling netting yarn in codend prohibited.</p> <p>ICCAT standards apply for tuna</p>	<p><i>Mesh sizes:</i>                      16mm mesh for purse seines                      70mm for otter trawls                      40mm for deep-sea demersal trawls</p> <p>Doubling netting yarn in codend prohibited.</p> <p>ICCAT standards apply for tuna.</p>
<b>Value of catch:</b>	<p>1997: EUR 9 million                      Cost of agreement: EUR 13 million</p>	<p>Tuna: EUR 500-1,500 per tonne                      Other fisheries: EUR 5,000-10,000 per tonne</p>

## **5 Fisheries Agreement with Mauritania**

A new agreement with Mauritania was agreed in 2001, covering a five-year period from 1 August 2001 to 31 July 2006. This is now the biggest and most expensive fisheries access agreement that the EC has with a third country, costing EUR 430 million and providing access for a total of 248 EU vessels, targeting a range of stocks including hake, crustaceans, cephalopods, tuna and crawfish. Vessels from the following countries are operating under this agreement: Spain, Italy, Portugal, France, Greece, the Netherlands, Germany and Ireland.

The agreement follows a previous five-year agreement that expired in 2001.

### **5.1 Cost and Value of the Agreement**

The total cost of the agreement is EUR 430 million, averaging out at EUR 346,774 per boat per year. EUR 19.75 million of this is earmarked for targeted measures, including research, fisheries surveillance, training, statistical work, management of licences, rescue services, attendance at international seminars and development of small-scale fisheries.

Vessel owners are required to pay EUR 29 per tonne for catches taken by the freezer tuna seiners and the pole-and-line segment, and EUR 19 per tonne for catches from pelagic freezer trawlers. A licence fee is also payable, based on tonnage per year in some cases, and a flat annual fee for tuna vessels.

Since a range of different stocks are fished under the Mauritania agreement, and different license and catch fees apply to different types of fisheries and vessels, it is particularly difficult to make any estimates of the value of the fish to be taken. The 2001 Court of Auditors report<sup>6</sup> does, however, give annual values for two of the years under the previous agreement. According to the report, the value of the catch in 1996 was EUR 109 million and the cost of the agreement EUR 62 million. In 1997, the value was EUR 150 million with a cost of EUR 54 million.

### **5.2 Management Measures Under The Agreement**

Under the agreement, access is given to 36 freezer tuna seiners; 31 pole-and-line vessels and surface longliners; 15 pelagic freezer trawlers; 6,000 GRT fishing for crustaceans other than crawfish; 8,500 GRT black hake trawlers and bottom longliners; 3,300 GRT fishing for demersal species other than black hake; 4,000 GRT demersal freezer-trawlers; 16,500 GRT fishing for cephalopods; and 200 GRT crawfish vessels. There are no limits on the total catch that can be taken.

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<sup>6</sup> Court of Auditors *Special Report No 3/2001 concerning the Commission's management of the international fisheries agreements*, together with the Commission's replies. OJ 2001/C210/01, Volume 44, 27 July 2001.

Access to different fishing areas is regulated and for most fisheries, with the exception of tuna and the pelagic freezer trawlers, a two-months biological recovery period applies. Minimum mesh sizes are set for most gear and allowed bycatch levels vary, depending on the fishing category, but no limit has been set for the cephalopod fishery. It is also stated that Contracting Parties shall look into the problem of discards and examine ways of making use of them, but how or when this will happen is not specified.

### **5.3 *Monitoring and Review***

Mauritanian authorities are responsible for inspection and control of fishing activities. On board the vessels, a daily record is to be kept of all catches, with details to be communicated to surveillance authorities at the end of each voyage. There are also to be inspections once a year and at the time of any changes to the fishing categories.

A system for observers on board vessels has been established. All vessels, except for tuna seiners, must take on board observers if designated by the Mauritanian authorities. Designated observers normally stay on board during the entire trip, but the time may be spread over several trips. They will observe the fishing activities of the vessel, verify its position, take biological samples, record gear and mesh sizes used and verify the entries in the fishing log.

### **5.4 *Key Differences From Previous Agreement***

The sum dedicated to supporting measures has increased significantly compared to the earlier agreement, under which only 2 per cent (EUR 5.2 million) was targeted at supporting measures.

