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Trading Away Our Oceans

Why trade liberalization of fisheries must be abandoned



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Trading Away Our Oceans

Why trade liberalization of fisheries must be abandoned



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Trading Away Our Oceans - report

Why trade liberalization of fisheries must be abandoned

"The Earth and the fullness of it belongs to every generation, and the preceding one can have no right to bind it up from posterity." - Adam Smith, 1766 *Lecture on Jurisprudence*





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Trading Away Our Oceans

content

Executive Summary	7
Introduction	9
Counting paper fish	11
Tracking wild capture production	11
Global discard volumes	12
BOX 1: The reliability of Chinese production statistics	14
The health of commercial fish stocks	16
The ecological impact of over-fishing	17
World Trade in fish and fish products	19
Exports	19
Import values	21
Trade flows	21
BOX 2: In a supermarket near you: Norwegian cod "Product of China"	23
The WTO and the Doha Round	25
The main issues in the NAMA negotiations	26
- Tariff reduction through "harmonization"	26
- Eliminating binding overhang or "the water in the tariffs"	26
- Binding one hundred percent of tariffs	26
- Special and differential treatment for developing countries	26
- Sectoral initiatives	27
- Preference erosion	27
BOX 3: Preference erosion: its impacts on canned tuna	29
Other Doha Round negotiations affecting fisheries	30
Non tariff barriers	30
Tariff levels on fish and fish products	32
Tariff rates in the Big Three	32
- EU tariff rates	33
- US tariff rates	33
- Japanese tariff rates	34
The NAMA Sectoral initiative on Fish and Fish Products	34
The different interests behind the fish sectoral	34
The objective of the fish sectoral	36
Assessing the sectoral process	37
BOX 4: What's next?	38
The theoretical impact of trade liberalization	40
Tariff liberalization's impact on wild capture fisheries	40
Tariff liberalization's impact on aquaculture	42
BOX 5: One person's "trash" is another person's dinner	42
BOX 6: Thailand's environment: the long-term loser!	44
The lived experience of liberalizations past	47
Mauritania: a case study in impoverishing growth	47
BOX 7: Feeling the NAMA squeeze in the Philippines	50
Argentina: a case study in the externalization of costs	51
Senegal: a case study in conflicting demands	54
Conclusion	58
References	62
List of Acronyms	68
Appendix I	70
Selected Greenpeace papers and press releases on the Doha Round 2003-2006	70



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Executive Summary

Under the World Trade Organization's currently suspended Doha Development Round negotiations, tariffs on fish and fish products are to be significantly reduced and perhaps even eliminated. The stated rationale for this undertaking is that trade in fish is both important to developing countries and that they would benefit from further liberalization.

In this paper, Greenpeace draws on published studies by the Organization for Economic Cooperation and Development (OECD), the European Union and the United Nations Environment Programme (UNEP) to show that further liberalization of trade in fish and fish products, particularly through the reduction/elimination of tariffs, will only bring lasting economic benefits to a handful of developed, fish-exporting countries that have *relatively* well-established domestic fisheries management regimes. These countries should, *if* they have the political will, be able to withstand the pressure to increase supply beyond sustainable levels that tariff reduction/elimination will undoubtedly unleash. But they will be the only ones.

Outside of this handful of beneficiary countries no other countries will benefit because the minimum conditions for mutual benefit – effective fisheries management at the exporting and importing end - simply do not exist.

UNEP case studies of the impacts of past fish trade liberalization in three countries (Mauritania, Argentina and Senegal) demonstrate that market liberalization in fish is particularly harmful for the economies, societies and conservation of stocks of developing countries with weak fisheries management regimes, a situation which is sadly characteristic of most of the world.

Greenpeace concludes that further fish trade liberalization will only worsen the "impoverishing growth" that developing countries suffered through the 1980s and 1990s as a result of World Bank and International Monetary Fund (IMF) imposed structural adjustment programs, and will accelerate already severe rates of fisheries resource depletion. While tariff

reductions for fish and fish products may well bring short-term boosts in some developing countries export earnings, as the last vestiges of their high-value marine resources are scooped up for export, the margins for doing so are very tight. The current rates of exploitation on most high-value export stocks are already far beyond sustainable levels.

The most likely scenario under current conditions is that developing countries will deplete what is left of their wildfish biomass, increasing the already considerable loss of both genetic and biological diversity in the process and erode the very basis of sustainable use: a healthy and productive marine ecosystem. For consumers in the developing world, fish prices will rise as more of the national fishing effort is diverted to fishing for export species, leading to less supply of locally fished and consumed pelagics. Globally, liberalization will also increase pressure to divert food from the plates of the third world's poor to fishmeal processing in order to supply unsustainable forms of salmon and shrimp aquaculture that will get a boost from tariff liberalization.

In geographic terms there will likely be a shift in production especially in canned tuna to South-East Asia from African, Caribbean and Pacific countries (ACP countries). African countries in particular will be affected by preference erosion as they lose the trade preferences associated with the Lomé and Cotonou agreements between the EU and ACP countries. Under this scenario, Bangkok is expected to become the uncontested hub of the international canned tuna trade.

Even importing OECD countries that benefit from the inadequate, lax or non-existent resource management regimes in developing countries could see further liberalization negatively impact their own fisheries. Faced with the competition from cheaper imports their domestic fleets are likely to respond by fishing harder on already depleted or threatened stocks unless they can shift their surplus capital (vessels) and labor to other uses; which is highly unlikely given past experience.

While consumers in developed countries should see some short-term economic benefits in terms of less expensive seafood, these will be short-lived because further liberalization will only accelerate resource depletion through continued over-fishing - especially in developing countries - leading to higher prices in the medium to long term as global supplies diminish.

The paper concludes that the international legal responsibility for countries to police themselves and to ensure that their fleets and corporations fish responsibly are already spelled out in numerous international legal instruments that are largely ignored. These include the *UN Fish Stocks Agreement*, the *FAO Code of Conduct for Responsible Fisheries*, and the *World Summit on Sustainable Development's Johannesburg Plan of Implementation*. At the very least, until

such time as these instruments are universally adhered to and enforced, it would be irresponsible for the members of the WTO to engage in further liberalization on fish and fish products. For these reasons, Greenpeace believes the Non Agricultural Market Access (NAMA) negotiations must remain suspended, and tariff liberalization for fisheries removed from bilateral and regional trade agreements.

Instead of pursuing further liberalization, states should ensure existing international law is implemented fully and establish new rules to ensure sustainable and equitable management of the high seas. Furthermore, developing countries must be provided with the capacity and know-how to establish and enforce effective fisheries management regimes in their own waters.



Introduction

On July 24, 2006, after nearly five years of talks, the World Trade Organization (WTO) suspended its negotiations to liberalize world trade in a wide range of products from agriculture to industrial goods.

The negotiations collapsed under the combined weight of United States and EU intransigence. The US refused to budge on its massive domestic subsidies for large farmers, and joined the European Communities (EC) to demand that developing countries rapidly open up their markets by slashing tariff protection. EU and US disagreed about who should move and developing countries concluded that what was on the table was not acceptable. Negotiations between key governments therefore collapsed on July 24th and WTO Director-General Pascal Lamy suggested the suspension of the Round. On July 27, 2006, the WTO General Council took notice of this recommendation. Since then, the negotiations launched at the WTO Ministerial meeting in Doha in 2001, have been officially on ice – though informal discussions continue between key countries and there were moves towards a partial resumption of the Round in November 2006 (Khor, 2006a).

Because of the impact that trade has on the environment and sustainable development Greenpeace has followed the Doha Round closely and intervened repeatedly to highlight the contradictions between the WTO's free trade rhetoric and the reality of environmental degradation and destruction that all too often accompanies trade liberalization.¹

This paper shows the real and negative conservation and development impacts of trade liberalization in fish and fishery products, which were included in the catch-all scope of the Doha Round's Non-Agricultural Market Access (NAMA) negotiations. It shows how further liberalization will speed up the pace of over-fishing, further increase unsustainable aquaculture production, and have generally devastating consequences for fish, the wider marine environment, developing countries and the one billion poor people worldwide who depend on fish as their primary source of protein. The evidence for this from case studies and projections carried out by different organizations is overwhelming.

The combination of tariff reductions and weak fish management and enforcement regimes will inevitably lead to over-fishing and the exhaustion and collapse of many of the world's wild fish stocks. In the marine environment, trade liberalization will hasten the already significant losses of biological and genetic diversity caused by more than five decades of large-scale industrial over-fishing; while on dry land it will exacerbate poverty and insecurity for the millions of poor people who depend on the wild fishery for their food and livelihoods.

Greenpeace believes that the suspension of the Doha Round negotiations is an opportunity to avert these disasters, by taking the negotiations on fish and fish products out of the WTO and putting them where they should have been all along: in multilateral fora, where commercial and trade interests do not dominate and where, ideally, sustainability and the protection of the environment are the focus of discussions.

¹ See list of previous Greenpeace papers on the Doha Round in Appendix I.





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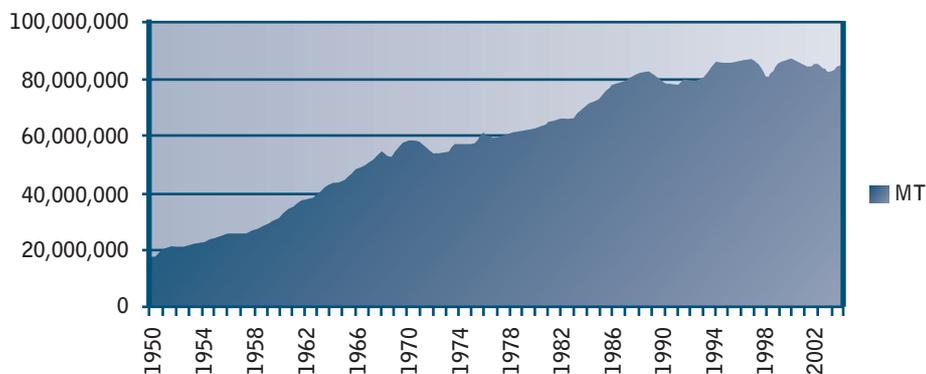
Counting paper fish

Tracking wild capture production

The challenging task of keeping track of the global amount of fish that gets taken out of the oceans every year, and estimating the health of the commercial stocks that remain, is part of the mandate of the Fisheries Department of the Rome-based United Nation's Food and Agriculture Organisation (FAO). The FAO maintains a time series on fisheries production that goes back to 1950, the point at which it is generally acknowledged industrial fishing began its rapid spread around the globe.²

The FAO's data shows that industrial fishings' impact on world fisheries production was immediate. From 1950 to 1970 landings of wild marine fish more than tripled and by the late 1980s they increased by another 40 percent. (See Figure 1)

Figure 1.
World Capture fisheries landings 1950-2004
Source: FAO - Figs 2006



While recent concerns about the reliability of Chinese data could change the overall outlook (see Box 1), this data suggests that since the late 1980s landings have leveled off and fluctuated between 77 and approximately 87 million metric tons (FAO Review, 2005).

This is not an encouraging trend. Despite repeated calls for a global reduction in fishing capacity, the number of large-scale fishing vessels (above 100 gross tons) has remained stable at around 24,000 since the 1990s and several nations, particularly in Asia, continue to build (and subsidize) new industrial vessels³ (High Seas Task Force, 2006). During this time fishing efficiency has improved tremendously, thanks to technological advances in Global Positioning Systems (GPS), underwater imagery and aerial and/or satellite location of fish stocks. Moreover, on the high seas and in the poorly controlled waters of many nations virtual open access conditions exist. The fact that fisheries production is not increasing under these conditions strongly suggests that global catch rates are falling, a sure sign of an overall decline in fisheries productivity and of over-fishing.

The global profile of the *reported* landings of marine-capture fisheries, however, is only a partial picture of the amount of wild fish that is taken out of the oceans each year. There

² Before the Second World War industrial fishing was constrained by the ability to conserve its catch at sea. All this changed after the War as advances in refrigeration technology allowed vessels to remain on prime fishing grounds for extended periods of time. The conversion of wartime sonar to fish-finding also made it a lot easier to locate large concentrations of fish (Warner, 1977). The legal environment of the time also allowed foreign countries to fish up to three nautical miles from a country's shore, thereby giving them free access to some of the richest fishing grounds in the world.

³ Between 2001 and 2003, 51 large-scale fishing vessels were launched from Taiwanese shipyards for clients around the world (High Seas Task Force, 2006). While in Vietnam a French firm announced in June 2005 that it would build 400 new deep-sea fishing vessels to "help increase the efficiency of offshore fishing" (Thanh Nien News, 2005).

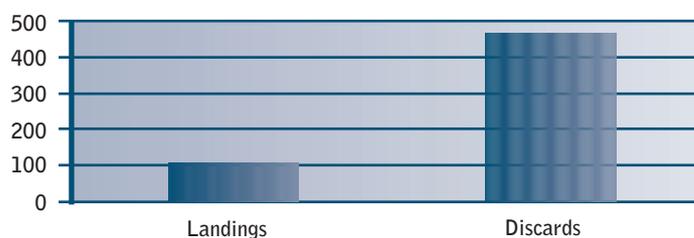
are two other significant contributions to global fishing: discarding⁴ - the fishing industry's practice of catching and dumping fish and other animals while at sea - and the amount of fish taken by Illegal, Unreported and Unregulated (IUU) fishing. According to conservative estimates IUU fishing (also known as pirate fishing) amounts to a market value of US\$ 9 billion annually (High Seas Task Force 2006). While some estimates suggest that IUU fishing could account for 25 percent of the total global catch, there is no consensus on the amount of fish caught by IUU activities (FAO, 2002a).

However, a recent FAO study provides new estimates on global discards of unwanted fish catch.

Global discard volumes

In 1994 the FAO first estimated that the fishing industry likely discarded some 27 million metric tons of fish a year. This figure was subsequently downwardly revised to 20 million metric tons based on changing assumptions about industry practices. The latest estimate significantly reduces the overall amount.

Figure 2.
Catches ('000 MT) by US Gulf of Mexico Shrimp fleet 2002/03
Source: Harrington et al



According to an FAO report released in 2005 the global fishing industry is now likely dumping or "discarding" 8 to 8.35 million metric tons of marine life at sea, or the equivalent of 10 percent of what reportedly gets brought to shore.⁵ While the FAO says the trend in discards volumes was downward in the 1990s it now believes they have increased by 10 to 15 percent in recent years, following increases in the amount of shrimp trawling (Kelleher, 2005).

This is because shrimp and groundfish trawl fisheries (bottom trawling) are by far the worst offenders and account for 50 percent of the total discard volume. Tropical shrimp trawl fisheries top the list with an estimated 27 percent of the total estimated discards, and the foreign shrimp fleets fishing in the waters of Mauritania and Senegal have some of the highest rates (Kelleher, 2005).

⁴ Discarding involves both targeted and non-targeted species or by-catch, which can include large volumes of seabirds in the case of long lining.

⁵ Besides changes in the methodological approach to estimating discards, the reasons given for the sharp drop in the volume of estimated discards from the late 1990s to today are that the fishing industry, particularly in Asia, is retaining more by-catch for both aquaculture and human consumption, fishing gear has become more selective, there are better management measures and there has been a supposed decline in intensity of fishing for species with high discard rates (Kelleher, 2005).

The highest volume of discards of any single fishery in the world, however, belongs to the US Gulf of Mexico shrimp trawl fishery. Despite the mandatory use of turtle excluder devices (TEDs), this fleet each year discards an estimated 480,000 metric tons of snappers, emperors and many other species, i.e. an amount surpassing the total annual reported landings of a country like Senegal in recent years. (See Figure 2).

In the groundfish industry the Argentine hake trawl fishery stood out, discarding an estimated annual average of 150.000 metric tons in the 1990s.

It is useful to remember some of these examples because, as will be shown below, during the 1990s the fisheries in Mauritania, Senegal and Argentina were all stimulated to the point of over-fishing by preferential tariff treatment in the EU market.



