

# Holland Shellfish

Strip mining  
Mauritania's  
seafloor



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# Contents

<b>INTRODUCTION</b>	<b>3</b>
<b>INTERVIEW:</b> Yuba Ahmed	<b>5</b>
<b>DREDGING: THE WORST OF THE WORST</b>	<b>5</b>
<b>MAURITANIA: A BRIEF PROFILE</b>	<b>7</b>
<b>THE DEPLETION OF MAURITANIA'S MARINE ECOSYSTEM</b>	<b>8</b>
<b>VENUS SHELLFISH, MAERL, THE BANC D'ARGUIN AND THE MAURITANIAN MARINE ECOSYSTEM</b>	<b>12</b>
<b>INTERVIEW:</b> Diagne Ahmed	<b>15</b>
<b>EXPLOITATION OF VENUS SHELLFISH</b>	<b>15</b>
<b>INTERVIEW:</b> Ahmed Oudbiehy	<b>16</b>
<b>INTERVIEW:</b> Sid'Ahmed Ould Abeid	<b>17</b>
<b>GREENPEACE RECOMMENDATIONS</b>	<b>20</b>
<b>THE ECOSYSTEM APPROACH</b>	<b>22</b>
<b>REFERENCES</b>	<b>23</b>

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colophon

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# Introduction

In January 2005, the Dutch government banned cockle dredging in the Wadden Sea, following a September 2004<sup>1</sup> ruling by the European Court of Justice that associated practices violated the European Birds and Habitats Directives.

The ban on cockle dredging in the Wadden Sea was one of several recent measures taken around the world against bottom trawl fisheries, and for good reason.

Tracks of cockle dredging in the Wadden Sea.

Inherently unsustainable, bottom trawls are the most indiscriminate and destructive form of fishing gear currently widely practiced in the world. Trawls kill and maim all marine life in their path, destroy habitat and cause such severe damage that recovery may take decades, if it is possible at all.

Almost 1,500 scientists from 69 countries have signed a statement calling on governments and the United Nations to adopt a moratorium on high seas<sup>2</sup> bottom trawling. Several nations – Brazil, Chile, Germany, The Netherlands, and the United States, among others – have expressed support for regulating or ending bottom trawl fisheries in the high seas. Moreover, some governments, such as the United States, Kenya, Venezuela and New Zealand, have taken action to reduce or eliminate bottom trawling in their own waters. But scratch beneath the surface, and the picture becomes murkier, and the air smells of hypocrisy. Even as the Netherlands, for example, lobbies at the UN for an end to bottom trawling on the high seas, it operates the largest bottom trawl fishing fleet in the North Sea. The cockle dredging ban in the Wadden Sea was forced

upon the Dutch government by a ruling of the European Court; previously, the government had continued to hand out license after license to dredging companies despite overwhelming evidence that mechanical cockle dredging was wrecking the ecosystem of Holland's largest marine protected area. And having banned cockle dredging in its own waters, it is implicated in the very same kind of fishery being exported to the waters of a nation whose economy and ecology are ill-equipped to withstand such a move.

The Ministry of LNV (Agriculture, Nature and Food Quality, including Fisheries) has financed part of a test fishery in Mauritanian waters, conducted by the Dutch Institute for Fisheries, IMARES, on behalf of the company Holland Shellfish. Not only that, but deputies of the Dutch Parliament have referred to compensation funds paid to the companies that could no longer fish for cockles in the Wadden Sea as a "start-up" subsidy for transferring their operations to Mauritania. The Dutch government plans to provide support for the company to begin operating in Mauritania in the form of a Public Private Partnership (PPP) with the apparent aim of stimulating economic growth and poverty alleviation.

At the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, the Netherlands

<sup>1</sup> European Court of Justice ruling in Case C-127/02, Landelijke Vereniging tot Behoud van de Waddenzee v Staatssecretaris van Landbouw, Natuurbeheer en Visserij 7 September 2004.

<sup>2</sup> High Seas is a term that refers to waters that lie beyond the areas of national jurisdiction.



# Dredging: the worst of the worst

## Interview

Yuba Ahmed, "Mer Bleue", a Mauritanian NGO

"Well, on the subject of the Dutch company which fishes shellfish, we have heard about this company in international media and we know that this company has already been banned from Holland for this type of fishery on the basis of the damage it causes to the marine ecosystem and they come here to Mauritania to do the same thing but with the intention, as they claim, of doing something which would benefit the poor ...

As a start or as a type of experimental fishery they are going to start fishing 15,000 tonnes per year. As a type of experimental fishery. Although back home in Holland, the biggest tonnage they could get is 12,000 tonnes. So, here in the framework of this experimental fishery, they are going to start with 15 and then they will go up! Mer Bleue ... as well as the Small-scale Fishery Federation in Nouadhibou as well as the coastal populations who live from small-scale fishery on the coast are against giving the go ahead to Holland Shellfish, giving the agreement to fish on this shellfish bank ...