The total number of vessels allowed to fish under the agreement has increased, compared to the previous agreement, although numbers have fallen in several categories. For the cephalopod fishery, there has been an increase of 31 per cent, apparently due to the departure of a number of Far East vessels that previously targeted these stocks. There has also been an increase in the number of vessels targeting tuna, from 57 to 67. The number of pelagic vessels has decreased, to better reflect the number of EU vessels actually involved in pelagic fisheries, and so have the tonnage limits for the demersal vessels.

For black hake and bottom longliners, the minimum mesh size has increased by 10mm, and some of the bycatch limits have been lowered. Annual licence fees have increased significantly, compared to fees under the earlier agreement.

**Table 4. Comparison of the previous and the current agreement with Mauritania**

<b>MAURITANIA</b>	<b>Previous agreement</b>	<b>Current agreement</b>
<b>Cost:</b>	<i>Total:</i> EUR 266.8 million <i>Targeted measures:</i> EUR 3 million 2 per cent <i>Yearly cost:</i> EUR 53.36 million EUR 215,161 per vessel	<i>Total:</i> EUR 430 million <i>Targeted measures:</i> EUR 19.75 million per year 23 per cent <i>Yearly cost:</i> EUR 86 million EUR 346,774 per vessel
<b>Fishing opportunities:</b>	Crustaceans (other than crawfish): 5,500 GRT Black hake trawlers and bottom longliners: 8,500 GRT Demersal vessels: 4,200 GRT Trawlers: 5,500 GRT Cephalopods: 12,600 GRT (average 42 vessels) Crawfish vessels: 300 GRT per year Freezer tuna seiners: 40 vessels per year Pole-and-line tuna vessels and surface longliners: 17 vessels per year Pelagic freezer trawlers: 22 vessels.	Crustaceans (other than crawfish): 6,000 GRT per year Black hake trawlers and bottom longliners: 8,500 GRT per year Demersal species other than black hake: 3,300 GRT per year Pelagic freezer-trawlers for demersal species: 4,000 GRT per year Cephalopods: 16,500 GRT (55 vessels) Crawfish vessels: 200 GRT per year Freezer tuna seiners: 36 vessels per year Pole-and-line tuna vessels and surface longliners: 31 vessels per year Pelagic freezer trawlers: 15 vessels
<b>Fishing zones:</b>	Regulated fishing zones for most fishing categories.	Regulated fishing zones. The restricted areas for most fishing categories have been increased.
<b>Effort and catch limits:</b>	<i>Catch limits:</i> No catch limits  <i>Bycatch limits:</i> Crustaceans other than crawfish: 20% fish & 15% cephalopods Black hake trawlers and bottom longliners: 35% fish; 0% cephalopods & crustaceans Vessels for demersal species other than hake: 0% cephalopods & crustaceans Trawlers for demersal species other than hake: 10% of which 5% shrimp & 5% cephalopods Cephalopods: none Crawfish vessels: 0% (pots) Freezer tuna seiners: 0% Pole-and-line tuna vessels and surface longliners: 0% Pelagic freezer trawlers: 3% fish and 0% cephalopods & crustaceans  <i>Biological rest periods:</i> 2 months for all fisheries except tuna fisheries and the pelagic freezer trawlers.	<i>Catch limits:</i> No catch limits  <i>Bycatch limits:</i> Crustaceans other than crawfish: 20% fish & 15% cephalopods Black hake trawlers and bottom longliners: 25% fish for trawlers and 50% fish for longliners; 0% cephalopods & crustaceans Demersal species other than black hake: 0% cephalopods & crustaceans Pelagic freezer-trawlers for demersal species: 10% of which 5% shrimp & 5% squid and cuttlefish; no octopus Cephalopods: none Crawfish vessels: 0% (pots) Freezer tuna seiners: 0% Pole-and-line tuna vessels and surface longliners: 0% Pelagic freezer trawlers: 3% fish and 0% cephalopods & crustaceans  <i>Biological rest periods:</i> 2 months for all fisheries except tuna fisheries and the pelagic freezer trawlers.