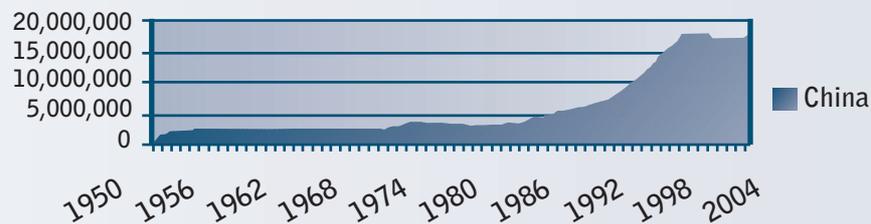
BOX 1

The reliability of Chinese production statistics

In 2002, the FAO began to separate Chinese production data from the rest of the world's, based on concerns that Chinese capture fishery and aquaculture production statistics had been overestimated for the last decade (FAO, 2002; FAO, 2004). Confidence in the Chinese data is important because the sheer magnitude of its reported landings has an impact on the global landings picture.

Beginning in the mid-1980s China began to report impressive year over year increases in its fisheries production and in the 1990s became the world's dominant fishing nation. In 1998 it reached the apex of this growth when it reported 17.2 million metric tons of landings from marine and inland capture fisheries (see Figure 3), roughly 20 percent of the world's total.

Figure 3.
Chinese fisheries landings in metric tonnes
Source: FAO - FISHSTAT + 2006



The Chinese data was suspicious because it was out of sync with the performance of other fisheries around the world. One hypothesis is that the Chinese officials who were responsible for both monitoring fisheries production and increasing it were misrepresenting the data to increase their possibilities of promotion (Watson & Pauly, 2001). The Chinese government seemed to recognize this problem and in 1998 declared a zero growth policy for its capture fisheries, and landings have remained roughly at the 1998 levels ever since (Watson & Pauly, 2001; FAO, 2002; Fishstat Plus, 2006).

By substituting corrected data for that reported by the Chinese government, researchers outside of the FAO contend that global catch trends, instead of growing and then stabilizing, have declined annually by 360,000 metric tons since 1988. This global trend increases to 660,000 metric tons when Peruvian anchovy catches are also removed from the global statistics because of the distorting effect that their large volumes have on world production figures (Watson & Pauly, 2001).

While the steady trend of falling fisheries production remains theoretical, a recent Chinese press report indicates that domestic Chinese fisheries production is in serious difficulty. If this situation is generalized and begins to show up in forthcoming reports on Chinese landings then the global trends in fisheries production will soon change for the worse.

In mid August 2006 the Shanghai Daily reported that fishery production in the East China Sea dropped 35 percent from 2001 to 2005 because of over-fishing and pollution. The report cited data released by the Zhoushan Fishery Bureau that the annual catch dropped from over 1.3 million tons in 2001 to 980,000 tons in 2005, and that the quality of the fish species caught had degraded. According to the news report, in the past this fishery was one of China's most productive, providing 10 percent of its total catch. Eighty-one per cent of the sea area has now been rated category four for pollution, the second worst of five pollution grades, and an expansion from 53 percent rated category four in 2000. The over-fishing was largely attributed to China's deep-sea fleet returning to coastal waters because of conflicts with Japan and Korea over fishing grounds, and because of restrictions placed on fishing due to the proliferation of undersea fib-optic and electricity cables and oil pipelines in the Zhoushan fishery (Shanghai Daily, August 17, 2006).



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The health of commercial fish stocks

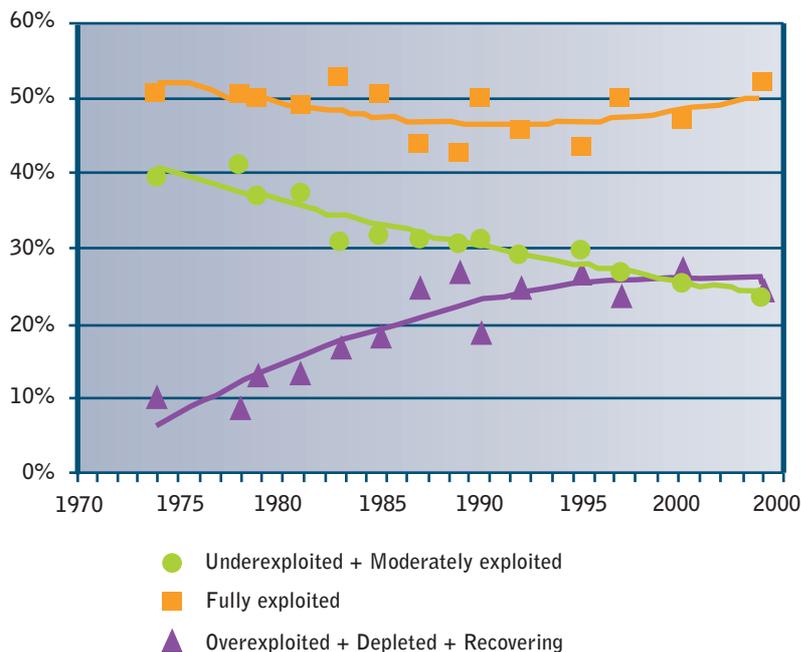
In addition to its global data on fisheries production the FAO also provides a biennial assessment of the state of the world's commercial fish stocks. Out of a total of 584 stock "items" in its database in 2005 it had enough information to offer an opinion on the level of exploitation for 441 (FAO, 2005). As has been the case in past years, the most recent news on the state of the main commercial fish stocks is dismal.

- Fifty-two percent of the commercial stocks assessed are considered fully exploited i.e. with no room for further expansion.
- Another 25 percent of the stocks are in even worse shape: 17 percent are over-exploited, 7 percent are depleted and 1 percent is recovering.
- Of the remaining commercial stocks, only 3 percent are under-exploited and 20 percent moderately so.

This last category of *under- and moderately exploited* stocks provides the only room for any future expansion of wild fisheries production. However, there are reasons why these stocks are under-exploited. They are often fish of little commercial value.

The long-term trends and overall patterns underscore the unsustainability of current production:

Figure 4.
Global trends in world stocks state of exploitation: 1974-2004
Source: FAO, 2005



- By the mid-1970s the number of "undeveloped" fisheries, i.e. fisheries with low initial catches fell to zero. (FAO,2005)
- The trend in stocks offering potential for expansion has been heading clearly downward, decreasing from 40 percent in 1970 to 24 per cent in the early 2000s. (See Figure 4)
- The proportion of over-exploited stocks has been going in the other direction, increasing from about 10 percent in the mid-1970s to close to 25 percent in the 2000s. (See Figure 4)

The ecological impact of over-fishing

Calculating and tracking the evolution of global fisheries production and assessing the state of commercial stocks are important but they are not a reflection of the overall ecological health of our oceans. The data collected is only related to those species that are commercially important and therefore gives us only a partial perspective of what is happening in the marine environment, i.e. what is happening to those species that have commercial value.

But fishing has an ecological impact much beyond the performance of commercial stocks. Because of the huge amounts of biomass that it removes from the oceans, the species that it catches and dumps back in the water because they are damaged, too small or have little or no commercial value, and the damage that it does to marine habitat, fishing is having a devastating overall impact on ocean ecosystems.

In fact, intensive over-fishing the world over has been, for some time now, fundamentally altering eco-systems. This is something that the smooth graphs and time series that plot reported landings don't show.

By severely depleting dominant predator species like groundfish, the fishing industry creates the conditions that stimulate the growth in abundance of species lower on the food web thereby generating new prey-predator relationships and establishing new dominant species; situations that may be impossible to reverse.

Ironically, this can at times be beneficial to the fishing industry - as happened off the coast of Canada, where cod was fished to commercial extinction and replaced in the ecosystem by an increased abundance of commercially more valuable crab and shrimp.

However, there is no predicting what effects over-fishing will produce in a given eco-system. A recent study off the coast of Namibia indicates that jellyfish can thrive and come to dominate a heavily over-fished ecosystem and become impossible to dislodge because they are predatory on fish eggs and strong competitors for fish food.

The scientists who have documented this phenomenon refer to it as the ultimate "end point" of fishing down the food web: an ecosystem dominated by jellyfish, a species formerly low on the food chain, with no predators and no commercial value that comes to rule over an ecosystem where previously dominant pelagics or demersal species have been severely depleted by over-fishing (Lyman et al, 2006).





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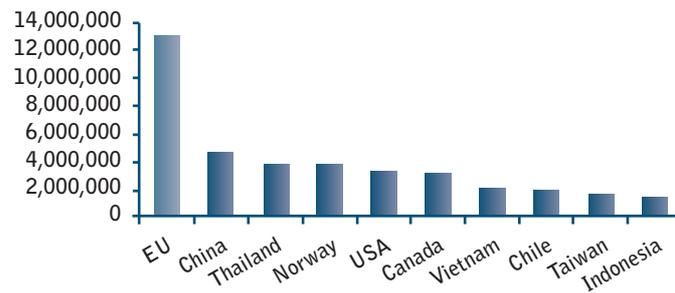


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World Trade in fish and fish products

Figure 4.
Top 10 Fish Exporters US\$ 2002



Exports

Fish is a highly traded commodity. In volume terms approximately 37 percent of world production (capture and aquaculture combined) is traded internationally (Lem, 2006). Measured in export values, world trade in fish and fish products reached \$71 billion (US) in 2004, about nine times the nominal values of 1976.⁶ By comparison, international beef exports for the same year were only 18.3 billion US\$ (COMTRADE, 2006).

The bulk of fish exports come from the EU and nine individual fish-exporting countries (See Figure 4). The EU remains by far the largest exporter with 34 percent of total export value⁷, followed by China at 9 percent, Thailand and Norway at 6 percent, Canada and the US at 5 percent, Viet Nam, Chile and Taiwan each at 3 percent and Indonesia at 2 percent (Lem, 2006).

Trade value by species shows that shrimp and salmon account for 27 percent of all traded values (18 percent and 9 percent respectively)⁸ followed by groundfish at 11 percent, tuna at 8 percent, and cephalopods, small pelagics and combined fishmeal and oil each at 5 percent. All other species combined account for 34 percent of total value (Lem, 2006).



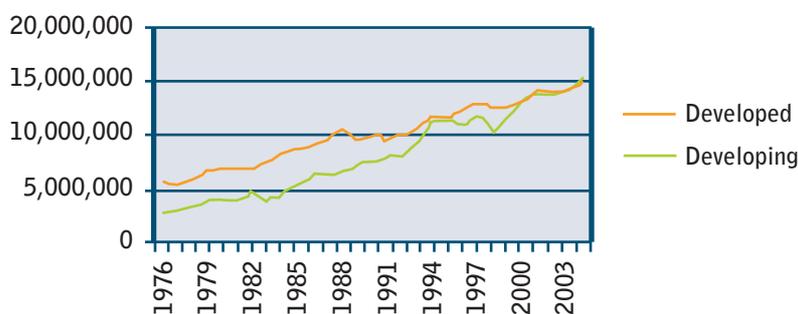
⁶ Because of inflation nominal increases in values do not reveal much. To get an accurate picture of the evolution of the real value of fish exports during this time they would have to be expressed in deflated constant dollar terms as a value per ton; an exercise beyond the resources of this study.

⁷ This provides some of a distorted picture since much of what is exported by one EU country is imported by another EU neighbour (Lem, 2006).

⁸ It is not possible to get a breakdown of wild versus farmed exports. However, farmed shrimp represents approximately 25 percent of global shrimp production (Tacon, 2002) and is assumed to be largely exported. Neither is it possible to distinguish exports of wild from farmed salmon but since farmed salmon is a moderate- to high-value export commodity it can be assumed to contribute significantly to export values.

Since 1995, developing countries have accounted for roughly half of all export values, increasing their share steadily from 1976 when they claimed a little less than 37 percent. They have achieved this greater share of world fish export value by significantly increasing their export volume. In 1976 developing countries exported just over 2.5 million metric tons of fish and fish products, less than half the 5.39 million metric tons exported by developed countries.

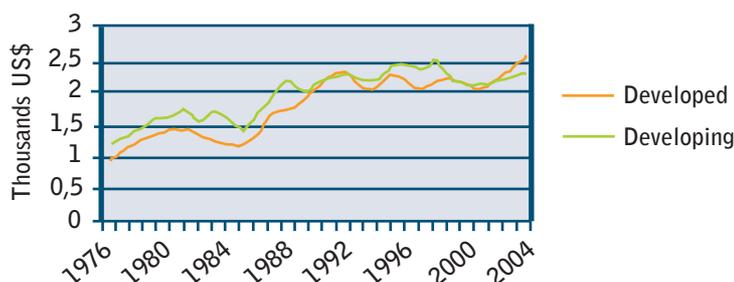
Figure 5.
World fish export volume



As Figure 5 shows, the volume of developing country exports has risen steadily over the last 30 years, reaching 15.1 million metric tons in 2004; a six-fold increase over 1976 levels.

While the nominal value and the overall volume of developing country fish exports have increased sharply since the 1970s, their relative value has declined steadily in recent years (See Figure 6). In 1976 a ton of developing country exports expressed in US dollars was worth 20 percent more than the value of developed country exports using the same measure. In 1984, this spread reached a high of 28.4 percent. Except for a couple of years in the early 1990s, the relative value of developing country exports per ton remained higher than that of developed countries until 1999 when this began to change. The relative value of developing country fish exports declined steadily in 2002, 2003 and 2004 when they were worth 10.4 percent less per ton than developed country exports.

Figure 6.
World fish export value per ton



There are several possible explanations for this but what is clear is that developing countries are now getting a lot less value per ton for their fish exports than developed countries, a complete reversal of the situation in the mid-1970s. This gap is larger than it has ever been and it is increasing.

One of the sad ironies of international fish trade is that exports are particularly important for some of the poorest countries in the world; those that classify for the FAO's Low-income Food-Deficit Country category (LIFDC).⁹ In recent years, these countries collectively exported 20 percent of the value of all fishery products. In 2003, this was estimated at 13 billion US\$. Their imports being much lower (4 billion US\$ in 2003) this created a very healthy surplus in their fish trade, which contributed positively to an overall negative balance of payment situation (FAO, 2005a).

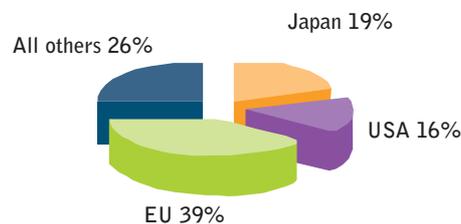
⁹ LIFDC is an FAO category that classifies countries according to three criteria: i) countries must have a per capita income below the World Bank level for determining eligibility for overseas development assistance (1.465 US\$ in 2003), ii) the net balance of food trade for a broad basket of food stuffs and iii) a self exclusion criteria. In 2005 there were 82 countries on the list including most of Africa and large parts of Asia (FAO, no date).

However, as the case studies of Mauritania and Senegal will show below, what has been good for balance of payments has not been good for the state of fish stocks, food security or the interests of the poor in these countries.

Import values

Unlike fish exports, which are more broadly distributed between countries, fish imports are highly concentrated. Three big developed country markets, Japan, the US and the EU, collectively garner almost 75 percent of all imports. The remaining developed countries take another 13 percent, leaving all developing countries with the relatively small 12 percent share of the value of overall imports (Melchior, 2006). While developing countries collectively account for a relatively small percentage of total world imports values, their import volumes tend to be higher, reflecting that developing country imports are mostly of lower value pelagics (Ahmed, 2006).

Figure 7.
Value of Worlds Fish Imports (2004)
Source: Lem, 2006



As Figure 7 shows, in 2004 Japan's imports were worth 14.6 billion US\$, the US's 12 billion US\$ and the EU's 29.4 billion US\$.

Trade flows

As mentioned above fish imports are highly skewed towards developed countries. According to a recent analysis (Ahmed, 2006) about half of this trade is between developed countries themselves (North – North) while an equivalent amount (South - North) flows from southern countries into the rich markets of the (mostly) northern developed world. Trade in the other direction (North - South) makes up only about 6.5 percent of global trade and trade between developing countries (South - South) makes up the remaining 8.5 percent.¹⁰

Trade in fish products follows a rich-country-poor-country dynamic because high quality fisheries products are becoming increasingly expensive and in many cases luxury food items. Essentially, high value products like crab, lobsters, shrimp, prawns and tuna, fresh and frozen groundfish, mollusks and cephalopods (octopus) are shipped to rich country markets, while low value products (relatively inexpensive pelagics to feed people and to produce fish meal and oil to feed the burgeoning aquaculture industry) flow from the North to the South and between developing countries (Ahmed, 2006).