A large part of the Nouadhibou population live on octopus fishery and this octopus feeds mainly on this shellfish bank. So if we take away this shellfish bank, it means that we are going to wipe out this population of octopus. This will have an impact on the population who lives in Nouadhibou. The fishers who live from this octopus fishery will not have anything to fish anymore but the director... the president of the small-scale fishery federation gave us a figure last time, I think it's 7,000 pirogues which only fish octopus. And there are nearly 7 men on each pirogue. Each man is father to more than 10 children. This makes up a world which only lives from this fishery. So if we take away this shellfish bank, it means that these people will become poorer, which means that they will get poorer. These people will not be able to have any fish to feed their families."

**Even within the context of bottom trawling, dredges – according to a meta-analysis of more than 100 different scientific studies – cause the most severe ecosystem impacts of all (Kaiser, 2006; Kloff et al, 2007). Whereas most trawl gear mainly affects the surface of the seafloor and the life forms growing or living on it, dredges dig deep into the sediment and also affect organisms living in the seabed.**

Examination of the way in which dredges work highlights their destructive nature.

Mechanical dredges – which are normally four to five metres wide, and weigh up to 1,000 kilograms – consist of a large metal frame with a metal bag or cage. The frame and cutting bar ride along the seafloor, digging into the bottom, while the bags or cages drag along behind. The front of the frame may be fitted with a "tickler chain" which triggers organisms such as scallops to propel from the seafloor so they may be more easily captured.

In hydraulic dredging operations, a pump on the boat sends sea water through a large hose to a manifold on the front of the dredge. The manifold jets the water

into the sand, fluidizing it and making it easier for the dredge to pass through. Bivalves are either brought on deck by emptying the cage or pumped continuously onboard, as was the case with the type of cockle dredges that were used in the Dutch Wadden Sea.

agreed to develop PPPs in three west African nations – Ghana, Senegal, and Mauritania. In Mauritania, Holland Shellfish represents the "private" element of the partnership, an arrangement from which the company stands to benefit greatly, but which appears destined to provide a significant loss for the people, ecology and, ultimately, economy of the country.

The species of shellfish which companies plan to target in Mauritania's EEZ are the warty Venus shell *Venus verrucosa* and the African Venus shell *Venus rosalina*. The impacts of their exploitation will likely far outstrip even the damage done in the Wadden Sea. Mauritanian shellfish banks are practically pristine, and although their importance to the marine ecosystem is not fully understood, several studies suggest that, much like coral reefs, they form the basis of a very rich and diverse biological community. They are furthermore covered in maerl, a calcareous algae that is extremely slow-growing and hence highly vulnerable to environmental degradation (Hall-Spencer et al, 2003). Additionally, it is believed that the Mauritanian Venus shellfish banks are an essential element of the unique environmental conditions in the nearby ecosystem of the Banc d'Arguin National Park, a UNESCO World Heritage Site and the largest marine protected area in West Africa.

Additionally, dredging for the Venus shellfish is likely to have an impact on the vulnerable populations of guitar rays and on octopus stocks, which are of vital commercial interest to local fishers but which are already showing signs of over-exploitation. Both species feed on Venus shellfish and are particularly abundant in the area of the shellfish banks, including where Holland Shellfish plans to operate.

Establishment of a shellfish dredging fishery in Mauritanian waters would further decimate a marine environment that has already been crippled by years of industrial fishing by European fleets, and ultimately will most likely also completely destroy the local small-scale fisheries that still exist in the area. Not surprisingly, the prospect of Holland Shellfish's arrival is not being welcomed by many Mauritians. In a series of interviews conducted by Greenpeace, a cross-section of Mauritanian society – including the national artisanal fisheries federation, octopus fishermen, journalists and NGOs – made it clear that they regard the arrival of Holland Shellfish as a serious threat to, and potential cause of demise of, their own fisheries.





## Mauritania: a brief profile

**The Islamic Republic of Mauritania is a northern African country of 2.5 million people. It sits on the western edge of the Sahara Desert, bordering the Atlantic Ocean, between the territory of Western Sahara to the north and Senegal to the south. It is a little over three times the size of France.**

About half the population lives in extreme poverty, meaning that they survive on less than US\$1 a day. More than thirty percent of the children are malnourished and almost fifty percent of the adults are illiterate (UNDP Human Development Report 2007/2008). The vast majority of the country's people has traditionally been nomadic, but a series of droughts in the 1970s and 1980s triggered a shift to a more sedentary population. Shortly thereafter, a local fishing industry began to develop, with investment in fish processing plants, the purchase of vessels from Senegal, and the hiring of Senegalese fishermen. By 1993, just eight per cent lived a nomadic lifestyle, one-tenth of the historical level (World Bank, 1994). Today,

about one-third of the population lives in the capital, Nouakchott, on the coast. Until 2006, the economy was dominated by fishing and iron ore mining. Since then, the principal export has been oil from offshore fields which were discovered in 2001, and which are expected to continue producing for about 20 years. Most of those employed on the oil fields are expatriates, and both oil production and mining will end as soon as the resources are depleted. Unemployment in Mauritania is around 25 percent, and development of the local fisheries-based livelihoods is seen as having the greatest potential for long-term employment and economic growth.