<b>Technical measures:</b>	<p><i>Mesh sizes:</i> Crustaceans other than crawfish: 50mm Black hake trawlers and bottom longliners: 60mm trawl net Vessels for demersal species other than hake: 120mm gillnet Trawlers for demersal species other than hake: 70mm Cephalopods: 70mm Freezer tuna seiners: ICCAT standard Pelagic freezer trawlers: 40mm</p> <p>Doubling twine or codend is prohibited.</p>	<p><i>Mesh sizes:</i> Crustaceans other than crawfish: 50mm Black hake trawlers and bottom longliners: 70mm trawl net Demersal species other than black hake: 120mm gillnet Pelagic freezer-trawlers for demersal species: 70mm Cephalopods: 70mm Freezer tuna seiners: ICCAT standard Pelagic freezer trawlers: 40mm</p> <p>Doubling twine or codend is prohibited.</p>
<b>Value of catch:</b>	<p>Estimated value of the catch in 1996: EUR 109 million; cost of agreement EUR 62 million. Estimated value of the catch in 1997: EUR 150 million; cost of agreement EUR 54 million.</p>	Unknown

## 6 Conclusions

This paper has sought to analyse new fisheries access agreements concluded between the EC and four West African countries. By assessing their provisions, and comparing these with earlier agreements, the aim was to examine whether and to what extent the EU was moving towards more sustainable agreements.

The following conclusions can be drawn from the analysis.

### 6.1 *Economic benefits*

It is clear that the cost of fisheries access agreements for the EC is on the increase. Based on the four recently renewed agreements, the total cost has increased by almost EUR 38.3 million per year. The cost of the agreement with Angola increased by 10.9 per cent, the cost of the Mauritania agreement by 61 per cent, the cost of the São Tomé and Príncipe agreement by 17 per cent, and the cost of the Senegal agreement by 33 per cent. Under some of these agreements, an increase in access to resources was secured, but in most cases this was not nearly equivalent to the cost increase.

An increase in costs is not necessarily contradictory to sustainable development. However, given the amount of EU funding targeted at these agreements, some social, economic and/or environmental benefits are to be reasonably expected. There is little information on catch statistics under the agreements, making it difficult to calculate the economic benefits generated for both parties, as well as the social benefits in the EU. In the third countries, reports from both independent scientists and a number of NGOs lead us to believe that the agreements more often have negative effects on the local communities than contribute to sustainable development in the region.

The figures suggest that for each vessel potentially benefiting from these agreements between EUR 11,111 (São Tomé and Príncipe) and EUR 346,774 (Mauritania) of EU



funding is allocated. By comparison to the license fees that vessel owners have to pay, the crab vessels fishing in São Tomé and Príncipe waters may each quarter year pay almost the equivalent (depending on vessel size) of the EU funding allocated under the agreement divided by the number of vessels allowed. An average shrimp vessel in Angolan waters may pay EUR 15,481 per month, while a trawler in Senegalese waters may pay EUR 40,000 a year. The differences are substantial, and it would be interesting to be able to compare these costs for the vessel owners with the actual commercial values of their catches. If the catch limit for tuna in São Tomé and Príncipe waters was reached, the official charge would be EUR 212,500. Using an average commercial value for tuna species of EUR 1,000 per tonne, the value of the same catch would be EUR 8.5 million – nearly 40 times the charge.

Agreements based on EU subsidies therefore appear to provide a significant benefit to commercial EU interests. But they are also creating a situation of unequal competition that is not beneficial to third country fleets.

## **6.2 *Social benefits***

The greatest single area of improvement compared to previous agreements relates to the amounts earmarked for targeted measures to support the development of the fishing sector and the management structure in the third country. The amounts range from 19 to 41 per cent of the total cost of the agreements; in the cases of Angola and Mauritania, the increases have been substantial.

The results of targeted measures in the past, as well as of the increased emphasis on them under the new agreements, are however difficult to assess since they are not reported and do not seem to a part of the evaluations that take place under some agreements.

Some strengthening of support for local communities, in addition to the targeted measures, is also noticeable. Requirements regarding employees on vessels and landings in local ports are very variable. The Senegal agreement clearly stands out in this respect, requiring 50 per cent of non-officer crew on trawlers and longliners to be Senegalese and significant local landings.

## **6.3 *Environmental improvements***

There have been some improvements of management measures and monitoring systems set out in the agreements. Some mesh sizes and permitted bycatch limits have been tightened, and access to waters is in many cases more restricted than before. In the agreements with Mauritania and Senegal, predetermined biological rest periods have been specified for most non-tuna fisheries. Several agreements also specify that it is illegal to catch certain shark species, in line with the FAO International Plan of Action on Sharks.