While on the surface (and using traditional accounting methods) this flow of international fish trade provides a very healthy net fish trade surplus of more than 20 billion US\$ (2004) for developing countries (Lem, 2006), it comes at a tremendous cost, as they have in many, many cases dangerously over-fished their stocks to meet developed country demand. In the process, they have endangered both their food security and their future earning capacity. Ironically, this pattern also repeats the havoc wreaked by developed

¹⁰ The Ahmed figures are based on 2002 trade figures, which show developed countries having an 85 percent share of imports. The Melchior figures (88 percent) do not indicate a date, but are likely for a later year.

countries on their own fish stocks – the reason why their distant water fishing fleets are now increasingly exploiting the last remaining under-exploited fisheries on the high seas and off the coasts of poor developing nations.

Estimating the costs of over-fishing to a country and society does not appear to be of interest or concern to mainstream economics, even though these costs are real and increasingly evident in falling employment, reduced earnings from fishing and lost future opportunities, as more and more countries experience drastic declines in fish stocks and stock collapses. Yet estimates can be made. As shown below (see page 53), a cost/benefit analysis of the Argentine fishery estimates that over-fishing the country's hake resources constituted a social loss for future generations of 3.5 billion US\$ over 30 years. Had the resource been managed sustainably - simply by respecting the total allowable catch quotas - it could have instead generated a net benefit of 5 billion US\$. (See case study Argentina below; UNEP, 2002)

This kind of costs/benefits accounting of international trade has yet to be done on a larger scale, yet the evidence of unsustainable fishing levels continues to mount especially in developing countries. Most developing countries are ill-equipped to monitor and control resource extraction in their coastal waters - either that of their domestic artisanal and industrial fleets or those of foreign boats fishing either legally or illegally in their waters. Consequently, they are witnessing the rapid depletion of their fishing resources even as their share of international trade grows. The declining value per ton of their exports relative to that of developed countries is perhaps an indication that the benefits of this strategy are short-lived.



BOX 2

In a supermarket near you: Norwegian cod "Product of China"

In 2002 China overtook Thailand to become the world's largest single exporter of fish and fisheries products, with 4.5 billion US\$ in exports. At the same time, China moved into 8th position on the list of the world's largest fish importers (Lem, no date).

China's imports and exports, however, are becoming increasingly linked as it emerges as the dominant player in the secondary processing of fishery products, particularly in the highly globalized trade in groundfish. By the early 2000s an estimated 25 to 30 percent of the world's headed and gutted groundfish was being shipped to China for further processing (Rowe, 2002) in what has become known as the "twice frozen" market. The process works like this: industrially fished groundfish (e.g. cod from the Barents Sea or Alaskan Pollock) are headed, gutted and frozen at sea, sold and shipped to Chinese processing firms which then thaw, fillet, package and refreeze the fish for re-export labelled as a Chinese or combined China/country of origin product. Because of its low-cost labour, large and modern processing facilities and its ability to meet the most rigorous food safety standards China is likely to dominate the global groundfish sector in the very near future if it hasn't already done so.

Traditional developed country groundfish producers simply cannot compete with the Chinese costs of converting round fish to a finished product. As a result, Chinese firms have driven up the price of round groundfish in the open market because they can afford to pay more given their comparative advantage in overall costs. This has led to closures of traditional groundfish plants in countries like Canada and Norway (Rowe, 2002), which - under one of the ironies of globalisation - are often much, much closer than China to the grounds where the fish is caught in the first place. The ecological costs of transporting frozen fish around the globe and back are obviously not factored into this equation.



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The WTO and the Doha Round

The World Trade Organization (WTO) was created in 1995 to replace the General Agreement on Tariffs and Trade (GATT), which started the process of trade liberalization after the Second World War.¹¹

The WTO furthers the GATT liberalization process by providing both a forum for the negotiation of new rules to liberalize international trade and an unprecedented means to resolve disputes under existing rules. Because of the breadth of its membership (149 members¹²), the strength of its rules (WTO rules supercede national legislation) and their enforceability (all members agree to follow the rules and abide by the decisions of the WTO's dispute settlement mechanism) the WTO has become, in its short history, the world's most powerful international organization (Narlikar, 2005). From Greenpeace's perspective, the WTO is increasingly acting as a global governance organisation, extending its work program to new areas of competence, and thereby frustrating bodies that possess more appropriate expertise, including some Multilateral Environmental Agreements (MEAs) (Birdlife International et al, 2005).

In November 2001, after years of discussions and concerted pressure exerted on developing countries, WTO members agreed to launch a series of multi-faceted trade negotiations known as the Doha Round (Jawara and Kwa, 2004).

In the lead-up to the launch, developing countries, particularly those from Africa, were hesitant to engage in new trade negotiations, especially as the commitments made to them by developed countries in 1994 during the GATT's Uruguay Round remain(ed) unfulfilled. Because of intense political and economic pressure, they were eventually forced to participate in the Round. Their participation was made somewhat more palatable by the WTO's Doha Ministerial declaration, which claimed that developing country needs and interests would be placed "at the heart of the negotiations" (WTO, 2001).

While the declaration adopted at Doha committed governments to undertake a wide range of negotiations, three areas - agriculture, non-agricultural market access (NAMA) and services - became the focus of negotiations after 2003.

Under the Non-Agricultural Product Market Access (NAMA) negotiations, which are often referred to as the negotiations on industrial goods, the members agreed to focus on tariff reduction in a wide range of products and industries. Product coverage was to be comprehensive, without a priori exclusions (WTO, 2001; Greenpeace, 2005) and fish and fish products, like forestry and mining, were included in the scope of the NAMA negotiations process.

The Doha Round was approached as a 'single undertaking', i.e. nothing was to be agreed until everything was agreed. Its goal was to produce at the end of all the negotiations, an agreed upon single package of new trade measures that would be binding on all members. Therefore, all strands of the negotiations are linked. This also meant that the stalling of the agriculture negotiations in July 2006 directly resulted in the suspension of all other strands of the negotiations, i.e. the entire Round.

¹¹ GATT was both an agreement (a) and an institution (b).

a) The agreement: From 1947 to 1994, GATT was the forum for negotiating lower customs duty rates and other trade barriers; the text of the General Agreement spelt out important rules. The Uruguay Round negotiations (1986–94) led to a major revision of the original General Agreement on Tariffs and Trade (GATT) of 1948. Since 1995, the updated GATT has become the WTO's umbrella agreement for trade in goods.

b) The institution: GATT was a de facto "international organization" without a proper legal foundation. International law did not recognize GATT as an organization. See

http://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inbr03_e.htm, accessed on October 21, 2006.

¹² Data for membership as of 1st of December 2006. Viet Nam was set to become the 150th member in January 2007.

The main issues in the NAMA negotiations

Although their mandate was wide and specifically included non-tariff measures, the NAMA negotiations in recent years were essentially a tug-of-war around tariffs fought between developed and developing countries. Developed countries entered the negotiations seeking deep and rapid tariff cuts across the board under a *zero for zero* scenario: developed countries proposed to cut their tariffs to zero and expected developing countries to do the same.¹³ Developing countries by and large resisted this push, seeking to maintain tariff protection for existing or future industrialization and to protect vulnerable sectors of their economies in terms of livelihoods and food security. Given past liberalization initiatives and structural adjustment programs, tariffs are often the last industrial policy instruments left to developing countries.

The negotiations that followed on tariff reduction focussed on six main issues:

• Tariff reduction through “harmonization”

In the esoteric jargon of trade negotiators, tariff “harmonization” became the means of achieving the NAMA tariff reduction objective. Harmonization was to significantly narrow the gaps in tariff rates between developed and developing countries, an exercise which would have required very large concessions from developing countries given their relatively higher tariff rates. Tariff harmonization was to be achieved through a tariff reduction formula with different coefficients for developed and developing countries. According to the Doha Declaration *less than full reciprocity* would be required from developing countries; i.e. developing countries were to cut their tariffs by *less* than developed countries. However, throughout the negotiations, developed countries pushed for coefficients that would result in far more significant tariff cuts for many developing countries than developed ones. The Doha Mandate for *less than full reciprocity* was simply ignored or re-interpreted as developed nations aggressively pursued market access for their own industries.

• Eliminating binding overhang or “the water in the tariffs”

Binding overhang or water in the tariffs refers to the difference between the maximum tariff rate a country has agreed to limit itself to for a given product (known as the *bound rate*) and the usually lower applied rate, i.e. the actual tariff rate it imposes on goods entering the country. The differences between the bound and *applied rates* are quite often significant for developing countries. Binding overhang therefore becomes an important consideration when applying across-the-board tariff cuts because if they are applied to bound levels that are significantly higher than the applied rates the end result is no tariff reduction in real terms.

• Binding one hundred percent of tariffs

Agreeing to bind one’s tariffs (i.e. establish a maximum tariff rate) is considered a concession in and of itself because it eliminates a country’s flexibility to increase tariffs beyond a certain level in the future. Many developing countries have high levels of unbound tariffs. The objective of achieving 100 percent binding became an important issue in the negotiations as 100 percent binding significantly undermines the flexibility of developing countries in their tariff policy, and therefore limits their policy space.

• Special and differential treatment for developing countries

The GATT established the precedent of providing *Special and Differential Treatment* for developing countries, especially Least Developed Countries (LDCs) in order to lessen the impact of the liberalization measures the rest of the world was agreeing to. The Doha Declaration reaffirmed this principle and committed the WTO members to strengthening special and differential treatment and making it more precise, effective and operational (WTO, 2001). Once negotiations began, however, developed countries, particularly the US, seemed to suffer collective amnesia on the application of this principle. Throughout the Round *Special and Differential Treatment* was consistently ignored and, as in the case of tariff reduction, developing countries were consistently under pressure to make greater concessions than developed ones (Khor, 2006).

¹³ The starting US position was that all tariffs in all agricultural and NAMA products should be completely eliminated for all countries by 2015.

- **Sectoral initiatives**

Sectoral initiatives were the Doha Round's means of eliminating tariffs completely in certain key sectors or products by allowing members to move beyond the formula cuts of the broader NAMA negotiations. In trade jargon, the sectoral initiatives were aimed at *increasing the level of ambition* by fast-forwarding liberalization in certain sectors. In the course of the negotiations, certain parameters were set to guide the sectoral negotiations. The two main ones were that participation was non-mandatory, and a 'critical mass' of countries representing a significant percentage of world trade in the sector would have to be achieved for it to be successful (Para 16; Hong Kong declaration, see WTO 2005a). In the course of the NAMA negotiations seven sectors were identified or proposed by members for sectoral initiatives - including one for fish and fishery products (see page 34).

- **Preference erosion**

In the course of the NAMA negotiations, the issue of *preference erosion* became a dominant concern for some of the poorest developing countries,¹⁴ known as the ACP Group. The ACP Group is made up of 79 countries from Africa, the Caribbean and the Pacific. Under the Lomé Convention, a preferential trading agreement negotiated with the European Communities in 1975 and subsequently renewed as the Cotonou Agreement in 2000, these countries received duty-free access to the European market for their goods.¹⁵ As a result of these trade accords and accompanying fisheries agreements (see case studies of Mauritania and Senegal below), fisheries products now make up a significant part of the export trade flowing from ACP countries into the EU market.



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¹⁴ The ACP group consists of 79 members, but only 78 signed the Cotonou agreement. Cuba, becoming the 78th ACP member in December 2000, is the exception.

¹⁵ The Cotonou agreement is the successor to the Lomé Convention, which expired in February 2000 and provided preferential access to the EU market, as well as development assistance. The Cotonou arrangements are to be extended to 31 December 2007 and based on a WTO waiver of 14 November 2001 (see http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_acp_ec_agre_e.htm, accessed on October 21, 2006). The negotiations leading to the new Economic Partnership Agreements (EPAs), the successors of the Cotonou agreement, were launched in Brussels on 27 September 2002 and are still ongoing.

From the ACP perspective, the NAMA negotiations are a clear threat, because the reduction of tariffs for all WTO members exporting to the EU would undermine the tariff advantages they have under the Lomé/Cotonou agreements. This holds true especially in the case of fisheries products, particularly canned tuna (see Box 3). As a result, ACP countries were reluctant to engage in the NAMA negotiations in general and the fisheries sectoral in particular and remain so, despite some flexibilities agreed to in 2004, that would exempt ACP countries from making their own commitments under NAMA (WTO 2004).¹⁶

Table 1 below shows examples of some of the main beneficiaries of the preferential schemes of the EU and Japan for selected fisheries products.

Table 1.

Key fisheries products imported under EU preferential schemes (2002)				
Product	MFN ¹⁷ rate	ACP rate	LDC rate	Main supplier & share of total imports
Frozen shrimp/prawns	12%	0%	n.a.	Madagascar (55.3%)
Fresh or chilled fillets	9%	0%	n.a.	Tanzania (64.6%)
Frozen shrimp/prawns	12%	n.a.	0%	Bangladesh (99.1%)

Key fisheries products imported under preferential schemes Japan (2002)			
Product	MFN rate	GSP rate	Main supplier & share of total imports
Octopus	7%	0%	Mauritania (97.3%)

Source: UNCTAD, 2005

¹⁶ See paragraphs 7 and 8 of the Annex B: Framework for Establishing Modalities in Market Access for Non-Agricultural Products in the Doha Work Programme. Decision Adopted by the General Council on 1 August 2004 (WTO, 2004):

7. "We recognize that a sectoral tariff component, aiming at elimination or harmonization is another key element to achieving the objectives of paragraph 16 of the Doha Ministerial Declaration with regard to the reduction or elimination of tariffs, in particular on products of export interest to developing countries. We recognize that participation by all participants will be important to that effect. We therefore instruct the Negotiating Group to pursue its discussions on such a component, with a view to defining product coverage, participation, and adequate provisions of flexibility for developing-country participants."

8. "We agree that developing-country participants shall have longer implementation periods for tariff reductions. In addition, they shall be given the following flexibility: a) applying less than formula cuts to up to [10] percent of the tariff lines provided that the cuts are no less than half the formula cuts and that these tariff lines do not exceed [10] percent of the total value of a Member's imports; or b) keeping, as an exception, tariff lines unbound, or not applying formula cuts for up to [5] percent of tariff lines provided they do not exceed [5] percent of the total value of a Member's imports.

We furthermore agree that this flexibility could not be used to exclude entire HS Chapters." (WTO, 2004)

¹⁷ Most Favoured Nation (MFN) status is the duty or tariff treatment that WTO members agree to give other members of the organization. It is based on the principle of non-discrimination, i.e. that a member will treat all other members equally. The WTO rules, however, allow for some exceptions to MFN treatment through preferential arrangements under its General System of Preferences and free trade agreements (see Box 3- Preference erosion).

BOX 3

Preference erosion: its impacts on canned tuna

Agreements that provide developing countries with preferential access to developed country markets, usually in the form of reduced tariffs, are important elements in international trade. One such agreement is the Lomé Convention¹⁸ signed in 1975 between the EU and 71 countries from Africa, the Caribbean and the Pacific, known as the ACP group.

Under this agreement fish and fisheries products enter the EU market duty free. As a result the ACP share of the overall EU fish market rose from 6.1 percent in 1976, to 9.3 percent in 1986 and 13.2 percent in 1996. The agreement is especially important for African countries as the EU now absorbs 80 percent of their fish exports (UNEP, 2002b).

Because the NAMA negotiations aim to reduce and in some cases eliminate tariffs completely they would, if completed, erode the advantages ACP countries have over competitors not covered by the agreement. This process is known as preference erosion and is a major concern of ACP countries, especially when it comes to trade in fish products. The case of canned tuna shows why.