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# The depletion of Mauritania's marine ecosystem

Mauritania is a dry, arid country, with only 0.2 percent of its area arable land, but its marine environment is rich and productive. Upwellings along its coast bring large amounts of nutrients into the ecosystem, creating a favorable environment for marine life. The region is particularly rich in demersal species such as groundfish, crustaceans and cephalopods, particularly octopus. Its waters also boast important migratory stocks of small pelagic fish such as sardines, and of tuna.



## Fishing in Mauritania

There are essentially three different types of fishing being conducted in Mauritanian waters today.

- *Traditional* fishing with wooden sailing boats carried out by the Imraguen, in the Banc d'Arguin Park, principally for mullet and meagres.
- *Artisanal* fishing by approximately 30,000 fishermen, using roughly 3,000 pirogues to fish for demersal species such as lobsters, shark, mullet, sardinella, soles, meagers, grouper, breams, and especially octopus. Octopus are caught with small black pots that are left on the sea floor; full pots are hauled onboard, and egg-laying females are released. Other species are mostly caught with gillnets. The artisanal fleet lands all its production in Mauritania and supplies both the domestic and export markets with fresh and frozen product.

Production from the artisanal sector was long assumed to be in the region of 20,000 metric tonnes a year, but is now widely considered to be closer to 80,000 tonnes a year.

- *Industrial* fishing by trawlers (including some of the biggest trawlers in the world) for squid and octopus, tuna, small pelagic species, crustaceans, hake, grouper, and breams. Whereas the other two groups involve solely local fishers, the trawl fleet comprises both local and foreign vessels and companies. The national fleet comprises approximately 150 industrial vessels, primarily of Chinese origin, flagged to Mauritania in the 1990s and still partly owned by Chinese nationals. An additional 200 or more industrial vessels are foreign, the vast majority of them European, and the bulk of those Spanish.

## Industrial fisheries and the growth of overfishing in Mauritanian waters

The entry into force of the United Nations Convention on the Law of the Sea (UNCLOS) in 1982 led to the introduction of 200-mile Exclusive Economic Zones (EEZs) in which countries could manage their own fishery resources. Because Mauritania did not have a fishing fleet capable of exploiting deeper waters within its EEZ, it sold many of its fishing rights to European and Asian countries which had already depleted fish stocks in their own waters (Miller, 2007). Some of the largest trawlers in the world, including trawlers operated by Dutch companies, now fish off Mauritania. Mauritania has entered into a number of Fisheries Partnership Agreements (FPAs) – with neighboring

Senegal for approximately 250 artisanal vessels; with Japan for temporary access for longline tuna vessels; and various agreements with Russia, Ukraine, and Bulgaria for access to offshore pelagic species. None of these agreements, however, has been as significant to Mauritania's offshore fisheries industry as those it has reached with the European Union (EU).

The first such agreement, granting European vessels access to Mauritanian waters in exchange for cash payments, was signed in 1987, and agreements have been renegotiated periodically ever since. The EU pays more for its Mauritania agreements than for any others; in return it is granted access to virtually all the country's commercial fish resources, from the highly valued demersal species on the continental shelf to the highly abundant offshore pelagic species. However, an internal review of past agreements



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between the EU and Mauritania, conducted by the EU Commission, painted a disturbing picture of their impact on Mauritanian ecology and economy.<sup>3</sup> The report acknowledged that EU fleets contribute little to either the Mauritanian domestic or export markets or to the upstream and down stream activities associated with fishing. Little of the European catch is landed in Mauritania; instead, most is frozen on board and shipped directly to the EU or other countries. Even those small amounts that are landed locally provide little benefit to the Mauritanian economy: It is very costly for Mauritanian processors to purchase products from European vessels, and even if they could afford to do so, the frozen products produced by the EU fleet don't provide them with any value-adding and economic opportunities. The report further observed that the EU fleets fail to contribute to the Mauritanian economy, and that they actually compete with and depress the local fishing industry, in direct contradiction to the stated intent of such fisheries access agreements as initiated under the United Nations Law of the Sea. Such agreements are

specifically intended to only provide access to stocks that are considered surplus to the coastal State; however, the report found that in many instances EU fleets were actually competing directly with Mauritanian fishing fleets, both on the fishing grounds and in export markets. While the EU has adopted a new approach to formulating and approving their agreements with non-EU states since this damning assessment, there is evidence that many of the original problems continue.

