

Chapter 2

Globalisation in the Harvesting Sector

Globalisation in the harvesting sector takes place in many ways including through investing abroad in foreign countries, through bilateral fisheries arrangements and through fishing on the high seas. Globalisation in the harvesting sector is, to a large extent, driven by the need of fleets to secure access to fish. The more secure and the long term access is, the more willing an investor will be to invest in fishing opportunities abroad. Fishing companies may globalise their activities as harvesting opportunities arise and could also be an outcome diminished opportunities in domestic waters. Fisheries management and governance are of crucial importance in determining whether or not fleets venture into new fishing grounds. In this respect it is important to review domestic and international fisheries management arrangements and settings to ensure sustainable outcomes.

In the harvesting sector the importance of sustainable management is crucial for longer term benefits to accrue. It is therefore necessary to look both at “how” globalisation takes place and “what policy frameworks” are needed to ensure that the globalisation process produces sustainable fisheries outcomes.

As highlighted in the paper by Alastair Macfarlane to the Workshop on Globalisation¹ cross-border investments in the harvesting sector is a risky business and investments are discouraged by the continued failure to address fisheries sustainability and secure access rights. Furthermore, investment restrictions in the harvesting sector makes it difficult for foreigners to establish themselves in the harvesting part of the value chain although a number of joint venture and chartering arrangements between private companies do take place. The first part of this chapter seeks to elucidate the “how and why” companies globalise in the harvestings sector.

What remains as key globalisation pathways include both fishing under bilateral access arrangements and fishing on the high seas, which are fisheries arrangements that require active international co-operation between developed and developing countries to ensure their sustainability. Important aspects of this also trickle into domestic fisheries management and governance to ensure that global fishing effort does not exceed fisheries allocations, and ensuring that global standards are being met by all nations so that a race to the bottom is avoided. The section “Policy implementation gaps”, seeks to further develop the policy issues that are associated with the globalisation process in the harvesting sector.

The harvesting sector presents some interesting features with respect to globalisation; however, hard evidence through statistics on global fleets are notoriously difficult to interpret. This follows from the fact that fleet measurement (length, tonnage, type of vessel, fishing gear used) can vary substantially and small vessels are often not registered. In addition, on a global scale, fleet statistics have been collected by the FAO but have not been updated for some time. Hence, in the following, careful interpretation of figures is required. Tables 2.1 and 2.2 provide an overview of the number and distribution of the world’s fleets and fishers.

Table 2.1. **World fishing fleet and fishers**

Vessel tonnage group	No. of fishing craft	No. of fishers (est.)
+1 000	2 500	150 000
500-999.9	2 800	112 000
100-499.9	40 300	1 200 000
-100	1 212 600	5 500 000
Undecked (mechanically powered)	1 000 000	4 400 000
Undecked (not mechanically powered)	1 800 000	5 300 000
Total	4 058 200	16 662 000

Source: FAO, reported in ILO *Work in the Fishing Sector*, ILO (2007).

Table 2.2. **Distribution of decked and undecked vessels by number**

Number of decked vessels			Number of undecked vessels		
Continent	1998	%	Continent	1998	%
Africa	13 158	1	Africa total	416 020	15
Americas	67 078	5	Americas total	282 194	10
Asia	1 102 018	85	Asia total	1 977 639	72
Europe	116 163	9	Europe total	17 506	1
Oceania	3 486	0	Oceania	..	0
Grand total	1 301 903	100	Total	2 756 769	100

Source: FAO FIGIS.

There are around 4 million fishing craft in the world (employing 16.6 million fishers, which exclude a considerable number of fishers who do not actually work on vessels).² The distribution of fleets and fishers across the globe is fairly skewed, with Asia accounting for by far the largest share. Asia accounts for upwards of 85% of all craft. Of the 28.5 million fishers recorded in 1990 (latest available official statistics), 24.3 million (85%) were located in Asia. Most Asian vessels are smaller craft or decked and undecked vessels.

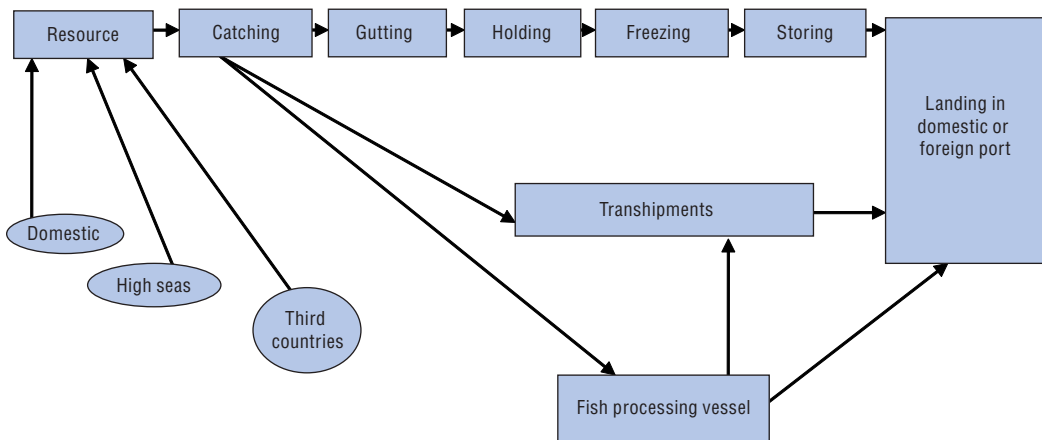
Globalisation in harvesting

Globalisation in the harvesting sector is driven by the need to secure access to fish and can manifest itself in numerous ways, including through: high-seas fishing (regulated and unregulated), access agreements, quota leasing or swaps, joint ventures, direct investments into foreign countries that offer quotas, and chartering. Whether this also entails a reflagging of the vessels will depend on the domestic and foreign regulatory framework in place. Some of these arrangements are subject to regulatory approval and oversight of public authorities while others are business-to-business undertakings. The incentive for vessel operators to seek access abroad depends on the value of the fish potentially to be caught, net costs (i.e. net of any subsidies) for vessel operations and access payments. The incentive can be influenced as well by the variable costs of the fishing operation (fuel, labour, including subsidies, etc.) in the domestic fisheries compared to those of foreign grounds. In respect of the latter, it is important to underline that the domestic fisheries management settings will to a large extent determine the cost of domestic fishing operations. In other words, part of a vessel operator's incentive structure is a function of the domestic fisheries management settings; this is often forgotten in the debate as to why fleets seek new ventures abroad or on the high seas.