Since the signing of the Lomé Convention, ACP countries have become important suppliers of canned tuna to the EU - now the world's largest market for canned tuna - because they are not subject to the stiff 24 percent duty imposed on their competitors. Largely as a result of this agreement, ACP countries account for 56 percent of all canned tuna entering the EU, with 29 percent coming from South-East Asia (Thailand and the Philippines) and 12 percent coming from Latin American countries (mostly Ecuador) under different and less favourable preferential arrangements known as the Generalized System of Preferences (GSP).

What is significant about this distribution of market share is that Southeast Asian exporters are able to garner and maintain such an important portion of the European market while still paying full duty.¹⁹ In fact, Asian canned tuna has a slight competitive advantage over ACP products of 11 euros a ton even after it has cleared customs, and 198 euros a ton over GSP producers.

An analysis of the impact on the European tuna trade of complete liberalization at the end of the WTO negotiations without any progressiveness (i.e. immediate elimination of tariffs) shows that there would be an immediate shift in production from ACP countries – mainly West African - to Asia, principally Thailand, because of the price advantage.



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¹⁸ Renewed in 2000 under the Cotonou agreement and now covering 78 ACP countries.

¹⁹ Canned tuna from Thailand, the Philippines and Indonesia faces an initial 12 percent duty on a shared quota of 27.750 mt. Once the quota is filled these countries qualify for the standard GSP treatment with duty set at 21.5 percent. Because Thailand out-sources a significant part of its tuna supplies it cannot meet the GSP rules of origin thereby forcing it into the MFN treatment and duty of 24 percent.

While the elimination of the 24 percent tariff on canned tuna would result in a drop of 18 percent in the price European consumers would pay for a can of tuna it would result in the loss of approximately 10,000 jobs (direct and indirect) from the processing industry in ACP countries and between 6,000 and 9,000 jobs in Europe dependent on tuna activity.

Production from European tuna boats fishing in ACP waters would likely continue and result in trans-shipments to Asian canneries which are currently operating at only two-thirds capacity.

Thailand, which is already the world's largest exporter of canned tuna would become the new hub for canned tuna production flowing into the EU, with Bangkok at its center.

Source: Megapesca, 2005.

Other Doha Round negotiations affecting fisheries

In addition to the NAMA process, there are several other negotiations under the umbrella of the Doha Round that involve fisheries. The WTO's Negotiating Group on Rules (NGR) was mandated to negotiate the new rules for the disciplining of fisheries subsidies (Greenpeace, 2006). Under the General Agreement in Trade in Services (GATS) members undertook to liberalize services incidental to fishing (Action Aid, 2006). The WTO members also undertook to review the Agreement on Sanitary and Phyto-Sanitary Measures (SPS), and the Agreement on Technical Barriers to Trade (TBT). Lastly, the WTO's Committee on Trade and the Environment was mandated to start negotiations on the relationship between existing WTO rules and Multilateral Environmental Agreements (MEAs) (Adelphi Research et al, 2005).

Non tariff barriers

There were two types of fisheries-related Non Tariff Barriers (NTB) in the WTO negotiations: those that relate to food safety under the Agreement on Sanitary and Phyto-Sanitary Measures (SPS), and those dealing with other kinds of standards under the Agreement on Technical Barriers to Trade (TBT).

Both agreements promote international harmonization in their respective areas so as to reduce the obstacles to trade that the proliferation of different standards would engender. Under the SPS agreement food safety standards have been harmonized considerably. WTO members base their national measures on the standards and recommendations of the World Health Organization's (WHO) Codex Alimentarius Commission (Josupeit, 2005). As a result, Hazard Analysis Critical Control Point (HACCP) certification has become the generally accepted requirement for the export of fisheries products.

This is not only positive from a consumer perspective, as it provides a minimal standard in food safety, but it can also have beneficial conservation effects. The HACCP process deals with identifying critical contamination points in the handling and processing of food products. Because the quality of fish is very much influenced by the freshness of the product this can have a positive conservation effect.

In Mauritania for example, it has been found that concerns about product quality, linked to meeting HACCP standards, encourages the more selective techniques (pots, handlines) of the artisanal sector's harvesting of cephalopods as opposed to industrial trawling. Artisanal fisherpeople get paid a 30 percent premium for their catch, because they are able to land it either very fresh or still alive. The conservation impact is significant as the artisanal sector often employs more selective fishing methods resulting in less by-catch and discards thus avoiding damage to vital benthic habitats needed to maintain ecosystem productivity (PNUE, 2006).

However, the imposition of SPS standards using HACCP has not been without controversy, as developing countries' producers have in some cases had difficulty in making the adjustment to HACCP certification, which is technically demanding and costly to implement and maintain.²⁰ There have also been suggestions that it can be selectively applied to favour some trade partners over others. Greenpeace firmly believes that global standards are necessary for food safety and conservation and that developed countries have the responsibility to enable developing countries to meet any access requirements to their markets. The principle of common but differentiated responsibilities must apply, and developed countries must ensure that developing countries are enabled to meet global market requirements.

The issues related to TBT are much more complex, and moves towards harmonization less advanced. A critical issue from a conservation perspective is how the WTO would deal with such things as eco-labelling. At present, no agreed-upon international standard exists concerning the issue of sustainable production processes although the FAO has established guidelines for the eco-labelling of fish and fishery products. The WTO rules, in principle, do not accept that production methods are relevant to the trading of a product. A table is a table, no matter how it has been produced. This is one of the most basic faults of the WTO trade system and makes the WTO blind to unsustainable production methods. Labels informing consumers about how a product has been produced are not recognized by the WTO as an important public education tool (Greenpeace, 2005). Countries requiring such labelling therefore face the threat of WTO legal action against them.

The WTO's resolution of disputes that have emerged when countries have imposed conservation-based trade restrictions is not encouraging. In 1995, when the US required that all exporters of wild shrimp demonstrate the use of Turtle Excluder Devices, this measure was challenged by India, Thailand and Malaysia. The WTO's Dispute Settlement Body (DSB) eventually ruled in their favour by finding that the US had not followed WTO rules, since it had applied its measure in an arbitrary and discriminatory manner (Emmerson, 2006).

In the WTO case brought by the United States, Canada and Argentina against the EU's restrictions on genetically engineered organisms, the WTO panel simply ignored international environmental rules on the trade in genetically engineered organisms. This is a negative precedent, and could imply that even if there was a global set of conservation-based rules for the world's oceans, these could simply be ignored by the WTO (Greenpeace, 2006a).

In another WTO case brought by the United State and Canada against the EU's ban of hormones in meat production, the WTO found that the EC import prohibition was inconsistent with the SPS Agreement, and refused the EU position that the ban was justified on the basis of the precautionary principle.²¹

While trade rules are no excuse for countries to not implement existing commitments and laws – by acting, for example, to halt imports from IUU fishing - in the current policy climate, it would certainly be difficult for a country to impose trade sanctions on unsustainable fisheries imports.

²⁰ One country that has had difficulty with HACCP compliance is Bangladesh. In 1997, the EU banned imports of Bangladeshi shrimp on the basis of non-compliance with HACCP. The ban resulted in severe disruptions and loss for the Bangladeshi industry, which were eventually recouped thanks to major investment in establishing the HACCP system with the help of the FAO (Rahman, 2001).

²¹ See WTO Dispute Settlement: Dispute DS26; European Communities - Measures Concerning Meat and Meat Products (Hormones). See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm, accessed on October 23, 2006.

Tariff levels on fish and fish products

Getting a hold on the global tariff profile for fish and fish products is not an easy task. The large number of tariff lines (the EU has by far the highest with 757), the wide range in applied, bound and unbound rates between countries, added to the existence of preferential and free trade agreements makes for such a complex array that it defies meaningful generalizations. A comprehensive study of the global fish tariff situation published by the FAO in 2006 in fact concluded that there was no “single true measure for the world tariff average for seafood” (Melchior, 2006).

That being said, the study was able to offer the following conclusions:

- That in the WTO context, average bound tariffs in seafood are above 30 percent but the actual tariff burden faced by importers is more likely around 10 percent.
- That the WTO’s Most Favoured Nation status (MFN) applied tariffs for seafood are higher than tariffs for manufactured goods.
- That the extent of tariff binding is somewhat lower for seafood than for other goods.
- That binding levels are much higher in developed countries than developing. High-income countries have on average bound 79 percent of their seafood tariffs while low-income countries on average have bound only 43 percent.
- That there is a lot of water in the fish tariffs so that applied tariffs would only be affected if there were considerable reductions in the level of bound tariffs.

Figure 8. Selected EU Most Favoured Nation tariff lines for seafood

Product	%
Lobster frozen in shell excluding whole	16
Lobster meat cooked (other)	20
Mussels preserved	20
Mussels prepared	20
Smoked fish all varieties	20
Shrimp for further processing < 7000 mt	13
>7000 mt	20
Coldwater shrimp shelled/boiled/frozen	20
< 500 mt	0
> 500 mt	18
Canned tuna	24

Source: EU TARIC home page

Tariff rates in the Big Three

Given that tariffs are applied on imports, and approximately 75 percent of global fish imports are concentrated in three main markets (the EU 39 percent, Japan 19 percent and the US 16 percent – Figure 7), it is useful to look at the tariff situation that prevails in these markets since it is tariff schedules there that have the most profound effects on trade.

EU tariff rates

After the Uruguay Round, the weighted average tariffs on fish products in developed countries was 4.5 percent (Lem, no date). This would seem to suggest that tariffs on fish and fish products in developed countries are relatively low. However, the EU - by far the world's largest single market for fish - has a simple average MFN tariff line for fish of 11.8 percent (Melchior, 2006) or more than twice the developed country average.

But even this figure does not give a true picture of the tariff protection the EU has around its fisheries. As Figure 8 shows, the EU has much higher MFN tariffs on many individual products, with rates of 20 percent on some forms of shrimp, cooked lobster and certain mussel products. The simple tariff line average therefore can mask what are known as *tariff peaks* (much higher tariffs on certain products) and *tariff escalation* (increasing tariff levels as a product changes through processing). According to one analysis, the EU has tariff peaks (defined as bound MFN rates over 15 percent) in 128 tariff lines (OECD, 2003).

The practice of tariff escalation is best illustrated by how the EU treats tuna. When it comes to raw material intended for EU based processors in Spain, France and Italy, tuna enters the EU market at a zero tariff; the tariff increases to 15 percent for fresh tuna fillets, 18 percent for frozen fillets, 22 percent for tuna intended for direct consumption, and 24 percent for tuna loins and canned tuna (Megapesca, 2005).

US tariff rates

The situation in the US is even more striking. While most fresh and frozen seafood can enter the US duty free or for a few cents per kilogram, the US practises steep tariff escalation by increasing tariffs sharply for processed fish products.

For example, processed (smoked, dried, salted or in brine) salmon, herring, mackerel and anchovies all have 25 percent duties. Tariffs are even higher for canned sardines (30 percent) and canned tuna (35 to 45 percent) (US, 2006). Moreover, the US has not hesitated to apply draconian tariff sanctions against importers that threaten certain domestic producers. In recent years, the US International Trade Commission (US ITC), responding to complaints from some of its domestic producers, has levied the following anti-dumping duties on fish and seafood products (USDA, 2005):

- **Warm water shrimp:** duties of 2.35 to 112 percent on imports from Brazil, Ecuador, India, Thailand, China and Viet Nam
- **Catfish:** duties from 36 percent to 63 percent on imports from Viet Nam, which, because of another US ITC ruling, is forced to market its products in the US under the name of "basa" and "tra".
- **Salmon:** duties ranging from 2.3 to 31 percent on imports from Norway.
- **Crawfish:** duties of 223 percent on imports from China.



Japanese tariff rates

The fish and seafood tariff schedule for Japan is even more mixed. While the average MFN applied rate is 5.9 percent with a GSP rate for LDC's of 3.9 percent, a look at the individual tariff lines shows that many items (frozen lobster, shrimp and prawns) have duties of only 1 percent - significantly below the average. At 2 to 3.5 percent the tariff rate for many categories of fresh fish fillets follow this pattern as well. However, some forms of mussels, octopus and herrings have tariffs of 10 percent. Some Pacific salmon, hard clams and oysters are at 10.5 percent, and some crab products are levied at a 15 percent rate (APEC, 2006). There is also evidence of tariff escalation in the Japanese treatment of tuna. All fresh, refrigerated and frozen tuna entering the Japanese market is assessed a 3.5 percent MFN rate. The rate jumps to 9.6 percent, however, for canned tuna (Megapesca, 2005).

Tariff levels, however, do not provide a complete picture of the extent of Japanese protection for its fishing industry as it also imposes import quotas on Alaskan Pollock, herring, mackerel, cod and squid (OECD, 2003).

One can only make sense of all of this by remembering that tariff protection, like trade negotiations, is all about interests. The rule of thumb is that countries protect those domestic interests they think would be vulnerable to foreign competition if the tariff protection was not there.

In the case of fish and fish products, those interests are distant water fleets, domestic harvesters or fish processors who could easily be undermined by foreign competition. For example, US tariffs for canned tuna are there to protect the jobs of 5000 workers in American Samoa where two of the largest fish plants in the world produce 500 million US\$ worth of tuna a year for the US market. While Samoan hourly wage levels are low by US standards (3.50 US\$ per hour in 2002), they cannot compete with the low-wage canning industries of South-East Asia (Wolman 2002). Tariffs therefore serve to protect special interests and vulnerable sectors of a country's economy.

There are also clear interests behind those seeking to remove tariffs completely.

The NAMA Sectoral initiative on Fish and Fish Products

The NAMA Sectoral initiative on fish and fish products reveals the rather narrow interests at play in fisheries liberalization.

Although discussions had been happening informally and behind closed doors for some time, the sectoral initiative was officially launched in October 2005 - rather late in the NAMA negotiations - by five fish-exporting countries (Canada, Iceland, New Zealand, Norway and Thailand) as well as Singapore, a trade-dependent country. They were formally joined just prior to the Round's suspension in May 2006 by Panama (WTO, 2006), a key facilitating country for the world's Illegal, Unreported and Unregulated (IUU) fishing.

The different interests behind the fish sectoral

The sponsors of the sectoral initiative all have important fish export interests that would improve significantly with liberalization. Of the four developed country sponsors, all are fishing nations. Norway is the world's number three exporter by value and Canada is the fifth, with 6 and 5 percent of shares of global export values respectively (Lem, 2006). Although New Zealand's fish exports represent less than 2 percent of the world total, fishing is the country's fourth largest export industry and exports make up 90 percent of its revenues (New Zealand, 2001). The importance of fish exports is even more pronounced in tiny Iceland, the world's thirteenth largest exporter, where they made up more than 60 percent of the country's total export earnings in 2004 (Iceland, 2005).

Because they are net fisheries exporters outside of the EU, all of these countries would benefit from a liberalization process that would reduce tariffs significantly. Canadian and New Zealand products face an average of 12 percent duties when they enter the EU, with peaks as high as 20 percent on important species like lobster. While neither Iceland nor Norway are members of the EU they fall under preferential arrangements that reduce the average duties they face on fish to 3.5 and 5 percent respectively (Melchior, 2006). This has not stopped the EU, however, from imposing both anti-dumping and countervailing duties on Norwegian salmon imports, moves that are being challenged by Norway under the WTO's dispute-settlement process (OECD, 2003). Norway also faces duties of up to 31 percent on its salmon entering the US market.

All these fish-exporting countries, therefore, would benefit from a trade regime that eliminated fish tariffs across the board, as called for in their proposal for a fish sectoral.

None of the sponsors would benefit economically as much as Thailand, however. Thailand is the world's number two fish exporter²², second in world production of farmed shrimp and first in exports of the all-important canned tuna (Kleih et al, 2006). As discussed in Box 3, tariff elimination in the very high tariffs on canned tuna - 24 percent in the EU and 35 percent in the US - would make Thailand the undisputed world leader in canned tuna exports and Bangkok the new global hub of worldwide tuna production.