When EU fleets do compete with their Mauritanian counterparts, the Mauritanians are at a distinct disadvantage because of the comparative levels of fishing efficiency. The EU cephalopod fleet contains about one third of the vessels in the fishery, but accounts for 50 percent of the landings, while the shrimp fleet accounts for half the vessels and fishing effort but 70% of the landings. The situation has proven particularly dire for the cephalopod fishery, which remains by far the most significant for local fishermen. Cephalopod, and particularly octopus stocks came under severe pressure in the early 1990s, when the Mauritanian fleet increased greatly in capacity as a result of re-flagging of Chinese vessels. The Mauritanian government sought to address the problems this presented for artisanal fishers by reducing the size of the domestic industrial

<sup>3</sup> Under EU Council Regulation 1605/2002 the Commission is required to conduct *ex-ante* and *ex-post* evaluations of all programmes involving significant expenditures. The *ex-post* evaluation provides EU legislators with information on whether the previous expenditures met their stated objectives while the *ex-ante* assessments provide information as to whether the projected new expenditures are coherent with EU policy.

fleet; however, at the same time, foreign fleet capacity expanded, providing increased competition for a diminishing resource. Mauritanian fisheries scientists have been in agreement since 1993 that octopus stocks are being over-exploited; since 1998 they have been urging a significant reduction in fishing effort. As a result, Mauritania has become one of the few countries to revise its fisheries partnership agreements in line with scientific advice, reducing cephalopod licenses in recognition of the long-term danger to the stocks. But much damage has been done, and continues to be done. Of 17 key target species in Mauritanian waters for which conclusions could be reached based on the available data, one is considered to be “moderately exploited”; 10 are listed as “fully exploited”; three (the octopus, mullet, and guitar ray) are “over-exploited”; one is suffering from “reduced biomass”; one (the white grouper) is considered to be at “risk of extinction”; and one, the saw fish, is extinct.

Having contributed directly and significantly to the overexploitation of Mauritania's marine resources, the EU is now facing diminished economic returns and so has revised its fisheries agreements with the country. A new agreement, which will go into effect on August 1st 2008, provides for a cut back on fishing effort. That is the commitment on paper. However, the reality is somewhat different. With less money from EU fishing agreements, Mauritania will be forced to look elsewhere and make new bilateral and private deals, including of the sort which Holland Shellfish is trying to engineer. In the case of Holland Shellfish, the income derived from the fishery – and indeed the shellfish themselves – will still be destined for the EU market. As a result, Europe will continue to reap the benefits of exploiting Mauritania's ecosystem, but at a lower cost to the EU as an institution. For the people, ecology, and economy of Mauritania, however, the cost will remain. It is in this context – a marine environment that, in the space of just two decades, has been ravaged by overfishing, in no small part due to EU policies and fisheries conducted by EU member states. – that the Dutch shellfish industry, with the support of the Dutch government, plans to introduce the most destructive type of fishery of all. That would not only undermine Mauritania's efforts to manage its marine resources, it would almost certainly plunge a final, fatal dagger into the very heart of the marine ecosystem.



# Venus shellfish, maerl, the Banc d'Arguin and the Mauritanian marine ecosystem



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## Venus shellfish

There are two different species of Venus shellfish in Mauritanian waters: *Venus verrucosa*, more commonly known as the warty Venus shell; and *Venus rosalina*, also known as the African Venus shell. Both species live burrowed in the sand, as a consequence of which dredging is the only commercially-viable means of fishing for them.

*Venus verrucosa*'s presence in Mauritania is limited to sandy and muddy sediments in waters between 3 and 10 metres deep in the Bay of Levrier. The species' total biomass in the region has been estimated at 173,000 tonnes.

In contrast, the African Venus shell *Venus rosalina* forms a vast bank of approximately 350 square

kilometers, south of Cap Blanc and west of the Banc d'Arguin national park. Its biomass has been estimated at between 1.3 and 2.8 million tonnes, with an average density of 50 shellfish per square metre (Diop, 1988). It lives burrowed in fine to large sand grains at a water depth between 10 and 30 metres.

Much like coral reefs, shellfish banks provide wave-resistant shelter for myriad organisms. Many juvenile fish find refuge from larger predators in them, and as a result shellfish banks form nurseries for many species. Samples that have been taken in the Mauritanian *Venus Rosalina* banks suggest a very high level of biodiversity.