Harvesting (defined as the activities from catch to landing) can be broken up into several elements: catching, holding/storing, gutting, freezing, landing. Figure 2.1 is an example of how operations in the harvesting sector of the value chain may take place. Some of these operations may take place at different places and by different operators, especially when fish are transhipped at sea.

The “normal” case for fishing vessels is to gut, store, cool/ice/freeze and transport the fish before landing in ports. Other possibilities include the transfer of fish at sea to mother ships for further processing into more or less elaborate products, or simple transhipment at sea for transport to a landing site (see Box 2.1).

Most countries' fisheries legislation is very prescriptive as to how fishing operations are to take place within their exclusive economic zone (EEZ): by whom, which gear may be

Figure 2.1. **The harvesting sector**

Source: OECD Secretariat.

Box 2.1. **Transshipment at sea**

The Department of Environmental Management in the United States issued a permit to Mayflower International Ltd., authorising the Russian-flagged *M/V Dauriya* to anchor in Rhode Island waters from February-April 2003, to participate in joint venture commercial fishing operations with local fishers.

The permit allowed the *M/V Dauriya* to purchase up to 5 000 mt of Atlantic mackerel and 5 000 mt of sea herring from local fishermen, process the fish whole and then periodically transfer the frozen, packaged fish to another vessel for shipment overseas. The operation is important to local fishers because there is insufficient local capacity to process mackerel and herring, which are available off southern New England in surplus quantities. The operation is important to the Russians because of the relatively strong foreign market for these species. Thus, the operation will have the effect of boosting economic activity in the state by enabling local fishers to harvest and sell species that would otherwise go unharvested. Last year's operations resulted in almost USD 2 million in direct revenues generated by the purchase of the fish.

Source: State of Rhode Island Department of Environmental Management, news release 24th January 2003, www.dem.ri.gov/news/2003/pr/0124031.htm.

used and under what conditions fishing may take place. To a great extent, this will frame the possibilities in the harvesting sector for seeking access to alternative fishing. For example, for sanitary/hygiene reasons, some countries stipulate that fish have to be landed within a certain number of hours of being caught and only gutting and icing is permitted. Other countries do not allow the use of factory vessels within their EEZ, transshipments, or the use of foreign vessels for harvesting. Such regulations – although they may offer other benefits – may insulate the fishing fleet from certain opportunities offered by globalisation. Seen from the perspective of the fisheries management authorities, however, regulations are essential for ensuring a proper functioning of the fisheries management system and adherence to national and international standards.

The period since the 1980s has seen marked changes in the internationalisation of the harvesting sector. The advent of 200-mile exclusive economic zones (EEZ) reduced the fishing possibilities for some countries that had been fishing at great distance from home

ports. Following the extension to 200 miles, and the associated loss of foreign fishing grounds for Distant Water Fishing Nations (DWFNs), they had to negotiate access to marine resources within the 200-mile limit of third countries or fish on the high seas. At the outset, these fleets were most often re-deployed in those countries' waters where they had previously been fishing.

The “shake out” of fleets and other global changes (in particular trading patterns) that the introduction of the 200-mile zone gave rise to, should by now have been fully absorbed. It remains, however, that fleets continue to search globally for new fishing opportunities. The following will look at three principal ways that this takes place: 1) through investing abroad in foreign countries; 2) through bilateral fisheries arrangements; and 3) through fishing on the high seas within or outside RFMOs (both of which may include legitimate fishing or IUU activities). While the reasons for seeking new opportunities may be the same in the three cases (more profitable fisheries operations, spreading activities and thus reducing risks³), different policy challenges are associated with the three methods of “going global”.

Investing abroad in capture fisheries

The principal concern for harvesting operators when seeking global investment opportunities is associated with the security of long run access to the resource and, more generally, the confidence in fisheries management (including stock situation and predictability). Government policy in respect of these areas in the country to be invested in is therefore crucial in enabling an investor to gauge the risk of investing. Only a minority of international investment takes place in the catching sector (Alistair Macfarlane, 2007).⁴ Hence, globalisation through capital markets is an unlikely option in the harvesting sector partly due to restrictions on foreign investments in harvesting in most countries⁵ and partly due to lack of long-term secure access. Consequently, the harvesting sector mainly globalises through harvesting on the high seas and through various types of access arrangements to foreign countries' EEZs.

Nevertheless, there are some companies that are global seafood harvesters. Some of the important companies from OECD countries that own fishing fleets abroad are: *Austevoll Seafood* (Norwegian company with fleets in Norway, Peru and Chile; mostly for fish meal and oil), *Pescanova* (Spanish company with worldwide fleet operations, including in South Africa, Argentina and Mexico), *Nippon Suisan Kaisha Ltd.* (Japanese company with fleet operations in Indonesia, New Zealand, Chile and Argentina), and *Maruha Corp.* (Japanese company with fishing interests in New Zealand, Indonesia, Bangladesh, Madagascar and Mozambique). In addition, the Icelandic company *Samherji HF* owns harvesting interests in the UK, Germany and Poland and *Aker Seafoods* of Norway has interests in a Spanish harvesting company. Outside OECD countries, important operators with non-domestic harvesting interests include *Pacific Andes* and *China Fishery Group*.⁶

As has been highlighted in other work by the Committee for Fisheries, there are numerous restrictions on investments in the harvesting sector. Most OECD and non-OECD countries have various regulations in place that try to reserve domestic resources for domestic fishers. To overcome these restrictions, harvesting companies often use local companies, joint operations, service arrangements, and vessel operating agreements, etc. However, two factors are very important before foreign investments can take place in the harvesting sector. The first one is the time frame (the shorter the involvement, the more unlikely an investor will commit vessels and crew) and security of involvement in harvesting (better managed fisheries are likely to be more attractive to foreign investors).

The second factor is the business-to-business arrangement between the domestic and foreign partner (i.e. how secure/stable is the business arrangement and investment?). In short, long-term access to secure user rights of well managed resources is often seen as an operational parameter which encourages investment and reduces risk.

In discussions with key personnel from some of the companies mentioned above, crucial factors of interest before investing abroad include: the predictability of quotas for the foreseeable future (longer term investments), the value of quota holdings (which are subsequently reflected in the company's assets and therefore share price), quota ownership and security of possible partnerships with local companies (see Box 2.2). Some companies "go global" because domestic possibilities are limited (for example, a cap exists on quota holding in Norway and Iceland) and hence investing abroad in quotas is the only way to expand the resource base for processing. Also key for these companies is a risk assessment. Risk assessments include business operations risk (e.g. resource management, fluctuations in raw material prices), political risk (e.g. environmental and licensing regulations, ownership restrictions), and financial risk (e.g. leverage, liquidity).