While Singapore is not a fishing nation per se – it reported landings of only 3,000 metric tons in 2004 - its trade in fish, 635.9 million US\$ of fish imports and 415.4 million US\$ in exports in 2004, is not insignificant. Singapore is above all a trading nation, firmly committed to liberalization, that trades extensively with the fishing powers of Asia (Japan, Thailand, Taiwan, China)²³ and plays an important role in the global tuna trade as a key supplier to Thailand (Kleih et al, 2006).



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²² Excluding the EU as a single market.

²³ Singapore also has a history of investment in the New Zealand fishing industry. Up until 2001 Brierley Investments, a Singapore-based, Bermuda headquartered investment firm owned half of Sealord Group Ltd., New Zealand's largest fishing company. Brierley subsequently sold its 50 percent share of Sealord to Nissui of Japan, a worldwide fishing company with large US interests (Gorton's) and a one-third share in Japan's whaling fleet. For information on Nissui, Gorton's and Sealord's role in Greenpeace's recent anti-whaling efforts, see <http://oceans.greenpeace.org/en/the-expedition/news/nissui-sealord-gortons>, accessed October 21st, 2006.

In this group, the odd country out is Panama. Prior to 1995 Panama never landed more than 125,000 metric tons of fish, two thirds of which regularly came from its traditional shrimp fleet. From 1995 onward, however, Panama began to register significant year over year increases in its fish production, recording landings in species it had never reported before, and by 2004 had nearly quadrupled its production figures (Fishstat Plus, 2006). Panama's production figures, however, are probably only a fraction of what its fleet catches because the country is one of the three world leaders in providing cover to the practice of Illegal, Unreported and Unregulated fishing.²⁴

Along with Honduras and Belize, Panama offers what is known as an open register for fishing vessels. An open register is one that imposes no nationality or citizenship requirements on vessels wishing to fly its flag (High Seas Task Force, 2006). Also known as *flags of convenience* these countries are perhaps better described as offering *flags of non-compliance*²⁵ because they refuse to take responsibility for the conduct of the vessels registered under their flag and snub international efforts to regulate and control over-fishing. As of 2005 Panama had a total of 222 large-scale fishing vessels under its register, just behind Belize's 241 and the 416 of Honduras, the world leader (High Seas Task Force, 2006).

IUU fishing involves a highly complex series of activities but in general it tends to focus on high value species that end up being traded in the international market place. As a major facilitator of IUU fishing, Panama therefore has an interest in seeing the international rules on the trade in fish, especially those relating to rules of origin and labeling, relaxed as much as possible.

The objective of the fish sectoral

The objective of the fish sectoral initiative was straightforward: the comprehensive elimination of all tariffs, and allegedly unjustified non-tariff barriers, affecting fish and fish products (WTO, 2006).²⁶

The proponents pitched the initiative as a meaningful response to the Doha mandate to eliminate tariffs, tariff peaks, and tariff escalation on products of particular export interest to developing countries. With a view to addressing tariff escalation they proposed the widest possible product coverage. In keeping with the understanding that had been reached in the broader NAMA negotiations, participation in the sectoral was to be non-mandatory, and they proposed a critical mass of countries representing 90 percent of world fish trade as the participation benchmark for success.

The fish sectoral commitments to eliminate tariffs would be phased in no later than the final implementation of the tariff reductions agreed to in the broader NAMA negotiations. As far as Special and Differential treatment for developing countries, they proposed a zero for x tariff reduction scheme. While developed countries would have to completely eliminate their tariffs by going to zero duties, developing countries would only be required to reduce theirs to an undetermined x value. However, they would have to adopt the sectoral's x value or the formula-determined value from the broader NAMA talks, whichever was lower. As further special and differential treatment they also proposed longer implementation periods for developing countries. They identified the complexity and lack of transparency of non-tariff barriers as an additional burden for the trade in fish, particularly for developing countries without the technical capacity to meet various requirements, but indicated that no specific NTBs had been identified for negotiations. Lastly, they proposed that the negotiations proceed at a pace that would allow for each member to incorporate their new fish tariff rates into their draft schedule of commitments by July 31, 2006.

²⁴ Singapore is not lily-white on the question of IUU fishing either as it hosts the administration of Mongolia's open registry which advertises no restrictions on crew nationality, imposes no taxes and claims to be able to issue registrations "within the hour" (High Seas Task Force, 2006).

²⁵ Term used by delegates at the UN Conference to review the Agreement for the implementation of the provisions of the UN Convention of the Law of the Sea, May 22-26, 2006.

²⁶ The initiative also proposed to address non-tariff barriers specific to fish but as of mid-May 2006 none had been identified (WTO, 2006).

Assessing the sectoral process

Because the Doha Round is a single undertaking, the fish sectoral initiative - like the NAMA negotiations under which they were carried out - was suspended when the talks collapsed at the end of July 2006.

It is difficult to assess how much progress was being made towards the objective of completely eliminating tariffs in the fish trade, since the WTO negotiations are carried out in private amongst the members and are not accessible to independent outside observers or non-governmental organizations. The small number of countries that had formally signed on to the proposal would seem to indicate, however, that the initiative was far from the critical mass of countries representing 90 percent of world trade in the sector. This threshold would be impossible to reach without the participation of all three big importers (EU, Japan and US), none of which participated in the discussions, although the US indicated privately that it was not opposed to the direction of the proposal. The EU position was that it wanted agreement first on the overall NAMA formula before engaging in sectoral initiative negotiations; but they had by no means ruled out participation.

Developing countries, especially those from the ACP group, were cool to the initiative because of the potential erosion of their preferential treatment in the EU market that tariff elimination or significant tariff reduction would entail. (See Box 3 – Preference erosion.)

Privately, several negotiators indicate that the momentum of the single undertaking would have been overwhelming had there been a broader NAMA agreement on tariff reduction and an agreement in the agriculture negotiations. If that scenario plays itself out, e.g. if an outline deal is agreed by April 2007, there will be tremendous pressure to reach agreement in some of the more 'minor' negotiations of the Round like the sectorals in fish and forestry.

With the talks now suspended it is unclear what the next steps will be. There is some talk, however, that initiatives like the fish and forestry sectorals might be revived under less ambitious negotiations ("Doha lite") and private talks and consultations continue unabated. One thing is clear, however: the commercial interests behind complete liberalization of trade in fish and fish products will not disappear, and will continue to be a factor in any future resumption of global trade negotiations as well as in ongoing and future bilateral and regional negotiations. (See Box 4).

BOX 4

What's next?

The Doha negotiations are not dead; they are "suspended". Whether they are revived or not depends to a high degree on political developments in the United States. The Bush administration's authority to "fast-track" a new trade deal runs out in June 2007. "Fast-track" means that the US Congress can only accept or reject a complete trade deal. It is the American equivalent of the WTO's "single undertaking" and prevents Congress from "cherry picking" by, for example, only agreeing to the NAMA negotiation result, but not to the one on agriculture.

Some observers believe a deal is still possible in 2007, if an outline agreement is reached by April 2007. There is currently much quiet diplomacy happening worldwide, in order to establish if such a revival of the talks is possible. Some negotiations were also quietly resumed in November 2006 (Khor, 2006a). Given the importance of agricultural subsidies to the US farm constituency, politicians do not want these subsidies to be an election issue. Indeed, there is some speculation that the US accepted a suspension of the Round in July 2006 in order to avoid the WTO becoming an issue in the mid-term congressional elections in November 2006. The intentions of the Democrat-controlled Congress are as yet unclear (Financial Times, 2006). However, if an agreement is not reached by April 2007, then the Round is likely to remain suspended for quite some time – probably until 2009 or later.

But that does not mean that the process of trade liberalization will not continue. As has been the trend since the early 1990s, bilateral agreements are being pursued by the main trading powers alongside their activities within the WTO. This trend is not new; and it will certainly continue. From a fisheries perspective, recent EU bilateral agreements provide some indications of what such future deals may look like.

According to the Coalition for Fair Fisheries Arrangements, under recent EU reciprocal free trade agreements with countries that have important fisheries resources, particularly South Africa and Chile, the liberalization of trade in fisheries products has been conditioned to the opening up of third country waters to EU fleet access through investment.

- In the South Africa-EU Trade, Development and Cooperation Agreement (TDCA), an explicit link is made between the liberalization of trade in fisheries products and the signing of a fisheries access agreement, making it clear that the elimination of EU tariffs on South African fisheries exports will only come into effect once a fisheries agreement with the EU has been concluded.
- The Chile-EU Association Agreement, signed in November 2002, contains provisions for the liberalization of trade in fishery products on a reciprocal basis. In addition to the elimination of tariff barriers, there is a separate Protocol on Fishing Enterprises, which sets out provisions under which the European owners investing in Chilean companies may register their vessels, buy licenses and quotas, and transfer vessels to Chile. (These provisions are reciprocal.) (CFFA, 2006)

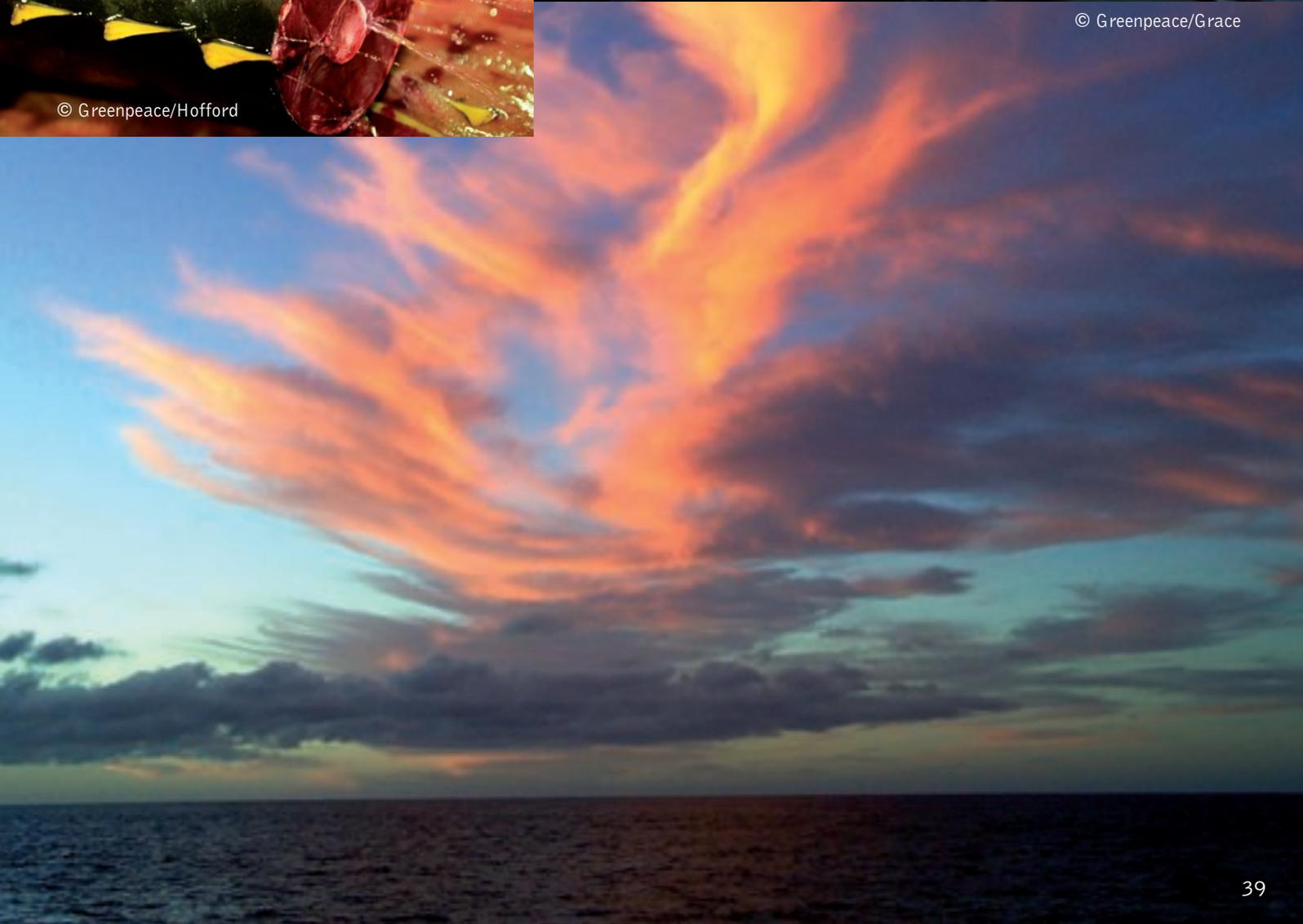


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The theoretical impact of trade liberalization

The logic of trade liberalization rests on the early 19th century economic theories of comparative and absolute advantage, i.e. that efficiency flows from an international division of trade based on what countries do best, based on certain advantages - natural or otherwise - they have over their trading partners and competitors. According to the theory: if every nation focuses on producing what it does more efficiently than others and trade is free amongst all nations, then the general welfare of all will rise.

Tariffs are anathema to liberal economic theorists because they interfere in markets and keep them from attaining the levels of efficiency that the free flows of goods and services based on comparative advantage provide. From the classical liberal (or neo-liberal) perspective, tariffs prop up and maintain inefficient production at the importing end and impede the full development of efficient production at the exporting end.

Liberalization theory assumes that there is a pent-up potential of under-utilized and more efficient production waiting to be released when tariff walls fall. While this may be the case in the production of some manufactured goods, it is certainly not the case in fisheries.

In world wild capture fisheries there is absolutely no room for sustainable increases in production in almost all areas.

As described above, 77 percent of the stocks are either fully exploited - i.e. with no room for further expansion - or in even worse shape: over-exploited, depleted or recovering.

This leaves only 23 percent of assessed stocks, in the "under-" or "moderately exploited" categories. These are the only stocks, that have some potential for sustainable growth, provided they were to be managed sustainably.²⁷

If the potential for wild capture fisheries growth is extremely limited in overall quantitative terms, it is even more limited in qualitative commercial terms. After 55 years of industrial fishing there are reasons why certain stocks remain under- or moderately exploited; they are less appealing to markets for intrinsic reasons and cannot substitute for the more sought-after over-fished stocks. For example, Canada may have an abundance of under-exploited silver hake, but it is a species for which there are limited markets and it won't substitute for declines in lobster landings, a valuable export.

Tariff liberalization's impact on wild capture fisheries

So, if sustainable production levels of most commercial stocks have either been reached or surpassed what will happen to wild capture fisheries if markets are liberalized through tariff elimination?

This question was asked and answered by the Organization for Economic Co-operation and Development's Committee for Fisheries (OECD) in a major study of the effects of fisheries trade liberalization, published in 2003 (OECD, 2003).

The study's main conclusion was that further liberalization of trade in fish and fish products, particularly through the reduction/elimination of tariffs will only bring lasting benefits to *two* OECD fish exporting countries (New Zealand and Iceland) that have "effective" domestic fisheries management regimes.

According to the study's modeling, these countries should be able to withstand the pressure to increase supply beyond sustainable levels that tariff reduction/elimination will

²⁷ It represents an even smaller percentage of overall commercially fished stocks since fisheries managers don't have enough information to make assessments of 24 percent of all identified stocks, representing about 20 percent of world capture landings (FAO, 2005).

undoubtedly unleash. While there may be limited increases in production from efficiently managed fisheries in these countries, the main benefits besides increased prices to producers will be increases in the value of their privately held fishing quotas.

According to the OECD, outside of these two countries, their fishery quota holders and consumers in importing countries, who should see less expensive products, no others will derive sustainable benefits from liberalization because the conditions for mutual benefit – effective fisheries management at the exporting and importing end - simply do not exist.

However, the OECD's criteria for effective management is highly skewed towards systems predicated on the questionable merits of privatized access rights through tradable individual quotas. New Zealand and Iceland are singled out because they are the two countries that have gone the furthest down the fisheries privatization road prescribed by the OECD for all its members.

However, the OECD's confident assertions about the effectiveness and sustainability of New Zealand's privatized management scheme do not stand up to objective assessment.