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## Maerl beds

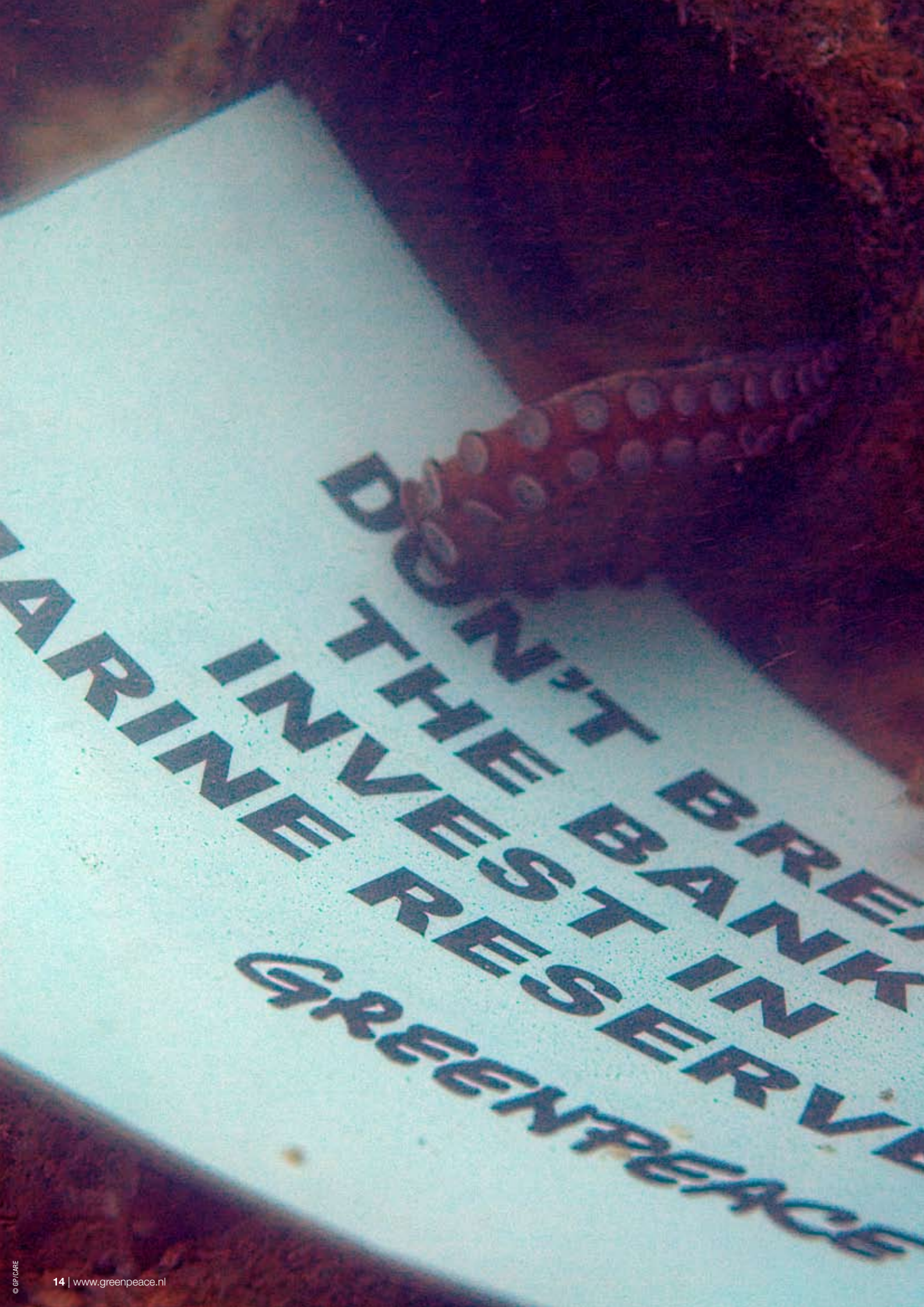
Among the species to be found in the Mauritanian shellfish banks are maerl, calcareous algae which form three-dimensional, coral-like structures. Maerl beds have been described as being essentially analogous to kelp forests or seagrass beds, in that they are complex habitats, formed by algae, which support a very rich biodiversity. They grow extremely slowly, so much so that it may take centuries for maerl deposits to develop. As a result, noted one researcher, maerl beds "are considered to be a non-renewable resource." That same researcher described maerl beds as "fragile habitats that support many rare, unusual and scientifically interesting species and as such are of particular international conservation interest." (Hall–Spencer et al, 2003). According to IMARES, the Dutch research institute advising Mauritania on the proposed test fishery, a large part of the shellfish bank is covered by maerl.

Ironically, maerl beds are protected by law under the EU Habitats Directive. However the protection does not extend to areas outside the European Union, even if EU fishing fleets operate in these waters.

## Banc d'Arguin

The Banc d'Arguin national park extends along roughly 40% of the country's coastline, and contains sand dunes, coastal swamps, small islands, and shallow coastal waters covered with extensive sea grass beds. The park is considered so significant that it was added to the UNESCO World Heritage list in 1989. The waters are host to the critically endangered monk seal, several species of sea turtles, sharks, whales, and dolphins. Millions of migratory birds visit the area, and large breeding colonies of cormorants, pelicans, herons, spoonbills, flamingoes, gulls, and terns are found on the islands. In many cases, these are the same birds that migrate to the Netherlands and which are protected in the Wadden Sea. Indeed, it was the impact on those very same birds that contributed to the introduction of the ban on cockle dredging in the Wadden Sea.





## Interview

Diagne Ahmed, Department for Living Resources and the Environment, Mauritanian Institute for Oceanographic Research and Fisheries (IMROP)

"Octopus has been fished a lot. We can talk of overexploitation. As far as pelagic species, especially sardinella, there is a full exploitation of this resource.

Other fisheries? Perhaps we could mention another type of emerging fishery. It is clam fishing. This has not yet started in Mauritania. We can not say too much on that type of fishery because it hasn't started yet but all other fisheries in any case need a reduction of fishing effort.