Box 2.2. **Securing more long-term access to fishery resources**

Pacific Andes' fishing division maintains a lookout for equitably-priced opportunities to acquire licensed fishing vessels, or to enter into new Vessel Operating Agreements (VOAs). Subsequent to the end of FY2007, Pacific Andes acquired an additional 11 licensed purse seine fishing vessels, 2 fishmeal plants and 1 canning factory in Peru. These acquisitions brought the total current size of its purse seine fleet to 34 and the number of fishmeal plants to 6, thus further consolidating its competitive position in Peru and increasing economies of scale. Strategically, this also ensures that the Group secures its long-term access to more fish resources.

Source: 2007 Annual Report of Pacific Andes International Holdings limited (www.pacificandes.com).

Bilateral fisheries access arrangements

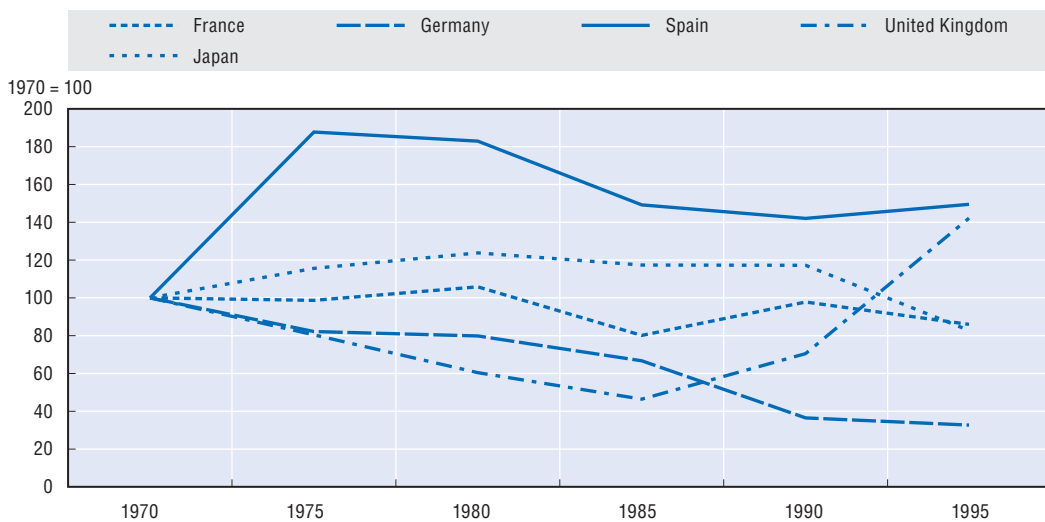
As mentioned, an important event for the harvesting sector was the extension of fishing zones to 200 miles, which took place from 1977 onwards and which was subsequently codified in the 1982 UNCLOS. As a result, many vessels were available to fish under various types of access arrangements or on the high seas on a low-cost basis (with a view to just covering their variable costs). This helps explain the proliferation of access agreements following the extension of EEZs, in particular from traditional long-distance fleets from countries such as Spain, Portugal, France, Japan, USA, the Russian Federation and China. Different approaches have been adopted including government-government, private-government or private-private arrangements, joint ventures, chartering, reflagging into the host country, etc. The primary objective has been to obtain access to resources in order to continue to supply traditional markets, processors and consumers with fish. In addition, at least initially, the newly endowed coastal states were often without the necessary expertise and fishing capacity to effectively utilise the resources in their new expanded EEZs.

Total marine catches from distant water fisheries reported by DWFNs increased from less than one million tonnes in the early 1950s to about 8 million tonnes in 1972, before declining rapidly to about 4.5 million tonnes in 1991 and remaining roughly stable at that level since. As a proportion of total marine capture, those catches reported by DWFNs

reached a maximum of 15.5% in 1972 and then declined to about 5%, where they have been stable since 1993. This is likely to reflect a number of developments. First, a reduction in the profitability of long distance fishing caused by high costs of maintenance of fleets and increasing costs of access, and second, that markets and fleets have gradually changed and adapted to find a new equilibrium reflecting the global supply and demand situation following the extension of EEZs.

By the end of the 1990s, fishing under access agreements was less likely associated with the extension of EEZs but rather likely that such operations were necessitated by limited fishing possibilities in domestic waters. The existence of excess capacity in domestic fisheries may also help explain why certain countries are active in bilateral fisheries arrangements. However, in the transition period many countries introduced fleet capacity adjustment programmes that effectively scrapped a part or all of the long distance fleet. For example, in Germany the “Hochseeflotte” based in Bremerhaven and Cuxhaven were removed from operations in the years immediately following the extension of EEZs. Figure 2.2 highlights the development in the number of vessels above 100 GRT in a selected number of distant water fishing nations.

Figure 2.2. **Number of fishing vessels above 100 GRT**



Source: FAO FIGIS.

Long distance fleet issues

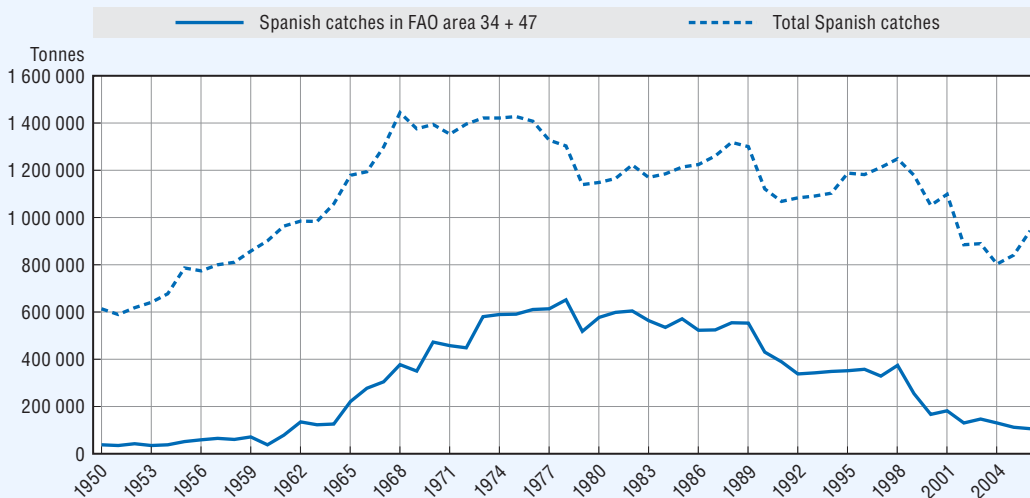
In order to understand the way in which the harvesting sector has globalised through bilateral fisheries arrangements, it is helpful to consider the experiences of two countries. The following two case studies examine the Spanish (see Box 2.3) and Japanese (see Box 2.4) experiences. Although both Spain and Japan are Distant Water Fishing Nations, the types of agreements they have negotiated are different. Nevertheless, comparing the two countries shows that similar outcomes were reached: an initial push into developing-country fishing areas that internationalised the harvesting sector and resulted in large volumes of extraction, followed by retraction over the past decade.