According to a recent study (Wallace & Weeber, 2006), under New Zealand's privatised quota scheme all but two of its orange roughy stocks have been fished well below legally established sustainable levels. In one case, a stock has been fished down to three percent of its unfished biomass and in another down to seven percent. The study also documents how quota owners, rather than being advocates for conservation, consistently resist moves to reduce fishing levels and other conservation initiatives. New Zealand's fisheries management also fails to meet socio-economic sustainability criteria. Under privatised quota management, fish companies are unable to attract New Zealand labour to work on their boats because they offer only minimum wage. According to the New Zealand Maritime Union, quota holders are getting around this problem through joint ventures with fishing vessels from low-wage countries. This in turn has led to an alarming increase in foreign crewmembers jumping ship in New Zealand ports because of non-payment of wages and in some cases physical abuse; a situation which the Union says is symptomatic of what is going on across the industry (RNZ, 2006; Newstalk ZB, 2006).

While the New Zealand experience undermines the OECD assertion about the effectiveness of privatized fisheries management schemes, that is not to say that other OECD fish-exporting countries that take their fisheries management seriously and use a variety of management means - like Canada or Norway for example – won't be able to keep over-fishing under control, provided they have the political will to do so.

While the OECD's criteria for effective fisheries management are highly debatable its modeling exercise is extremely revealing of the impacts of tariff liberalization on poorly managed fisheries.

The logic behind the OECD's liberalization model is that cuts in tariffs will be translated into a change in price, with higher prices for producers in the exporting country and lower prices for consumers in the importing countries.

As the OECD explains, in most market situations price stimulation leads to increased production and supply except in wild fisheries, where increased effort will only lead to increases in supply until the maximum sustainable levels of production are reached. If effort continues to increase beyond sustainable levels, supply begins to drop and the fishery sooner or later goes into its classic downward spiral of increasing inputs and decreasing outputs.

Under an ideal management system with strict enforcement and total compliance, fisheries would reach their level of maximum sustainable output and any market stimulus to overproduce would be held in check by the management regime.

But this highly idealized situation does not exist in reality. What is useful about the OECD modeling, however, is that it also predicts what will happen under situations where fisheries are poorly managed or operated under open access situations; conditions that exist in all too many of the world's fisheries today, especially in the developing world.

For a fish exporting country the OECD study says: *"The long-term effects of market liberalization will be catch declines, reduced trade and a loss of welfare as the higher prices faced by the exporter will be translated into an increased effort and hence over-exploitation"*.

For the importing country it says: *"The opposite holds true i.e. fish stocks recover (as it is cheaper to consume imported fish than home produced) and domestic catches may ultimately increase following recovery. However, the outcome for the importing country assumes that both capital (vessels) and labour are malleable and can easily move out of the fishing industry into other occupations. If no other fishing opportunities are found, depending on the fisheries management regime, it is more likely, as suggested for the exporting country, that vessels/fishers will continue to fish and even increase harvesting pressure to compensate for lower prices in the short term, and thus a situation of over-exploitation will develop or continue"* (OECD, 2003 p. 24).

Tariff liberalization's impact on aquaculture

While the OECD's study deals primarily with the effects of tariff reduction on wild capture fisheries, it also offers an opinion on its impact on aquaculture. It predicts that the lowering of tariffs will stimulate aquaculture production, which, in turn, will increase pressure on government regulation, lead to more demands for suitable sites, and increase competition for feed compounds (OECD, 2003). Because of the issue of feed compounds, any stimulation of aquaculture production will have a knock-on effect on wild fish production and food security. The two most highly traded farmed species, shrimp and salmon, help to illustrate why.

Together with their wild cousins, farmed shrimp and salmon make up 27 percent of all fish exports. They were the two export-oriented aquaculture boom fisheries of the 1980s and 1990s.

BOX 5

One person's "trash" is another person's dinner

The aquaculture industry is highly dependent on *aquafeed* compounds made up of fishmeal and fish oil, derived by the rendering of pelagic species (anchovies, mackerel, herring, caplin) and what the fishing industry pejoratively calls *trash fish*, i.e. low value or damaged fish that normally is not destined for human consumption. While the notion that some marine life is garbage is profoundly un-ecological it is also a relative notion in a hungry world. In most countries in Asia and the Pacific almost all of the fish that is caught is consumed locally as part of household food security, with nothing wasted and a lot being converted through drying, fermenting and salting into a very wide range of human food products (FAO, 2004).

The farming of high-value carnivorous species like shrimp and salmon not only consumes more fish than it produces (see Food Conversion Rates opposite) but it consumes the kind of fish that are vital for the food security of the world's poor.

It is estimated that China's marine fish farming now consumes about 4 million metric tons of "trash" fish a year over and above its fishmeal inputs.

(See Kleih et al, 2006; specifically: [http://www.sia-trade.org/wto/FinalPhase/FR_APP1_Chi\)na_CS_May_06.pdf](http://www.sia-trade.org/wto/FinalPhase/FR_APP1_Chi)na_CS_May_06.pdf))

Farmed shrimp grew from less than 10,000 metric tons in the early 1970s to more than 1 million metric tons today, and now accounts for approximately 25 percent of world shrimp production. (Capture fisheries account for approximately 3 million metric tons.) (Tacon, 2002). The growth of farmed salmon production was even more spectacular. From a little over 7,000 metric tons in 1980 it reached the 1 million metric ton plateau in 2000.

Both farmed shrimp and farmed salmon have numerous sustainability problems. These include environmental degradation, bio-diversity issues, and food safety concerns related to pesticides and pharmaceutical residues etc. In addition to all of this, they are also net consumers of wild fish because of their total dependence on feed from fishmeal and fish oil that come from the wild capture fisheries.

Farmed shrimp has what is known as a Food Conversion Ratio (FCR) of 2.08, that is to say that it takes 2.08 kilograms of fish (pelagic wet weight) converted to fishmeal to produce 1 kilogram of farmed shrimp (Tacon, 2002).

At 3.5, the FCR for farmed salmon is even higher, i.e. it takes 3.5 kilos of wild fish converted to fishmeal and oil to produce 1 kilo of farmed salmon (David Suzuki Foundation, no date). The food conversion ratios for other carnivorous farmed species that have high commercial value (e.g. cod, halibut, bass, bream, grouper) and whose farmed production is increasing is even greater (IFOMA, 2001).

For the production of farmed carnivorous marine species to increase, therefore, at least one of three things has to happen: overall fish meal production has to increase, or aquaculture has to increase its share of existing production, or a substitute to fishmeal has to be found.²⁸



²⁸ Carnivorous aquaculture is even more dependent on fish oil and its share of overall production is estimated at 77 percent. It is very unlikely that a substitute will be found for fish oil (IFOMA, 2001).

While there is some room for aquaculture increasing its overall share of existing fishmeal production – at present it consumes about 45 percent of all fishmeal and most of the rest goes to the swine and poultry industries (IFOMA, 2002) - there is no possibility of sustainably increasing overall fishmeal production.

For the last 15 years world fishmeal production has been relatively stable, mostly fluctuating between 6.3 and 7 million metric tons. This corresponds to wild fish landings of between 31.5 and 35 million tons as the generally accepted conversion ratio for fishmeal from wet fish is 5:1 (Tacon 2002; David Suzuki, no date).

BOX 6

Thailand's environment: the long-term loser!

Thailand is the world's second largest producer and the world's largest exporter of farmed shrimp. Almost all of this is sold to the US, where Thailand supplies 30 percent of the overall market.

In contrast Thailand exports very little shrimp to the EU where it only has a 3 percent market share. This is due to the fact that until very recently, Thailand's shrimp faced high EU import duties making it more expensive than imports from ACP countries and GSP qualifiers like Brazil. Recent changes to the EU's tariff schedule for shrimp, however, have changed all this.

Under a new arrangement for 2006 the duty on raw Thai shrimp entering the EU market fell from 12 percent to 4.2 percent and the duty on processed shrimp was cut from 20 percent to 7 percent. It is expected that this will lead to substantial increases in Thai shrimp exports to the EU with some producers anticipating that exports could more than triple in 2006. The early 2006 export data from the Thai Ministry of Commerce apparently confirms this, as there are dramatic increases in exports to Germany, Belgium and the UK.

The change in tariff levels on Thai shrimp clearly shows how tariff levels can influence supply from a given country, as the new lower EU tariff rates revert Thailand to the situation it was in until 1999 when its shrimp exports to the EU were five times higher.

It is not clear whether the change in tariffs will lead to trade diversion or increased shrimp production in Thailand. The consequences for the environment, however, are severe. According to the EU Sustainability Impact Assessment of the WTO's negotiations, aquaculture is the fisheries sector most threatening to the Thai environment. Shrimp aquaculture is associated with loss of productive agricultural land (rice paddies), coastal pollution and the spread of disease in shrimp farms.

The assessment concludes that while tariff cuts will be good for exports, Thailand's environment will be the principal longer-term loser in the trade process, with coastal zone eco-systems and wetlands coming under particular threat.

Source: Kleih et al, 2006,
in particular: http://www.sia-trade.org/wto/FinalPhase/FR_APP8_Thailand_May_06.pdf ,
accessed November 23, 2006.

This is roughly one third of all reported wild capture fisheries production and in historical terms twice the total amount of fish that was landed in 1950. There is no room for increasing this production without negative impacts on both the state of the world's fish stocks and food security for the world's poor, since it is the pelagic species that are turned into fishmeal and pelagics that the poor in many developing countries eat to survive (see case studies on Senegal and Mauritania below).

Shrimp and salmon aquaculture is therefore in direct competition with pigs, chickens and the world's poor for food. While the production figures for fishmeal indicate stability during the phenomenal growth years of aquaculture, there is evidence that more fish went into fishmeal production in the 1990s than was reported, as the FAO attributes the estimated sharp declines in discard rates in part to the retention of discards in Asia for the aquaculture industry (Kelleher, 2005).

The question of fishmeal substitution is equally if not more troubling. The aquaculture industry has been researching plant-based alternatives to fish protein for two decades now, without much success. But it is eyeing another possibility: the use of rendered animal parts, because of the availability of 60 million metric tons of animal meal. They are also hoping that by creating a new food chain and crossing the species barrier from warm-blooded terrestrial animals to cold-blooded marine ones, they won't also transmit bovine spongiform encephalopathy , BSE (Tacon, 2002).





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The lived experience of liberalizations past

Theoretical modelling is not the only way to assess the impacts of trade liberalization. Recent history also provides examples of what happens when a country embarks on an export-oriented fisheries strategy as a result of policy incentives like tariff elimination.

In these cases the practise confirms the theory. **Trade liberalization in fish in a context of weak or non-existent fisheries management is a recipe for rapid resource depletion and impoverishment for the exporting country.**

Several case studies point this out unequivocally.

Mauritania: a case study in impoverishing growth

Mauritania is a thinly populated northern Africa country (2.6 million inhabitants) bordering on the North Atlantic Ocean between Senegal and Western Sahara. According to the United Nations Development Programme's (UNDP) latest Human Development index - which measures achievements in terms of life expectancy, educational attainment and adjusted real income - it is one of the poorest countries in the world (152nd on a list of 177). It also has a large accumulated foreign debt, which now stands at approximately 3 times the annual value of its exports (CIA, 2006).

Mauritania is also high on the FAO list of low-income food-deficit countries (LIFDC) but fits the profile, discussed above, of those poor countries that have huge surpluses in their fish trade. While in 2004 Mauritania had an overall trade deficit of 340 million US\$ (CIA, 2006) its fish trade surplus was huge: exports totalled 122 million US\$ while imports were a paltry 8.2 million US\$ (Fishstat Plus, 2006).

While Mauritania is a dry, arid country with only 0.2 percent arable land, it is blessed with a rich and productive marine environment because of major upwellings along its coast; a natural phenomenon that contributes large amounts of nutrients to the ecosystem. It is especially endowed with high value demersal species, both groundfish and crustaceans and also valuable cephalopods, mainly octopus.

The story of how Mauritania has been encouraged to exploit these resources to offset its balance of trade problem is a terrible indictment of the trade liberalization process in fish.

Under the provisions of the Lomé Convention, Mauritania gained duty-free access to the EU for its fish exports. In 1987 it also signed a Fisheries Agreement (FA) with the EU thereby granting European vessels access to its waters in exchange for cash payments (Chérif, no date).²⁹ In 1995, the government further liberalized the fishing sector by eliminating its trade monopoly in fish and signed a new agreement with the EU that ended the national fleet's exclusive rights to the valuable cephalopod (mainly octopus) resources. (PNUE, 2006)

In addition to the EU distant water fleet the government also allows fleets from Japan, Russia, China and different West-African countries to fish in its waters.³⁰ Under separate arrangements, Mauritania's fisheries products also have privileged access to the Japanese market and the US.

²⁹ Duty-free access to the EU market for ACP fish products and EU distant water fleet access to the ACP fish resources are linked, in part, through detailed rules of origin that virtually oblige ACP countries to enter into fisheries agreements with the EU especially in the tuna trade (Personal communication, Béatrice Gorez, CFFA).

³⁰ The Chinese fishing presence in Mauritania exerts particularly strong pressure on its resources. There has been a heavy presence of Chinese vessels in Mauritanian waters since at least the early 1990s and a recent study says there are more than 109 Chinese vessels now fishing under the Mauritanian flag (Personal communication, ICSF).

As a contribution to the Doha Round process, in 2006 UNEP released the results of a major study it commissioned to assess the impact of Mauritania's experiment with trade liberalization in fish. The report is an unambiguous condemnation of the process. It concludes that the stimulation of fish exports through multilateral liberalization of trade and preferential trade agreements amounted to "impoverishing growth" for Mauritania, its people and its environment. The report's assessment is clear: liberalization has unleashed "abusive harvesting" of Mauritania's fisheries, "ecological dumping" and a "sell-off" of its natural resources (PNUE, 2006).

The report paints a horrific picture of ecological waste and destruction.

- The majority of Mauritania's once plentiful demersal species (the full array of groundfish, octopus, squid, lobster and crabs) are now over-exploited. The over all stocks of sharks and rays are in danger of, or heading towards, extinction and some formerly abundant species have disappeared from Mauritanian waters.
- Foreign and domestic fleets (industrial and artisanal) are all seriously over-fishing, especially for valuable near-shore species, and over-fishing has reached such a level that it is having an impact on the overall eco-system.
- The levels of discarding and dumping of by-catch by industrial shrimp trawlers and groundfish draggers indicates "a general acceptance of a production system that wastes living things".³¹ Ray discards are so voluminous they are polluting the marine environment and affecting the behaviour of other species.
- While the artisanal cephalopod fleet uses gear that is very selective (hand line and pots) and has virtually no by-catch, it is constrained to a very small band of coastline. This geographical concentration of the fishing effort is leading to negative impacts on the health of the ecosystem.
- Overall over-fishing is reducing marine bio-diversity through both excessive fishing mortality on target species and through by-catch, and there has been a noticeable drop in mean trophic levels with species higher up the food chain disappearing first.
- The by-catch in the shrimp trawl fishery is equal to 80 percent of the shrimp landings and in 1998 represented an economic loss of 10 million US\$, more than the landed value of the shrimp and equivalent to 10 percent of the total value of Mauritanian fish exports. While by-catch limits are stipulated in foreign fishing agreements there are no on-board observers, and foreign vessels land in Spanish ports making control/verification impossible.
- Only two species show signs of increased abundance - one because the end of a bilateral fishing agreement with neighbouring Senegal led to a drop in fishing effort.
- Shrimp landings and biomass seem stable, in part because of a drop in predation from overfished groundfish species.
- Food security is worsening because both national fleets (industrial and artisanal) now concentrate their efforts on the more valuable export species, abandoning fisheries for locally consumed pelagics thereby reducing local market supply and driving up prices.
- The Mauritanian Fisheries Department is highly dependent on the EU fisheries agreements for core funding, which places it in a catch-22 situation: it can't meet its objectives without funding but its funding is dependent on letting in foreign fleets which undermine its objectives!

³¹ Translated from the French "gâchis du vivant".

- The national government continues to face intense international pressure to sell off its fisheries resources to meet minimal economic growth demands linked to the World Bank and IMF Poverty Reduction Strategy Papers (PRSP).³² In this context its Fisheries Partnership agreements respond to the government's immediate financial needs and the development of its own fisheries and the biological status of the stocks do not carry much weight in its decision-making.