I could always refer to the committee which was in charge of conducting a study on how to fish clams in Mauritania because this type of fishery could have damaging effects on some ecosystems and it can also create a conflict between the octopus fishermen and the fishermen who exploit this type of species because they are supposed to fish in the same area where octopus as well as shellfish are fished...and to add something else. Why do I talk about the damages to the ecosystem? As we all know marine ecosystems are extremely fragile and the fishing gear used for clams is dredging, which means that they scrape out the seabed and this can cause a lot of damages for the species living in these ecosystems."

# Exploitation of Venus shellfish

**The Mauritanian scientific research institute, IMROP, has calculated an allowable total annual catch for *Venus verrucosa* of between 350 and 1,400 tonnes, and for *Venus rosalina* of 300,000 tonnes. Both estimates were derived from a single-species approach (the Beverton - Holt model), which researchers widely acknowledge to be highly inappropriate for a non-selective fishing method like bottom dredging in a biologically diverse ecosystem, as it fails to take into account the hugely indiscriminate nature of the fishing gear and its impacts on other species and the marine ecosystem as a whole.**

Furthermore, such estimates appear to be based on outdated and overly optimistic assessments of the size of the shellfish banks. Greenpeace has conducted two field missions to document the bank, one in November 2007 and one in April 2008. The first was based on a survey that was carried out in the late 1980s (Diop, 1988), and included a number of dives on what that survey had stated were "hot spots" of Venus shells. However, although footage shot on the Greenpeace expedition showed a number of shell fragments, not a single live Venus shell could be found.

The absence of Venus shellfish, the dominance of scavenging hermit crabs and the absence of Chama oysters (which should be easily visible and make up about 30% of the shellfish bank according to Diop, 1988),

suggests that the sea bottom has already been destroyed by non-selective bottom trawling. This could be a result of legal or illegal industrial fishing with bottom trawl gear on octopus in the artisanal fishing zone.

The co-ordinates used for the second Greenpeace mission were based on a map produced by IMROP (Wagué) in 2007. Unfortunately the sites visited were again devoid of any shellfish, while damage to the seafloor suggested that trawling has taken place. From our qualitative assessment it can be concluded that there is no recent accurate data of the current size of the Venus shell bank. Understanding the true size of the bank is paramount for any decision making on sustainable exploitation.

**Octopus holding a Greenpeace banner.**



## Possible impacts of Venus shellfish exploitation

Even assuming an accurate assessment of the size of the Venus shellfish banks, and a total allowable catch that takes into account the realities of a fishery on the entire ecosystem, the impacts of a dredging operation on the Mauritanian marine ecosystem are likely to be severe and reversible only over long periods. Any attempt to predict those impacts would inevitably be speculative, but based on previous observations of dredging operations and the available knowledge of the Mauritanian marine ecosystem, a degree of informed speculation is possible.

Given the indiscriminate nature of the fishing gear, it is highly probable that not only Venus shellfish, but all plants and animals in the path of a dredge will be damaged, hurt, killed, or maimed, following contact with the gear on the seafloor, after being towed or sucked onboard, or as a result of habitat devastation. As in all other dredge operations, the survival rate of most fish brought onboard will be close to zero. Species richness may well be diminished. Should maerl beds become severely damaged then, even under the most optimistic scenario, it would take centuries for such a habitat to become re-established. Maerl habitats are considered vitally important as fish breeding grounds. Perhaps as a result, they are protected by European Union law under the EU Habitat Directive.

Octopus fishing, on which 30,000 people depend directly for their livelihoods, might well be adversely affected by any dredging. Octopus feed on Venus shellfish, and a declining shellfish stock would in all probability place further pressure on cephalopod and octopus populations that are already fully- or over-exploited. Additionally, the pots which local fishermen leave on the seafloor to catch octopus would be destroyed by passing dredge gear.

Bottom dredging and trawling could also cause an increase in sediment load in the surface waters reaching the seagrass beds in the Banc d'Arguin national park. Declines in, or the disappearance of, the shellfish populations may lead to an increase in plankton which the Venus shells would otherwise eat. Increased plankton concentrations will reduce sunlight penetration thereby inhibiting the growth of the seagrass beds of the Banc d'Arguin, which form the very basis of this extraordinary ecosystem. And as it is likely that many of the rays and sharks that occur in the Banc d'Arguin depend on the Venus stocks sometime in their lifecycle, damaging that ecosystem could lead to a cascade of consequences for those species, as well.

In addition, with fish species outside the park increasingly depleted, and with local fishermen decreasingly able to compete with foreign industrial fleets, illegal fishing inside the park's boundaries may increase. Pressure may mount from local communities adversely affected by the collapse of fisheries elsewhere for the waters of the park to be opened to fishing.

## Interview

Ahmed Oudbiehy, Fisher

"I do not wish our government to sign an agreement which would not have been reflected upon and studied carefully. This is a piece of advice for our government. So now, another thing. Our government, the organisations which have interests in fishing... the bureaucrats...they should ask Mauritanian people on the ground. They should take their points of view into consideration. They have a lot of experience, they may not be intellectuals but they have a lot of experience. They are technicians, if you wish. They are technicians of this sector. They should not be neglected and all organisations, all the organisations which come from outside and go through our government, they need to go through us, technicians. If they go through us first, they should go through us last so that we can give our point of view."