Box 2.3. Case study: Spain

Fishing operations by Spanish fleets traditionally centred on North Atlantic fishing grounds, fairly close to the home market. As technological capacities developed from salting to refrigeration, slow-freezing techniques and fast and flash freezing methods, geographical expansion of the harvesting sector has been made possible. This has allowed Spanish vessels to access resources in developing countries that are far away from their markets.

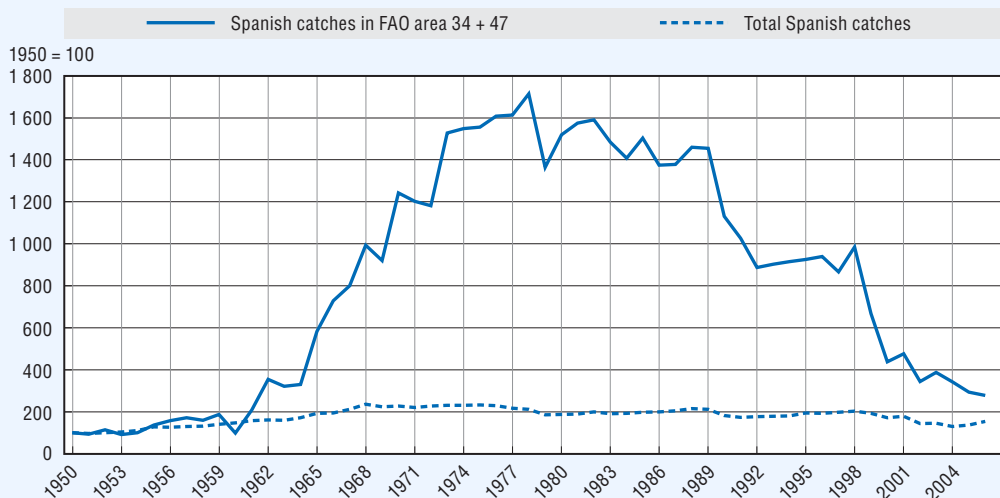
Figure 2.3 traces the development of Spanish total harvest and the Spanish harvest in the South-East and eastern central Atlantic area (FAO areas 34 + 47) from 1950 to 2005 (Figure 2.4 provides the same as an index 1950 = 100). While total Spanish catches have shown a downward trend since 1975 when they peaked at 1.4 million tonnes, catches by Spanish vessels in South-East and eastern central Atlantic have been reduced considerably (after peaking at 651 000 tonnes in 1978, they amounted to 106 000 tonnes in 2006). This indicates a redistribution of Spanish catches among fishing areas while, concurrently, the decrease in Spanish catch in the South-East and eastern central Atlantic has come about as bilateral agreements were terminated and more generally that the right to catches changed.

Figure 2.3. Spanish catches, 1950-2006



Source: FAO, Fishery Statistics.

Figure 2.4. Spanish catches



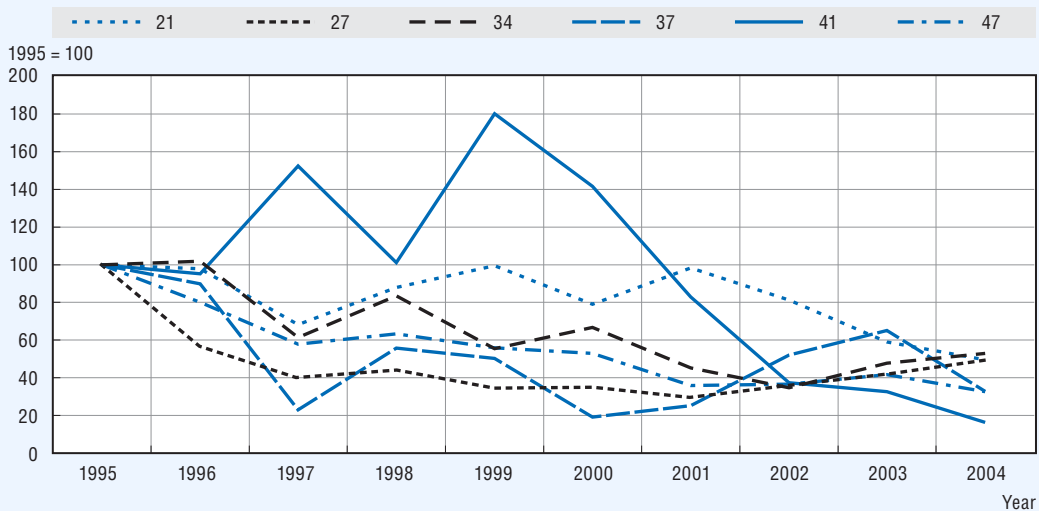
Source: FAO, Fishery Statistics.

Box 2.4. Case study: Japan

The Japanese government provides fisheries management measures for its long distance tuna vessels through a license scheme, monitoring and enforcement mechanisms, and other management measures. However, Japan's fisheries agreements do not directly involve the Japanese government. They are either agreements between the Japanese Tuna Association and coastal countries or license fee arrangements between a specific Japanese company and fisheries authority of a coastal country, where the financial compensation is considered a private agreement (Mbithi, 2006).