The study also commented on the Doha Round's NAMA negotiations and offered an opinion on the impact of tariff reduction on Mauritania. It estimated that because of preference erosion Mauritania's incipient pelagic processing industry (sardines and tuna) would not be able to survive the competition from Asian processors (Thailand and Philippines) in the EU market. Furthermore it forecasts that Mauritania's debt servicing and foreign exchange needs are such that it would have to fish and export more to compensate for the drop in earnings that will inevitably come from its inability to compete with cheaper Asian products as it loses tariff preferences.

In light of the report's devastating findings and because of Mauritania's newfound petroleum resources, it had been hoped that the government would not renew its Fisheries agreement with the EU, which expired in 2006.

However, the direct contributions the Mauritanian government receives from the EU under its Fisheries agreements represent 30 percent of the government's total budget and almost all its non-fiscal revenue (PNUE, 2006).

On July 27, 2006 the Mauritanian government renewed its fisheries partnership agreement with the EU, the same day it adopted a budget amendment for the fiscal year. The new agreement will contribute 86 million Euros to the Mauritanian treasury, the same amount as under the previous agreement (2001-2006).



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³² Poverty Reduction Strategy Papers (PRSP) are exercises promoted by the World Bank and the International Monetary Fund and bilateral donor countries that encourage export-led growth supposedly to reduce poverty. Countries' papers are on the IMF website <http://www.imf.org/external/np/prsp/prsp.asp#M>; the last Poverty Reduction Strategy Paper for Mauritania (Progress Report for the Islamic Republic of Mauritania) is of October 10, 2003 (see <http://www.imf.org/external/pubs/ft/scr/2003/cr03316.pdf>, accessed on October 21, 2006).

BOX 7

Feeling the NAMA squeeze in the Philippines

Community-based artisanal fish harvesters from the Philippines have consistently voiced their opposition to the NAMA process. In July 2006 they even traveled to Geneva where they built a small flotilla of their traditional fishing boats and led a colorful “fluvial protest” to the WTO headquarters on Lake Geneva.

The fishing sector in the Philippines directly employs 1.6 million people, mainly subsistence artisanal harvesters, and provides livelihoods for an estimated household population of 6 million.

The Philippines export only 6 percent of their total fisheries production with the main exports being tuna, shrimp and seaweed. It is the NAMA impact on fishery imports, however, that has the Philippines’ artisanal fish harvesters worried. Fish imports into the Philippines are presently relatively small because of a domestic regulation that restricts them to supplying canneries and processing plants and prohibits imported fish from being sold into the domestic market.

Despite this regulation, smuggled fish from subsidized Taiwanese and Chinese industrial vessels still finds its way into the domestic market where it competes with artisanal production. Filipino artisanal fish harvesters fear that the NAMA process will not only cut tariffs on fish imports but weaken the Philippines’ laws that keep subsidized and unsustainably produced foreign fish from flooding their market. They point to what happened to Philippines agriculture to show how tariff reduction undermines the livelihoods of small-scale producers. Under the Uruguay Round concessions, the Philippines cut tariffs on agricultural products and since the late 1990s has had a growing deficit in agricultural trade. The biggest problem is the dumping of subsidized corn and rice from the US, which enters the Philippines at 1/2 and 1/3 the costs of local products.

The Philippines lacks a serious fisheries resource management system and is largely unable to prevent foreign fishing vessels from poaching in its waters and its own industrial fleet from encroaching on artisanal fishing grounds. What the Filipino artisanal harvesters see in NAMA is a process that will squeeze them out of a livelihood by intensifying unsustainable forms of aquaculture production and industrial fishing for export while allowing subsidized imports to flood their market.

Source: Bernardino, Naty, 2005.



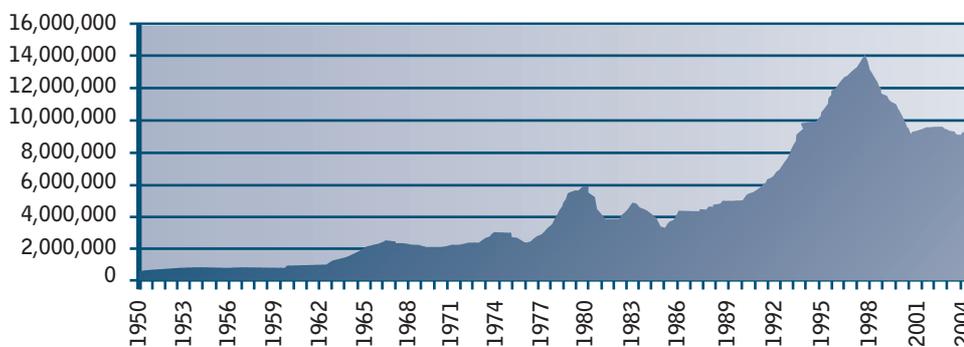
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Argentina: a case study in the externalization of costs

Argentina offers a good contrast with Mauritania in terms of the impact of fish trade liberalization on countries of very different size and relative wealth. Argentina ranks 34th on the UNDP's Human Development Index, in the "High" category ahead of several European countries (Poland, the three Baltic states, Slovakia and Croatia). It is a populous country, (39.9 million inhabitants) with a highly literate population (97.1 percent), rich natural resources, a highly developed export oriented agricultural sector and a diversified industrial base. It also has close to 5,000 kilometres of coastline and close to 1 million square kilometres within its Exclusive Economic Zone (EEZ). (CIA, 2006; UNEP, 2002). Argentina is a net fish exporting country. In 2004 its exports were worth 816.5 million US\$ and imports a mere 47.6 million US\$ making for a very healthy balance of 768.9 million US\$ in fish trade.

Like Mauritania, it too was ushered down the fish trade liberalization path in the 1990s by the EU and multilateral lenders as a means of addressing the government's fiscal crisis and chronic economic instability.

Figure 9.
Argentina Landings (MT)

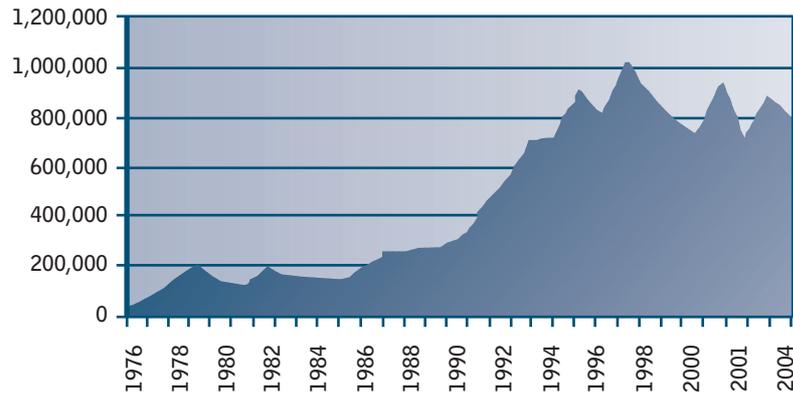


Argentina is not a traditional fishing nation. Rather it is a nation of proud red meat eaters. Domestic industrial fishing first began to emerge in the 1960s, off the Province of the capital Buenos Aires, and by the 1970s had extended south into Patagonia. During this period there were peaks of intense fishing linked to agreements signed with the former Soviet Union, but going into the 1990s Argentina had what was considered an under-exploited fisheries resource base. What fishing took place went to supply the small domestic market. Its fishing policy up until that point was also highly nationalistic with policies in place to keep fishing in Argentine hands (UNEP, 2002).

In 1991 Argentina, under International Monetary Fund (IMF) guidance, adopted a series of macro-economic measures meant to stabilize the economy and foment growth. The plan included privatisation of public utilities, deregulation of numerous economic activities and markets and progressive liberalization of foreign trade (UNEP, 2002).

As part of this new thrust, in 1994 Argentina signed a fisheries agreement with the EU. The agreement differed from those the EU signed with its West African partners under the Lomé Convention in that instead of direct EU fishing it encouraged subsidized joint ventures between European and Argentine firms. The differences appear to have been mostly cosmetic as European vessels registered under the Argentine flag as joint ventures or as "temporary companies" (UNEP, 2002).

Figure 10.
Argentine Fish Exports



In any event the results were the same as in West Africa. Within a few short years, the fisheries sector was in severe crisis. Argentina embarked on an export-led exploitation of its fisheries resources with “enormous deficiencies” in its fisheries management system, which, combined with “serious suspicions of bribery and corruption” (UNEP, 2002), were the perfect recipe for disaster.

As Figures 9 and 10 show, beginning in the early 1990s at the start of the liberalization process Argentina’s landings and exports of fish began a steep climb. Landings increased by 78 percent from 1990 to 1994 and then jumped another 38 percent by 1997 when they hit the astounding figure of 1.38 million metric tons (Fishstat Plus).

Increases in fish exports were even more prodigious, leaping by 131 percent from 1990 to 1994 and then moderating to the relatively more modest rate of 41 percent through to 1997 when they topped the 1 billion US\$ mark and eclipsed beef³³, the country’s traditional food export (Fishstat Plus, UNEP, 2002).

What is even more surprising is that just one species, Argentine hake, contributed almost half of this performance making up between 46 and 48 percent of all Argentina’s reported landings during the mid-1990s, reaching an impressive 600.000 MT in 1996 (Fishstat Plus). Of course, this couldn’t last. By 2000 Argentina’s recorded hake landings dropped to 193.700 MT, a 68 percent decline from the high point in 1996 (Fishstat Plus).³⁴

Most of this information comes from another study in the series UNEP undertook on the liberalization of the fish trade that documents the degradation of Argentine hake and other overexploited resources during the fishing frenzy of the 1990s.



³³ Beef exports that year were just over 800 million US\$ (UNEP, 2002).

³⁴ Recorded landings show Argentine hake increasing in subsequent years to over 400.000 MT in 2005, however no analysis of these numbers is available other than the FAO statement in 2005 that Argentine Hake resources were still in decline (FAO, 2005).

The report says that there is no argument from any source that the fishery resources of Argentina have not been overexploited, and it points to gross deficiencies in the management regime and the un-selectivity of trawl gear in terms of size and age as the main causes.

For example:

- For three successive years (1997-1999) hake fishing greatly exceeded the government-established total allowable catch (TAC). For 1997 the TAC was set at 395.000 mt, yet reported landings were 584.000 mt, a 47 percent overshoot. But even this impressive figure is probably less than what was really caught. Because of by-catch, discards and unreported catch the 1997 catch is estimated to have reached 834.000 mt, 111 percent higher than what was allowed.
- In 1998 the TAC was lowered to 289.000 mt, yet reported landings overshoot again, reaching 314.000 mt or 34 percent more than what was legally permitted.
- In 1999 with landings in sharp decline the TAC was lowered to 238.000 mt, but again fishing continued well beyond this cutoff, reportedly reaching 314.000 mt.
- The same pattern is reported for the blue whiting fishery with the TAC being exceeded by 26 percent in 1998.
- Because the Argentine fisheries relied heavily on trawl gear, discard rates were especially high and estimated at between 55 to 62 percent of reported catches. This translated into an estimated discarding of 300.000 mt of fish annually, most of it comprised of juveniles.
- By 2002 a total of 6 Argentine stocks were considered endangered (Argentine hake, blue whiting, Croaker, Patagonian toothfish, red porgy and southern hake).

Like the study on Mauritania, the report is caustic in its assessment of the impacts of liberalization. However, the study brings something new to the impact analysis of liberalization by attempting to estimate the costs of over-fishing to Argentine society.

Using Cost Benefit Analysis based on broad assumptions, it concludes that the main beneficiaries of the policies of the 1990s were the private fishing firms (profits of 1.6 billion US\$) and fish workers (salaries of 1.4 billion US\$) with very low net benefits to the Argentine treasury of 50 million US\$, and an enormous social loss for future generations of 3.5 billion US\$. If there is no recuperation of the hake biomass this loss increases to 5.6 billion US\$.

The liberalization of fisheries trade in Argentina in the 1990s occurred under conditions of extremely weak fisheries management and the absence of even basic measures of royalties and fees that could have exerted some pressures for restraint on the resource exploiters. The end result was a gold rush mentality as fish companies discounted the future value of Argentina's fisheries resources and took what they could while they could. Under these conditions, as the report concluded, *"The market is short sighted with respect to any concern for future generations and a sustainable environment"*.



Senegal: a case study in conflicting demands

Senegal is a poor West African country of approximately 12 million people bordering on the Atlantic Ocean and with Mauritania immediately to the north. Like its northern neighbour, Senegal is also ranked low on the human development list (157/177), is on the FAO's list of low-income food deficit countries and is a net fish exporter. In 2004 Senegal had an impressive net surplus in fish trade of 314.6 million US\$ within an overall trade deficit of 879 million US\$ (CIA, 2006). Fishing, therefore, substantially reduces a very large overall trade deficit for Senegal.

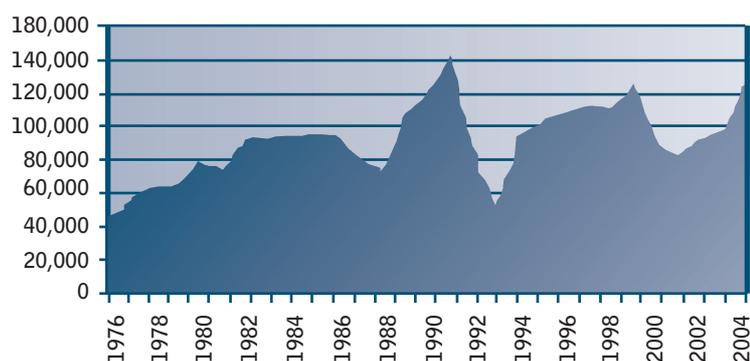
However, fishing is not only of export interest to the Senegalese. They are also great consumers of fish, annually eating on average 27 kg per person; more than twice the world average excluding China³⁵ and three to four times the average consumption for sub-Saharan Africa (UNEP, 2002; FAO, 2004; O'Riordan, 2006). Small coastal pelagic fish make up an estimated 75 percent of the population's animal protein needs (UNEP, 2002a), making fishing for food critical for Senegal's food security. These two factors - a strong export pull and very strong internal demand and consumption - are the two conflicting forces driving Senegalese fisheries production.

Export performance

The overall volume of Senegalese fish exports more than doubled from 1976 to 1991, when it reached an all-time high of 142.6 thousand metric tons. (See Figure 11)

There were several reasons for this. Initially the Senegalese government provided a series of direct subsidies to the fishing industry to encourage exports. Secondly in the 1980s Senegal, like Mauritania, signed a fisheries agreement with the EU and came under the preferential trading arrangements of the Lomé Convention, and its fish exports began to enter the EU market duty free. Lastly under a series of IMF-sponsored Structural Adjustment policies the Senegalese government provided the fishing industry with several advantages that stimulated exports (UNEP, 2002b).

Figure 11.
Senegalese Fish exports (MT)
(Source: FISHSTAT+)



In 1992, however, Senegalese fish exports went into free fall, dropping to 79 thousand metric tons, a 44 percent decline from the previous year. The Senegalese economy was stagnating under the weight of an overvalued currency. In 1993 they fell even further, dropping another 33 percent to 52.2 thousand metric tons. In discussions with the IMF, Senegal agreed to remedy the problem with a 50 percent devaluation of its currency.

Senegalese fish exports revived immediately, shooting up by 79 percent in 1994 and continuing to rise steadily until 2000. Although exports fell abruptly again in 2000 they have rebounded and, in 2004, stood at 130 thousand metric tons, very near the all-time high.

³⁵ FAO estimates annual Chinese fish consumption to be 27.7kg/per capita based on reported data (FAO, 2004-b).

Fish landings

Contrary to the ups and downs of fish exports, Senegal's fisheries production data shows very rapid year over year increases from the late 1980s to 1997 except for a slight dip in 1994. What is interesting in this data is that fish production did not contract during the years when export volumes dropped sharply. This suggests that strong internal demand keeps fishing pressure constant in Senegal irrespective of export demand.³⁶

The latest production data shows production hit an all-time high of 507 thousand metric tons in 1997, declined by 16 percent the next year and averaged around 436.9 thousand metric tons until 2004, the last year for which data is available.