## Interview

Sid'Ahmed Ould Abeid, President of the Small-Scale Fishery Section of the National Fishery Federation; Spokesperson, West African Forum of Small-Scale Fishers

"The problem we're facing and for us it is a great issue, it's the fisheries agreement [...] with the European Union. This fisheries agreement is extremely detrimental to small-scale fisheries, especially as far as cephalopods are concerned.

We have a small-scale Mauritanian fisheries fleet of fishermen who currently can practice and do practice this type of fishery and who are facing competition from the European Union fisheries. We don't get any grants and even on the markets they are competing with us in an unfair manner ...

Each time we catch some octopus, we find that the pot is also full of clams. So the octopus take the clams, they bring them to the pot and feed on them. This is its food. The danger when we wish to extract these clams is that we will kill the octopus because we take away its food. What can be saved goes elsewhere and the area will be destroyed for small-scale fishery. Therefore we are asking for the fishing of clams not to take place in the small-scale fishery area as Mauritanian law bans trawling and dredging in the area exclusively reserved to small-scale fishery. We wish for the exploitation not to take place and when exploitation does take place, it needs to be done with a type of small-scale fishery which will have a sustainable exploitation and favour the poor and not the rich.

So that's what we are currently telling the State. We are saying to the State that the exploitation of clams should not take place. When it does take place, it needs to be done in a small-scale fashion and in favour of poor people. We have already taken part in a workshop which was organised in Nouadhibou by the Ministry of Fisheries and the Dutch wanted to fish, they were there and they said they wanted to fish so we gave some recommendations and said that they should not fish. We said we should first of all experiment with small-scale type fisheries and leave it to the small-scale fisheries and not to industrial type fisheries. We are wanting for results and we don't want to have any fishing like that because any industrial type fishing means the death of thousands of Mauritanian families, this means the death of small-scale octopus fishery ...

We are telling them that this means killing thousands of people who have nothing else in their lives but to go to sea and catch some fish to sell it. If there was an industrial type of fishery, this would mean the death of thousand of Mauritanian families. They would be responsible for that and history would judge them."

## Not for the people, not experimental

There is no small irony to the fact that the Venus shellfish fishery would be made possible by a Public Private Partnership (PPP), because PPPs are also supposed to benefit People, the Planet, and Profit.

According to the Dutch Ministry of LNV, a PPP should consider the following:

- The proposed activity should be accepted by civil society;
- There should be no lasting negative effects on the ecosystem, or habitat of the target species;
- There should be transparency in processing and market aims;
- A fishery cannot compromise natural resources for future generations;
- Any activity cannot simply be an independent profit making enterprise but has to have socio-economic and cultural benefits.

**People and the planet may suffer, but for Holland Shellfish at least, profit certainly will not.**

It is clear that Holland Shellfish's proposed fishery fails every single one of these guidelines, as it does the overall intent of People, Planet and Profit. The people of Mauritania will not benefit: as with existing EU fisheries, activities will be conducted offshore with foreign personnel, generating little employment on land, and in the process depriving Mauritians of what income they are able to generate from fishing. As for the planet: as has been shown clearly and repeatedly – including in the Wadden Sea – bottom trawling in general, and dredging in particular, is inherently bad for the planet.

Profit, on the other hand, is a different matter.

The average price of a kilo of Venus shellfish on the French market is 12 Euros. During the festive season (Christmas and the New Year), it can reach a peak of 40 Euros. Thus 15,000 tonnes of “experimental” harvest could be worth 180 million Euros with a peak value of 600 million Euros during the winter holidays (OFIMER).

Fifteen thousand tonnes is more than the maximum amount of cockles ever dredged in a single year in the Netherlands. During the peak year of commercial fishing on the common cockle in the Wadden Sea, the take was no more than 12,000 tonnes. By comparison the yearly commercial exploitation of Venus shellfish in France rarely exceeds 1,000 tonnes. (Kloff *et al*, 2007). Zones for experimental fishing are generally up to 50 times smaller than the one encompassed by the proposed Holland Shellfish fishery in Mauritania. Contrary to what Holland Shellfish may claim, the fishery hardly qualifies as experimental. It is a commercial fishery, pure and simple, and a sizeable and potentially lucrative one at that.

People and the planet may suffer, but for Holland Shellfish at least, profit certainly will not.



# Greenpeace recommendations

**Since the advent of Fisheries Access Agreements some 30 years ago, unfair terms of trade, in combination with weak developing country fisheries management and enforcement capacity, has resulted in excessive overfishing of coastal State waters by foreign fishing fleets, in Mauritania and elsewhere.**

This overfishing has created real socio-economic harm and ecological damage that translates into long-term costs for developing country coastal States. It is a pattern that would be repeated with the commencement of the proposed Venus shellfish dredging fishery in Mauritanian waters. The proposed Holland Shellfish dredging fishery poses significant risks to the ecology and economy of Mauritania, and runs counter to the wishes of Mauritanian stakeholders. It is a commercial fishery, not an experimental one, that would be on a larger scale even than the now-banned cockle dredging fishery in the Wadden Sea.