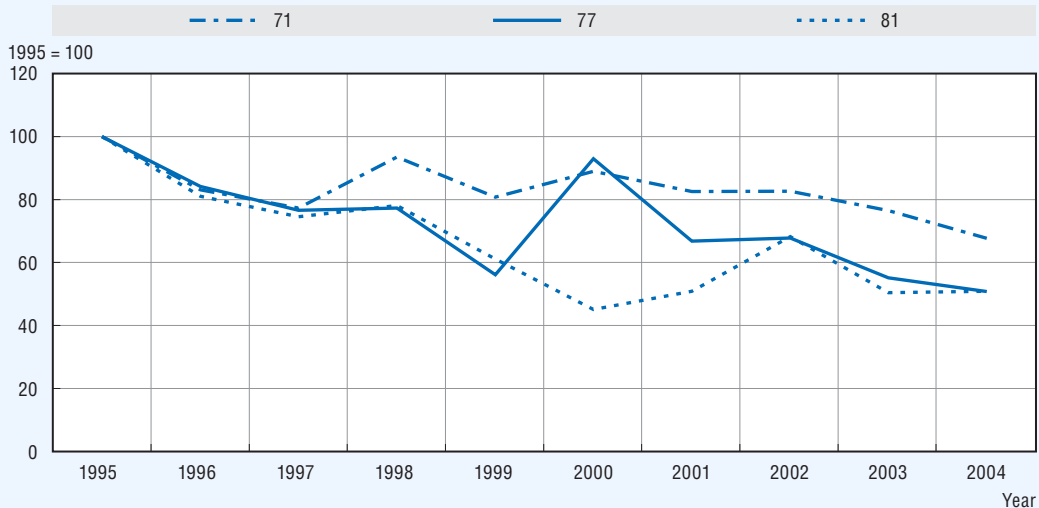
Japanese vessels operate in the EEZs of Pacific Island states and some African states. Japanese expansion occurred until the 1980s when access to fishing grounds outside Area 61 where Japan is geographically based became extremely limited following the introduction of the 200-mile zone. Over the past decade, Japan's presence in foreign waters has continued to decline as depicted in Figures 2.5 and 2.6.

Figure 2.5. Japanese catches in the Atlantic Ocean (FAO areas 21, 27, 34, 37, 41, 47)



Source: FAO, Fishery Statistics.

Figure 2.6. Japanese catches in the Pacific Ocean (FAO areas 71, 77, 81)



Source: FAO, Fishery Statistics.

The EU has made use of access agreements in countries in which the EU fleet has had traditional fishing activities, in particular in Africa. In 2007, out of 17 EU fisheries agreements, 13 were with African countries. All the agreements the EU initialled since 2004 are fully in line with Council Conclusions on Fisheries Partnership Agreements (FPA), which aims to ensure the economic, social and environmental sustainability of fisheries wherever EU vessels are engaged in fishing activities. The aim of these FPAs is cited as no longer just to secure access for the European fleet but also to assist developing countries in putting in place their own fisheries policies, which can help them meet their development objectives while protecting fishing resources. In 2007, the total financial contribution under EU FPAs to African countries was around EUR 142 million.⁷ Of the financial contribution to each country, a percentage is set aside to support the sectoral fisheries policy of the third country with a view to introducing responsible and sustainable fishing. Spain has been the major EU beneficiary of fisheries agreements in terms of licence allocation.

The main conclusions drawn from the case studies highlight that globalisation in the harvesting sector has also taken place through access arrangements. However, the expansion has now ended and the presence of DWFNs abroad based on bilateral access arrangements is declining as coastal states are seeking to exploit the resources themselves and as costs of long distance fishing have increased. While fleets “go global” to seek more profitable deployment, it remains that the outcome of the domestic fisheries management system is an important driver in doing so. As discussed in other work by the Committee for Fisheries, fleet reduction programmes are an important method of reducing overcapacity and restoring profitability in the domestic fleet, if measures exist that ensure that new capacity is not reintroduced. It is important that policy makers in DWFNs address their own overcapacity issues and actively reduce the size of their fleets. If not, there may be spillover into already fully-subscribed high-seas fisheries.

Host country issues

To illustrate potential issues for host countries associated with access agreements, Boxes 2.5 and 2.6 briefly look at what has happened with two developing countries that have hosted DWFNs: Mauritania (Box 2.5) and Namibia (Box 2.6). These two countries have taken different approaches to benefit from distant water fishing. In the case of Mauritania, the country has “sold” its resources (i.e. accepted FDI) leaving it with large cash reserves but little internal fisheries sector development. On the other hand, Namibia, although initially opening its EEZ to distant water fleets, then undertook a policy of “Namibianisation” and reserved access to its resources for its domestic industry, which has focused on domestic value-addition. This has allowed Namibia to be an exporter of fish products and to benefit from globalisation by enabling the industry to operate in other parts of the value chain where more value can be gained. The different approaches taken by Mauritania and Namibia’s governments have brought different results to the domestic fishing industry and underscore the role that governments play in addressing the opportunities and challenges that globalisation brings.

To summarise, host countries of long-distance fleets have taken different routes for the use of their resources. However, increasingly, developing countries are now wishing to maintain control over their resources for the development of their own fisheries sector and in doing so, seek to benefit from fishing and domestic processing. This strategy provides them with potential increased benefits through value-added production, especially if such

Box 2.5. Case study: Mauritania

Mauritania's coastline stretches for around 720 km and its waters are the source of a strong, steady upwelling, providing rich fishing grounds. The Mauritanian EEZ has 170 marketable species out of a total of some 350 identified species (excluding seaweed), consisting of cephalopods, crustaceans, demersal fish, pelagic fish and clams.

Mauritania's use of fisheries access agreements to provide revenue from its fishing grounds is based on the UNCLOS principle that in the event of a surplus that it does not have the capacity to harvest itself, the coastal state has to allocate some of these resources to other states. Mauritania's most important access agreement is with the EU. A new Fisheries Partnership Agreement, covering the period 1.08.2006-31.07.2012 has been initiated in July 2006. The protocol (01.08.2006-31.07.2008, automatically renewable) provides for a financial contribution of EUR 86 M per annum, plus EUR 22 M per annum in fees paid by vessels directly to the Mauritanian government. The fisheries agreements have provided Mauritania with a large inflow of foreign currency revenue that has allowed the country to cancel a part of its foreign debt. It particularly provided substantial budget resources during lean years (around 25 to 35% of budget resources), and even today contributes importantly to the Mauritanian economy (15-20% of budget resources and 40% of foreign reserves), albeit Mauritania gained status as a petroleum-producing country.