This is not to suggest that all is well with the Senegalese fishery: quite the contrary. It is under serious stress as a result of very poor management and the conflicting demands placed on it to meet both Senegal's food security and balance of payment needs.

This is one of the main conclusions of a third UNEP study on the impact of fish trade liberalization (UNEP, 2002a).

Like the two previous UNEP studies discussed above (Argentina and Mauritania), it underscores the unsustainability of fisheries with very weak or non-existent management systems and high supply demands, particularly those that are export induced.

It points to Senegal's duty free access to the EU market under the Lomé Convention as a significant factor in the overexploitation of its demersal stocks, creating a conservation crisis in the Senegalese fishery and undermining the country's food security situation.

The study provides shocking details of over-fishing by both the EU industrial fleet - given access to Senegal's stocks under a negotiated fisheries agreement - and Senegal's domestic artisanal fleet that expanded considerably under the combined opportunities that open access and higher earnings from export fishing provided.³⁷

Some of its findings:

- There have been sharp declines over 28 years in the global catch rates for all species but those targeted for export are especially high, with some species threatened by biological extinction. Demersal species for export are being fished before they reach sexual maturity and average sizes of these continue to decrease.
- In the offshore areas intensive dragging (bottom trawling) and the use of illegal gear has depleted stocks, destroyed and changed marine habitat, eroded biodiversity and induced the ecological replacement of groundfish species with cephalopods (cuttlefish, octopuses and squid).
- Resource scarcity from over-fishing in the offshore areas leads trawlers to fish in inshore grounds causing similar habitat destruction and biodiversity problems (e.g. large red mullets disappearing because their aquatic plants habitat is destroyed).
- The worst infractions in the coastal zone are by the artisanal sector. Using un-selective gear in inshore spawning and nursery areas the artisanal sector is

³⁶ Although landings for pelagics, especially sardines, increased substantially during the two years when exports fell, an initial examination of the data suggests that landings for valuable export species did not decline significantly. More detailed examination of the data is necessary, however, to confirm this.

³⁷ In addition the Senegalese industrial fleet, composed mainly of boats from the EU (Spain) and China that have been "Senegalised" through reflagging, has also expanded significantly and now represents the biggest industrial effort in Senegalese waters as EU-flagged boats have diminished considerably since 2000. The Senegalese industrial fleet behaves much like the IUU fleets and has been repeatedly denounced by the on-board observers' trade union, the artisanal sector and NGOs (Personal communication Béatrice Gorez, CFFA).

undermining stock recovery by destroying large quantities of juveniles that would eventually migrate to the offshore areas.

- Because fishing for export is more profitable than fishing for the local market, the artisanal sector also targets export species. As in Mauritania, this increases the pressure on demersal stocks, and reduces the supply and increases the costs of pelagics for local consumption.
- Trade has also developed between the artisanal and industrial sectors. The artisanal sector supplies the industrial fleet with demersal species and buys the industrial fleet's by-catch for sale in the local markets. This has reduced both the supply and quality³⁸ of fish available in local Senegalese markets, undermining food security.
- Given that Senegal's artisanal fleet can fish all the resources available in Senegal's waters, the EU's Fisheries Partnership Agreement³⁹ violates the United Nations Law of the Sea (UNCLOS) provisions that limit foreign fishing in a country's EEZ to a complementary role, i.e. only to those stocks that are surplus to the host nation's capacity.

What emerges from this account is the picture of a country without the means to adequately protect its marine resources, squeezed by balance of payment problems and being encouraged to exploit its fisheries to the point of collapse.

Senegal, it appears, is expecting too much from its fishery. It must make both a major contribution to food security and help reduce the balance of trade deficit. However, without the means to develop a fisheries management regime predicated on the long-term conservation of its resources, Senegal runs the risk of placing its fishery in a position where soon it will not be able to accomplish either.



³⁸ Fish from the by-catch of the industrial fleet is not as fresh or as good quality as that landed by the artisanal fleet specifically for domestic consumption.

³⁹ The EU's fisheries agreements, recently relabelled as "partnership agreements", are a major contributing factor to overfishing in the waters of developing countries.



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Conclusion

The conclusions from this study are not difficult to draw. Both the theory and the practice of the liberalization of fish trade say the same thing: when fish trade is liberalized in a context of deficient management, or worse, no management at all, it quickly leads to overexploitation of fisheries resources, and results in social harm and environmental degradation.

In the context of extremely weak fisheries management systems in most countries of the world today, the consequences of this are patently clear.

Further fish trade liberalization, especially through the reduction/elimination of tariffs, will only bring lasting economic benefits to those few developed countries that have well-established and reasonably effective fisheries management regimes. It is no accident that these are the same countries leading the push for tariff cuts. They should - provided they have the political will - be able to withstand the pressures to increase supply beyond sustainable levels that tariff elimination will unleash, but they are likely to be the only ones.

It is obvious that further liberalization of fish trade will be particularly harmful for developing countries, as it accelerates the treadmill of "impoverishing growth" they have been on since the structural adjustment programs of the 1980s. While tariff reductions in fish may well bring short term boosts in their export earnings as the last vestiges of their high value marine resources get scooped up for export, the margins for doing so are extremely tight given that most high value stocks are already exploited at or beyond sustainable levels.

The most likely scenario under current conditions is that developing countries will deplete what is left of their wildfish biomass, increasing the already considerable loss of both genetic and biological diversity in the process. For their local consumers, fish prices will rise as more national fishing effort is diverted to fishing for export species, leading to less supply of locally fished and consumed pelagics. Globally, liberalization will also increase pressure to divert food from the third world's poor to fishmeal processing to supply unsustainable forms of salmon and shrimp aquaculture that will get a boost from tariff liberalization.

In geographic terms, there will likely be a shift in production, particularly in canned tuna to South East Asia from ACP countries, particularly African countries, as they suffer preference erosion and lose the trade benefits associated with the Lomé and Cotonou agreements. Bangkok is expected to become the uncontested hub of the international canned tuna trade.

Even the importing OECD countries, that benefit from the inadequate, lax or non-existent resource management regimes in developing countries, could see further liberalization negatively impact their own fisheries. Faced with competition from cheaper imports, their domestic fleets will likely respond by fishing harder on weak stocks unless they can shift their capital (vessels) and labour to other uses; which is highly unlikely given past experience.

While fish consumers in developed countries should see some short term benefits in terms of less expensive seafood prices, these will be short lived because further liberalization will only accelerate resource depletion through continued over-fishing -especially in developing countries - leading to higher prices in the medium to long term as global supplies diminish.

The case studies of Mauritania, Argentina and Senegal provide consistent and horridly detailed descriptions of the ecological destruction and waste that has occurred and is

occurring in their waters, under the combined factors of poor management and strong export-stimulated demand for fish products. But these countries are not unique and should not be singled out for particular opprobrium.⁴⁰ They are the rule not the exception. Management regimes the world over are woefully inadequate in terms of keeping the increasing efficiency of the fishing industry within the narrow limits of sustainability.

This is not news. The situation has been described and decried *ad nauseam* for almost two decades now, in UN General Assembly resolutions, FAO studies, successive World Summits on sustainable development and OECD reports.⁴¹ The FAO's biennial State of the World Fisheries report, for example, has now become a predictable litany that quantifies the continued over-exploitation.

What is new, however, is that a concerted multilateral initiative would now accelerate the whole unsustainable and destructive process; because that is what the Doha Round's NAMA negotiations would unleash were they to succeed.

The incoherence of the world community on the question of unsustainable fishing is staggering. The members of the WTO that put fish and fish products on the list of sectors to be liberalized under NAMA and those that created the fish sectoral are also members of the FAO's Committee on Fisheries and, in the case of the developed countries, members of the OECD. They know full well the state of the world's wild stocks and - if they have read the OECD report - they know as well what the consequences of further liberalization will be. While countries like Canada, Norway, New Zealand and Iceland have clear economic gains to be made from the increased market access for their products that tariff reduction would provide, it is highly disingenuous for them to couch their self-interest as a benefit to developing countries.

But the worst hypocrites are those nations that negotiate sweetheart deals for their distant water fleets by bribing debt-ridden poor countries with infusions of badly needed hard cash to open up their waters to the insatiable and unscrupulous practices of surplus foreign industrial fishing capacity. While the EU's Fisheries agreements with West African nations are the most notorious and well documented, thanks largely to the transparency of the EU's political process, they are not the only ones. There are an estimated one hundred of these agreements in place internationally, of which the EU has only about a dozen. Japan alone is estimated to have about 40, often camouflaged under its overseas development assistance and technical cooperation programs (UNEP, 2002a). Taiwan and Korea also have large distant water fleets, and China, as was shown in Mauritania and Senegal, is also exporting its fishing capacity wherever it can.

Clearly the problem is not one of poor countries like Mauritania, or even rich ones like Canada, fishing off the coast of Spain and making off with as much bounty as they can under the cover of an economic accord. A large and significant part of the problem in global over-fishing is that powerful fishing nations, instead of assuming their legal obligations to act responsibly, and ensuring that their citizens and corporations do too, are aiding and abetting ocean pillage by preying on the vulnerabilities of developing nations.

If the problem is well known, so are the solutions. There are a series of painstakingly crafted international instruments and laws to which many (but not all!) of the guilty parties subscribe, that would remedy the problem if they were rigorously applied and adhered to.

⁴⁰ A recent FAO study on fish trade and food security in LIFDCs found that international trade in fish products had a negative impact on the fish resources in all 11 countries studied. The study points out that there appears to be an "uncanny relationship between a fish species entering international trade and its depletion" and that the "opportunities for profitable trade drive the depletion" (Kurien, 2005).

⁴¹ The latest warnings come from a team of ecologists and economists whose projections are that the populations of just about all seafood face collapse by 2048 if current rates of over-fishing continue (Worm et al, 2006).

There is a logical and coherent link in the key instruments of oceans governance starting with the *United Nations Law of the Sea (UNCLOS)*, the *FAO Code of Conduct for Responsible Fisheries* and its companion agreement the *FAO Compliance Agreement (1993)*, through to the *UN Fish Stocks Agreement* as well as the series of *FAO International Plans of Action*, that address illegal fishing, overcapacity and over-fishing.

Sooner rather than later, there has to be universal adherence to these key instruments.⁴² In the meantime those countries that are adherents have no excuses not to respect their obligations, starting with the basic UNCLOS provision of assuming responsibility for the fishing vessels flying their flag. There is no international ocean police, though an 'Interpol for the Oceans' is clearly needed. International oceans law is largely constructed around the principles of self-enforcement. It is time for responsible countries to step forward and establish the ethical and legal standards for conduct on the high seas and in their fishing relations with other countries.⁴³

At the same time, those nations that are committed to sustainable fishing must come together to create a new international conservation instrument for marine reserves on the high seas (Greenpeace, 2005c).

The last thing governments should do is to revive the Doha Round in general and the Non Agricultural Market Access (NAMA) negotiations in particular. Instead of pursuing further trade liberalization, states should ensure existing international law is implemented fully and establish new rules to ensure the sustainable and equitable management of the high seas. Developing countries must be provided with the capacity and know-how to establish and enforce effective fisheries management regimes in their own waters.

Responsible states must act quickly however. The ecological, social and economic losses are accumulating and some of these may be irrecoverable.



⁴² Four key fishing nations China, Japan, Korea and Thailand have not signed the most important global fishing agreement – the UN Fish Stocks Agreement (High Seas Task Force, 2006). Japan has committed to doing so.

⁴³ See: Greenpeace, Freedom for the Seas at <http://www.greenpeace.org/international/press/reports/freedom-for-seas>, accessed November 23, 2006.



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List of Acronyms



ACP:	African, Caribbean, and Pacific countries
CFFA:	Coalition for Fair Fisheries Arrangements
DSB:	Dispute Settlement Body
EC:	European Community
EEZ:	Exclusive Economic Zone
EU:	European Union
FA:	Fisheries Agreement
FAO:	United Nations Food and Agriculture Organization
FCR:	Food Conversion Ratios
GATS:	General Agreement on Trade in Services
GATT:	General Agreement on Tariffs and Trade
GPS:	Global Positioning System
GSP:	Generalized System of Preferences
HACCP:	Hazard Analysis Critical Control Point
IMF:	International Monetary Fund
IUU	fishing: Illegal, Unreported and Unregulated Fishing
LDCs:	Least Developed Countries
LIFDC:	Low Income Food Deficit Country
MEA:	Multilateral Environmental Agreement
MFN:	Most Favoured Nation treatment
NAMA:	Non-Agricultural Market Access
NGR:	Negotiating Group on Rules
NTBs:	Non-Tariff Barriers
OECD:	Organisation for Economic Cooperation and Development
PRSP:	Poverty Reduction Strategy Paper
SPS:	WTO Agreement on Sanitary and Phytosanitary Measures
TAC:	Total Allowable Catch
TBT:	WTO Agreement on Technical Barriers to Trade
TEDs:	Turtle Excluder Devices
UNCLOS:	United Nations Convention on the Law of the Sea
UNDP:	United Nations Development Programme
UNEP:	United Nations Environment Programme
USITC:	United States International Trade Commission
WHO:	World Health Organization
WTO:	World Trade Organization



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Appendix I

Selected Greenpeace papers and press releases on the Doha Round 2003-2006

2006

"Face it, Doha is dead": time to look at alternatives to WTO

24 July 2006 (press release)

<http://www.greenpeace.org/international/press/releases/doha-is-dead>

Deadly Subsidies, How government subsidies are destroying the oceans and forests and why the CBD rather than the WTO should stop this perverse use of public money.

31 May 2006 (study)

<http://www.greenpeace.org/raw/content/international/press/reports/deadly-subsidies.pdf>

2005

Face-saving declaration by the WTO fails to address the real impacts of free trade

18 December 2005 (press release)

http://www.greenpeace.org/international/press/releases/WTO_declaration_fails_address_real_impacts_free_trade

The NAMA Drama

02 December 2005 (background paper)

<http://www.greenpeace.org/raw/content/international/press/reports/the-nama-drama.pdf>

Trading away our last ancient forests

02 December 2005 (study)

<http://www.greenpeace.org/raw/content/international/press/reports/Tradingawayancientforests.pdf>

WTO Hong Kong 2005 Position

02 December 2005 (paper)

<http://www.greenpeace.org/raw/content/international/press/reports/wto-hong-kong-2005-position.pdf>

Adelphi Research, Greenpeace & Friends of the Earth, 2005. Is the WTO the only way? Safeguarding Multilateral Environmental Agreements from international trade rules and settling trade and environment disputes outside the WTO. Berlin, Amsterdam, Brussels

<http://www.greenpeace.org/raw/content/international/press/reports/is-the-wto-the-only-way.pdf>

2004

WTO: Dangerous fudge--not victory for multilateralism

01 August 2004 (press release)

<http://www.greenpeace.org/international/press/releases/wto-dangerous-fudge-not-vict>

2003

USA and EU sink the WTO round in Cancun and we call on governments to create a new trade system, 14 September 2003 (press release)

<http://www.greenpeace.org/international/press/releases/usa-and-eu-sink-the-wto-round>

A Guide to the 5th Ministerial Conference of the WTO (paper)

<http://www.greenpeace.org/raw/content/international/press/reports/a-guide-to-the-5th-ministerial.pdf>

Greenpeace Position Paper for the 5th Ministerial Conference of the WTO

http://www.greenpeace.org/international_en/multimedia/download/1/308757/0/positionpaper-FINAL.pdf

Questions and Answers about the 5th Ministerial Meeting of the WTO in Cancun, Mexico (paper)

http://www.greenpeace.org/international_en/multimedia/download/1/306498/0/q&A.pdf





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Trading Away Our Oceans

Why trade liberalization of fisheries must be abandoned



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Trading Away Our Oceans

Why trade liberalization of fisheries must be abandoned

Greenpeace is an independent, campaigning organisation which uses non-violent, creative confrontation to expose global environmental problems and to force solutions essential to a green and peaceful future.

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