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## **1 The Netherlands should ensure that the proposal as tabled is not allowed to proceed.**

They should instead provide aid to Mauritania to help restore that country's marine ecosystem. The Dutch Government and other distant water fishing partners in the region must take leadership and responsibility for the long-term damage done to the region's marine resources. They must take genuine and meaningful steps to help rebuild the marine environment and fisheries of Mauritania and the region as a whole, on a sustainable and equitable basis so that local fisheries can truly help to grow coastal State economies and build long-term economic, social, political and cultural stability. In this context, the European Union institutions should also enforce sustainability objectives and ensure the application of the precautionary principle and ecosystem-based fisheries management in all the fisheries in which Member State vessels, companies or citizens are involved.

## **2 The Holland Shellfish fishery clearly does not meet the criteria for a PPP.**

The proposed experimental fishery is commercial fishing in disguise. The Mauritanian government should reject the fishery and choose the long-term sustainability of its country's resources over short-term gain. The government should engage with local stakeholders to identify partnerships that can truly benefit people and planet, as well as profit for local enterprises in, and hence the economy of, Mauritania. In so doing, Mauritania would become a leading example for other countries in the region, underlining the desirability of rejecting, and demonstrating the ability to reject, unfair fisheries access agreements.

## **3 Maerl habitats are protected in the EU by law.**

The Netherlands is bound by this law and has a moral duty to apply and respect this standard of protection also in areas outside the EU.

## **4 Both the Netherlands and Mauritania should honour their commitments under UNCLOS (United Nations Convention on the Law of the Sea).**

Article 62 clearly states that economic dislocation should be minimised in States whose nationals habitually fished in their Exclusive Economic Zones. The proposed fishery, even as an experimental one, will compromise local fishing fleets and thus the local economy. Furthermore, any consideration to exploit shellfish in Mauritania requires at a minimum that a prior independent study is carried out, looking at the environmental, social and cultural impacts of the fishery in the long run, and that the findings of such a study are incorporated into any plan to move forward. Such a study should apply the precautionary principle and ecosystem approach to determine if a bottom dredging fishery can be undertaken in a sustainable manner, also in areas outside the EU.

## **5 The marine environment of Mauritania is in urgent need of recovery.**

The government has already set a precedent by creating West Africa's largest Marine Protected Area. The government should continue to show leadership by further establishing, implementing and enforcing a network of fully protected no-take marine reserves across its EEZ to restore and protect what is left of its once abundant marine life. This network should be designated in full participation with local small-scale fisheries so that the livelihoods of coastal fishermen are not unnecessarily compromised.

## **6 Mauritania's closeness to Europe has proven detrimental to its marine life, people and livelihoods thus far.**

The government should now move to take the initiative and turn the tide by rejecting all unfair foreign access agreements within its waters, ensuring that the basic nutritional needs of the people of Mauritania are met first, and entering into small-scale partnerships which provide training, equipment and facilities for Mauritanian-owned and -run small-scale fishing and processing operations that add value and build the export sector in a sustainable and equitable manner.



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## The ecosystem approach – protecting marine life in all its forms

Most fisheries management measures focus on single species and do not consider the role of the species in the wider ecosystem. In contrast, the ecosystem approach to the management of activities in the marine environment requires consideration of whole ecosystems at a scale that ensures that ecosystem integrity is maintained. It recognises the complex interactions between species, and so is underpinned by principles of community biology and ecology.

Given the scientific uncertainty and unpredictability of marine ecosystems, it is vital that this approach is applied in a precautionary manner. What this means in practice is that a lack of knowledge does not excuse decision makers from taking action, but rather that they err on the side of caution.

In November 2006, an international group of ecologists and economists, led by Professor Boris Worm of Dalhousie University, published a study in

Science that brought the extent of the degradation of our marine ecosystems into stark relief. Looking at marine biodiversity on a global scale, the study showed that loss of marine biodiversity is drastically reducing the ocean's ability to produce seafood, resist diseases, filter pollutants and rebound from stresses such as over-fishing and climate change. The team's projection that all commercial and seafood species are on the brink of collapse was shocking enough to make news headlines across the world. However, the study was not all doom and gloom, for it also showed that closing areas to fishing by establishing marine reserves increases the abundance, productivity and diversity of species found in the reserves. This applies to fish at least as much as it applies to other species, which means that marine reserves boost fish stocks and ultimately the catch per unit effort in waters adjacent to the reserves. This should be a wake-up call to us all. If we take action now, the oceans possess the potential to rebound; if we do nothing, we will witness further fisheries collapses until there is nothing left to fish.

In order to ensure sufficient protection across the whole range of marine ecosystems it will be necessary to establish a representative network of fully protected marine reserves. To be effective, such networks must therefore span large geographic distances and be of sufficient scale to protect against catastrophes and ensure the long-term health and stability of marine ecosystems. In order to reverse the current decline in the health of our oceans, Greenpeace is calling for 40% of the oceans to be protected by marine reserves.

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