A new protocol has been initialled on March 2008 covering the period 1.08.2008-31.07.2012. This new protocol aims in particular at strengthening investment in the Mauritanian fisheries industry. The two Parties agreed to decrease the current fishing possibilities, thus reflecting the reduced needs of the European fleet and recent scientific advice (a reduction of 25% for cephalopods (octopus) and from 10 to 50% for demersal species and by 43% for small pelagic) bringing the overall annual tonnage from the current 440 000 tonnes to 250 000 tonnes. The fishing effort of the European vessels on sensitive species has also been substantially reduced. Thus, in less than two years, fishing possibilities for cephalopods have decreased by 55%. The amount earmarked for the development of the national fisheries sector and to better integrate the fishing sector in the Mauritanian economy has been substantially increased compared to the EUR 10 million earmarked under the current protocol. Thus, EUR 16.25 million will be allocated to support the main components of the "2008-12 New Mauritanian Strategy for the Fishing and Aquaculture Sectors". The objective is to increase the investments and the added value in the fishery sector and the domestic fishery sector's contribution to GDP. This support should particularly be of benefit to the future development of Mauritania's industry and the national fleet, in particular the artisanal sector. Therefore, despite the substantial reduction of fishing possibilities, the level of financing contribution will now amount to EUR 305 million over the 4-year period covered by the protocol or EUR 75.25 million per year (as compared to EUR 86 million now). There will be an additional EUR 15 million per year from licences.

In the meantime, albeit without a domestic tradition for fisheries, foreign fishing pressure may have contributed to the deferment of development opportunities of the Mauritanian domestic fishing industry. While the Mauritanian fleet lacks the technical requirements to access the resource, the employment situation on board foreign vessels also does not aid the development of the domestic industry. As a result, the domestic fishery sector's contribution to GDP, estimated at over 12% in the 1970s, now barely exceeds 5%. The percentage of Mauritanian vessels laid-up on a temporary or prolonged basis is estimated to be over 25%, while almost all the remainder are experiencing financial difficulties (Toueilib, 2007). Concurrently, the Mauritanian processing industry has suffered from falling supplies from both domestic and foreign vessels landing in Mauritanian ports which have made it difficult to integrate the sector into the national economy and is a handicap for the further expansion of Mauritania's industry.

Ninety-five per cent of Mauritania's catch is exported unprocessed and virtually all demersal fish is exported raw. As a result, the creation of value-addition in Mauritania is extremely low.

Source: See Chérif Ould Toueilib in *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop*, OECD, 2007.

Box 2.6. Case study: Namibia

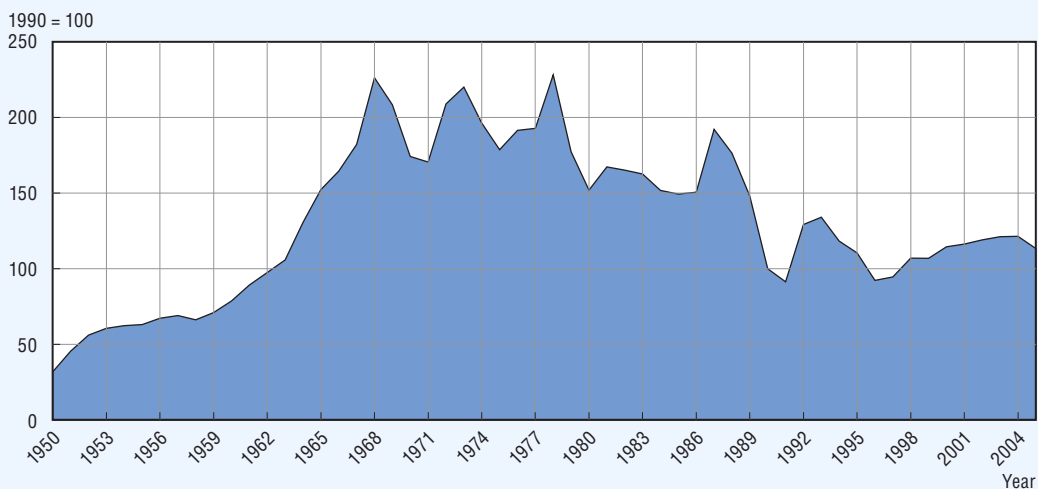
The Benguela ecosystem provides Namibia with a zone of nutrient-rich upwelling and consequently, rich fishing grounds. In 1990, Namibia gained independence from South Africa and inherited a heavily exploited fishery. Namibia embarked on a two-pronged policy approach: to ensure sustainable management of fisheries and to maximise benefits for Namibians. Today, fish stocks have stabilised, the fishing sector has increased its economic contribution to 26% of merchandise exports and the fisheries employment has more than doubled between 1991 and 1998 (Lange).

After Independence in 1990, many foreign vessels continued fishing illegally. Due to overfishing before and after independence, many stocks had to be rebuilt; TACs were introduced for all major species and levies charged on the basis of quotas allocated. Methods to restrict fishing effort such as a ban on trawling at shallow depths and 100% observer coverage on larger vessels were also introduced. As a result, in the first decade after Independence the total allowable catch (TAC) and landings of hake rose steadily.

A clear aim of Namibian policy has been to ensure that Namibians benefit from their resources. Consequently, the proportion of hake processed onshore has jumped from just 6% in 1992 to around 60% today (Minister Iyambo, 2007). The hake processing sector now employs 70% of the 14 000 permanent and seasonal workers in the industry (Maggi, 2005).

This has been accomplished through a domestic policy that prioritises the national sector over the selling of the resource to DWFNs. Whenever opportunities to catch fish become available, the Minister for Fisheries invites the public to apply for fishing rights. The aim is to ensure that Namibians get a fair chance to enter the industry and to facilitate the empowerment of previously disadvantaged groups. The result has been a fisheries sector contribution to GDP of 10.1% in 1998 from an initial 4% at Independence. 4.2% of this comes from fishing and 5.9% from processing (Oelofsen, 1999). Namibia now boasts a strong domestic fishing industry that not only operates without subsidies but contributes a resource rent to the government. Landings by Namibian vessels have increased while overall catches by all vessels in the South-East Atlantic have been declining (Figures 2.7 and 2.8).