The lack of catch limits remains a key weakness of the agreements, and is in stark contrast to the EU's domestic fisheries management, where targeted stocks are increasingly covered by Total Allowable Catch limits (TACs). Of the four West

African agreements analysed, catch limits are only set in two specific instances: a maximum of 8,500 tonnes of tuna in São Tomé and Príncipe waters, and 5,000 tonnes of crawfish in Angolan waters. TACs have been heavily criticised if used on their own, but they do establish limits or thresholds that should not be exceeded.

Limits on total tonnage are the most common fleet management instrument under the agreements. It is, however, not possible to judge the appropriateness of this in the absence of reliable stock statistics and accessible information on actual catches taken under each agreement.

The use of observers on board to verify catches and the use of technical measures is also set to increase, with observer programmes described in all four agreements. This appears to be a positive development. On the whole, however, monitoring and inspection still appears to be patchy. Satellite monitoring is only required in one case. It is difficult to see how the regulations set down will be enforced, including correct charges per tonne.

Finally, and importantly, there is limited scope or provision for adjusting quotas or access over the period of the agreements. In the case of Senegal, if the fishery were to be restricted due to stock depletion, the amount of EU compensation would be adjusted downwards. This does not provide an incentive for rigorous management, and indeed fits rather uncomfortably with the EU's 'polluter pays' principle given the EU's longstanding involvement in these fisheries.

It is widely accepted that many fish stocks in West Africa are overfished and that people in these countries are dependent on fish as a food source. Since access under several of the agreements has in fact increased from the previous period, without sufficient knowledge of the available resources, few limitations on catches, and as yet apparently inadequate monitoring and control provisions, it seems questionable whether these new agreements are indeed moving towards sustainability.

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*Note to editors:*

The authors of the paper are Niki Sporrang, Research Fellow, Clare Coffey, Research Fellow, and Kate Bevins, Research Assistant, of the Institute for European Environmental Policy. Niki Sporrang heads the Institute's programme of work on Policy Measures for the Sustainable Management of Fisheries. The Institute for European Environmental Policy (IEEP) is an independent, non-profit institute, dedicated to the advancement of environmental policies in Europe.

Table 5. Overall analysis of the four agreements

AGREEMENT	ANGOLA	MAURITANIA	SÃO TOMÉ E PRÍNCIPE	SENEGAL
Cost per year (EUR)	15,500,000	86,000,000	733,333	16,000,000
Targeted measures (percentage of cost)	36	23	41	19
Vessels given access	approx. 85	approx. 248	66	approx. 125
Licence fee (EUR)	Pelagic vessels: 3/GT per month Shrimp vessels: 52/GRT per month Demersal vessels: 220/GRT per year	License fees for non-tuna vessels range from 36 to 447/GRT per year.	Crab vessels: 42/GRT per quarter year <b>Fixed annual fees:</b> Tuna seiners: 3,750 Pole-and-line: 625 Surface longliners: 1,000-1,375	Trawlers: 157 to 246 per GRT first year, then increasing
Charges for catch (EUR/per tonne)	Tuna: 25 <b>Flat-rate charged in advance:</b> 2,500 surface long liners pa 4,500 tuna seiners pa	Tuna vessels: 25 Pelagic freezer trawlers: 19 <b>Flat-rate charged in advance:</b> Freezer tuna seiners: 1,250 pa Pole-and-line + surface longliners: 2,500 pa	Tuna: 25 Penalty if quota is exceeded: 75	Pole and line tuna vessels: 15 Freezer tuna seiners: 25 Surface longliners: 48 <b>Flat-rate charged in advance:</b> Freezer tuna seiners: 3,000 pa Surface longliners: 2,000 pa
Management	5,000 tonnes crawfish	None	8,500 tonnes tuna	None
TAC	Yes	Yes	None	Yes
Mesh sizes	May be used for shrimp fishery	2 months, except for tuna vessels and pelagic trawlers	None	2-4 months specified for trawlers
Rest period	For shrimp fishery	Yes, for most	None	Yes
Bycatch limits	Fishing log & catch reports Tuna, shrimp and demersal vessels to report geographical location Satellite monitoring Observers may be designated	Fishing log + catch reports Yearly vessel inspections Observer system for all vessels	Fishing log & catch reports Observers may be used in both fisheries. Economic evaluation by 2005.	Catch reports Observers on all large vessels, except surface longliners on which observers may be requested. Yearly technical inspections of vessels Yearly scientific meeting to monitor state of stocks
Monitoring	Yearly scientific meeting to monitor state of stocks			