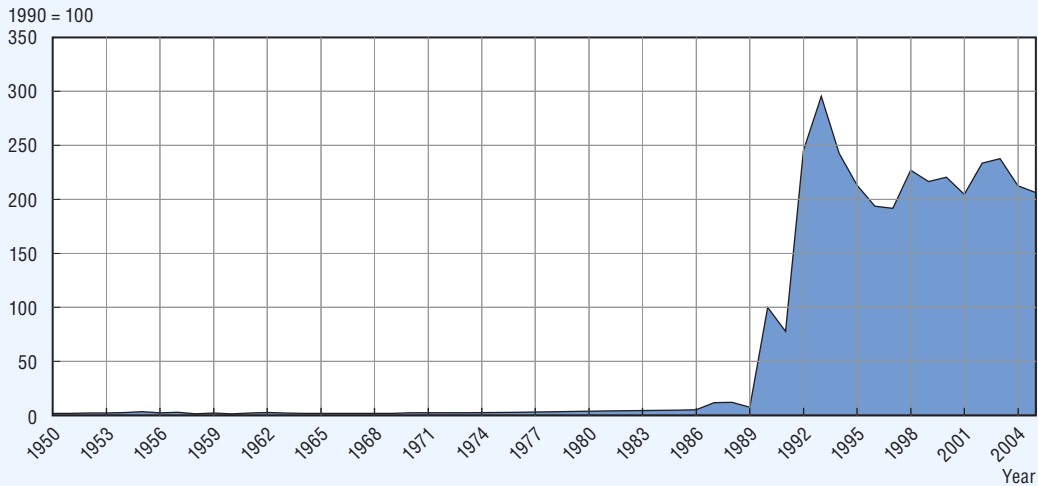
Figure 2.7. **Catches by all vessels in the South-East Atlantic (FAO statistical area 47) – Excluding Namibia**



Source: FIGIS.

Box 2.6. Case study: Namibia (cont.)

Figure 2.8. Catches by Namibian vessels in the South-East Atlantic (statistical area 47)



Source: FIGIS.

By retaining control of fisheries resources and enforcing property rights, Namibia has guaranteed the future of the domestic fishing industry as well as future development through value addition. In this process Namibia has been able to benefit from foreign direct investment (e.g. Pescanova is involved in Namibian NovaNam Ltd.) and the acquisition of skills and knowledge to further development.

products subsequently can be sold on international markets. The key for the developing countries has been a change in government policy to prioritise a sustainable development of the domestic fishing sector coupled with decreasing profitability of the DWFN.

High seas fishing

Globalisation in the harvesting sector also comprises fishing on the high seas including under international arrangements (RFMOs) or fishing in areas not under RFMO jurisdiction. As most fisheries managed by RFMOs are fully subscribed, there is little room for carrying out new incremental activities in established fisheries within such structures. As a result, existing or new idle capacity may become engaged in IUU activities⁸ unless prevented through domestic and international legal and fisheries policy frameworks. To ensure sustainable fisheries on the high seas it is therefore important that states co-operate both with respect to managing fish stocks on the high seas and to ensure that idle domestic fishing capacity is not being inappropriately transferred to the high seas or to other states.

By definition, it is difficult to obtain an overview of how much IUU fishing takes place on the high seas; information and data are often anecdotal. As noted in the Committee's earlier work on IUU fishing,⁹ IUU fishing is generally an economic activity that will continue as long as it is profitable for fishing vessels to be engaged in such activities. The information available on IUU fishing on the high seas suggests that it targets fish stocks of predominantly high commercial value with easy marketability. Another observation is that, over the past two decades, the extent of IUU fishing has increased concurrently with

globalisation in the fisheries. As a result, IUU fishing has received increasing attention from policy makers due to its negative economic, social and environmental impact, both directly on the resources and indirectly on the domestic fisheries economy. IUU fishing occurs both within RFMOs and outside RFMOs.

The Committee also highlighted that the principal cause for IUU activities is nested in weak domestic fisheries management and overcapacity coupled with lack of flag state control; domestic overcapacity generates a readily available and cheap source of fleets and fishers to seek out ventures on the high seas. It is therefore important that domestic fisheries policies ensure that fishing overcapacity is dealt with in an appropriate way through scrapping and through legislation that does not allow for fishing capacity to be exported and re-flagged to countries that do not co-operate.

In the meantime, IUU fishing must be dealt with. Products from IUU fishing enter international trade and undermine the proceeds from legal fishing operations. Catch and trade documentation, traceability and higher penalties for infringements and improved cross-country co-operation as highlighted by the Committee, are some actions that are likely to have the highest potential net payoff. In this respect stronger port and market state measures to prevent IUU fish from being landed or from entering into international trade and a clarification of flag state responsibilities under international law are also important measures that are being pursued by the international community. Also a more “imaginative and constructive engagement”¹⁰ with the fishing industry is needed to tackle the IUU issue.

Regional fisheries management organisations have been set up in various oceans to manage the fish stocks under their jurisdiction. While the 1995 United Nations Fish Stock Agreement (UNFSA) enhanced the role of the RFMOs and strengthened their management capabilities, it remains that, in some cases, RFMOs have failed to deliver sustainable resource outcomes. As highlighted by Michael Lodge “Are Present International High Seas Governance Structure Sufficient to Reap the Benefits of Globalisation?” in *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop* (OECD), there are threats to the ongoing stability and effectiveness of RFMOs. These include: free riding, IUU fishing, the failure to find solutions for the special requirement of developing countries, failure to find mechanisms to deal with new members desiring access to fisheries, and a related failure to find solutions to disagreements about allocations. Some of these issues reflect weak decision-making mechanisms within RFMOs, which leaves the potential of such issues undermining the effectiveness of collective management. As a result, overfishing continues to be a problem in some areas of the high seas including in RFMO-managed areas.

Policy implementation gaps

The following identifies some major policy implementation gaps concerning capture fisheries and highlights possible government actions that may be taken to address these issues. At the outset it is worth highlighting that many fisheries are already fully subscribed and some are overfished. Hence an important policy objective is to ensure that international and national fisheries are managed in a sustainable way and that fishing capacity is brought into line with available fishing opportunities. At a very general level, the quest for more secure use rights and access to resources makes the world’s fisheries a shared problem that requires action at the global level.

In “industrial” capture fisheries (as opposed to artisanal fisheries), developed countries have a major advantage in securing access to alternative, long distance fishing grounds for two principal reasons: those fisheries tend to be fairly capital intensive and it is mostly from developed countries that overcapacity is readily deployed elsewhere.

To underpin these observations it may be useful to recall one of the findings from the Committee’s Workshop on Policy Coherence for Development in Fisheries: “Yet, in financial terms, distinct economies of scale characterise fish production and marketing. The scramble for access to dwindling fish stocks favour industrial fishing over small scale, artisan fishing.”¹¹ One of the outcomes of the Committee’s work was the observation that a major policy implementation gap exists in the lack of coherence between fisheries policies and other policy domains. However, when transferring know-how to developing countries, developed countries can assist in the establishment of sustainable and responsible management and governance structures and potentially ensure sustainably-sourced future supplies of fish.

Overcapacity should be dealt with in an effective way (i.e. actively removing the overcapacity through scrapping schemes and management reform). As fleet capacity adjustment programmes are implemented in OECD countries, the need for access arrangements should diminish over time. By the same token, as developing countries’ capacity to fish and process fish domestically is augmented, they may find it more appropriate and wealth-creating to fish, process and trade fish themselves, rather than selling access. This is clearly a trade-off that resource rich countries need to address in light of how best to use their fisheries resources.

It remains that access arrangements are manifold and complex because of the various incentives they create and the way a number of policy domains are mixed up – most notably development assistance and trade – with fisheries policies. They are therefore difficult to deal with in any one way. As noted by Les Clark:¹²

There is no obvious rationale for the continuation of private access agreements, and there are other options for managing foreign fishing and foreign investment in the fisheries sector more generally through direct licensing of vessels without access agreements. Strengthening of developing country institutions related to fisheries management institutions is critical to taking up those options effectively.

In terms of policy implementation gaps, this suggests that two particular sets of issues need to be addressed:

- Developing countries need to reassess domestic fisheries management and development needs of the fisheries sector while strengthening fisheries governance and associated institutions. If resources are in excess of domestic needs, foreign fishing companies can be brought in through licensing, FDI or as harvesting services. Such a shift will create a more transparent market for access to resources without improper interference of foreign and domestic government policy.
- While strengthening fisheries management and governance, developed countries also need to reduce fleet overcapacity and subsidies to fleets; reassess the need for trade barriers for developing countries’ value added products (tariff escalation); when negotiating fisheries access agreements, these should be “clean” of interference from other policy domains; and provide development assistance and capacity building. Concurrently, as shown in other work of the Committee there is also a need to address domestic governance and management with a view to achieving sustainable fisheries.

As both developed and developing countries take appropriate action, the need for traditional fisheries access agreements may diminish and be replaced with other types of arrangements such as joint-venture arrangements and direct investments (foreign and local). There is evidence that such developments are taking place already as some companies are setting up affiliate harvesting companies abroad (e.g. Pescanova, Austevoll Seafood, Pacific Andes). However, globalisation through direct foreign investments presumably takes place only where the investment climate is positive and where the fishing or access rights ensure some sustainability of operations.

Domestic fisheries management settings

National fisheries management regimes are the cornerstone of fishers' income generation and ability to adjust in a flexible way to the changing market situation created by global markets. Fish prices are constantly under pressure from competing food items, from greater availability of imported fish and fish products and from aquaculture. Fisheries management settings can determine how many fishers have access to a given resource, the way that access is shared (quotas, fishing days, effort) and how fishing takes place. Fish prices are largely exogenous to the individual fisher (the fisher most often is a price taker either through fish auctions or through contract landings) and management settings will influence the costs of fishing operations and how benefits are shared. Furthermore, available evidence suggests that investors in the harvesting sector are likely to withhold investments when secure and enforceable user rights are not present (see Box 2.7 for a risk assessment note by Aker Seafoods for a share offering prospectus).

Box 2.7. Aker Seafoods business operations risk

Natural resources

Wild fish is a natural resource that fluctuates over time and geographically, both due to human impact through harvesting and environmental changes, and for natural reasons such as food supply, spawning conditions, currents and sea temperature. The extent of the fish and shrimp resources exploited by the Company is monitored by the Norwegian government. Current research causes the Group to believe that fish and shrimp resources in the foreseeable future will be sufficient for the Company to realise its objectives. Fluctuations in the fish and shrimp resource in areas in which the Company operates can adversely affect its profitability, and cannot be predicted or foreseen. No assurance can be given that adequate fish and shrimp resources will be available to the Group.

Quotas and licenses

The Group is dependent on government controlled licenses in order to operate its business. Licenses are granted for participation in commercial fisheries on a vessel by vessel basis. The Norwegian government sets annual catch limits (quotas) based on the research into the biomass for a given species. Licenses can also be withdrawn if their conditions are breached, or the Company otherwise fails to comply with applicable laws and regulations. The Group has all necessary licenses for its current operations. However, no assurance can be given that adequate quotas will continue to be available to the Group, nor that licenses will continue to be in place.

Source: Extract from Prospectus Aker Seafoods ASA at www.akerseafoods.com/_upl/files/prospectus_aker_seafoods_final.pdf.

Earlier work of the Committee (in particular, *Using Market Mechanisms to Manage Fisheries*, OECD, 2006) has highlighted the usefulness in leaving fishers and fishing companies' room for manoeuvre in planning their fisheries operations. One of the key findings highlighted:

The way in which different market-like instruments bundle together helps to determine the outcomes for the fisheries sector. In reviewing the experience of OECD countries, the study found that some instruments (such as individual quotas for effort and catches) are directed towards maximising the economic efficiency of resource use, while others (such as community catch quotas and some type of vessels catch limits) will allow fisheries to more readily adapt to short-term economic and natural fluctuations. Yet others (such as individual transferable quotas) are especially beneficial in facilitating long-term adjustment with respect to investment and capacity.

For these reasons, governments, when considering fisheries management reform, should consider the advantages of various rights-based management systems. In terms of globalisation, a key implementation gap for many countries is to revisit their domestic fisheries management and governance arrangements with a view to better responding to the opportunities of globalisation. Improved fisheries planning and more efficient harvesting company operations is a clear opportunity for fishers, consumers and, more generally, for the economy at large.

High seas governance

A particular challenge highlighted above relates to the governance of high-seas resources. While high-seas fisheries do not represent more than an estimated 11% of total fisheries, these resources are particularly difficult to manage as they are under shared management responsibility of several countries, resources are often straddling or highly migratory (e.g. tuna) or have “difficult” characteristics (i.e. deep-seas, long lived, late maturing and reproducing, e.g. Patagonian toothfish) and are not well known in terms of biological science (FAO, 2004).

Regional fisheries management organisations (RFMOs or similar arrangements) have been adopted as the appropriate means through which states co-operate to achieve and enforce conservation objectives on the high seas. Articles 117 and 118 of UNCLOS explicitly deal with the duty of states with respect to their nationals fishing on the high seas and on co-operation among states on high seas fisheries, as follows:

- Article 117: *Duty of States to adopt with respect to their nationals measures for the conservation of the living resources of the high seas*

All States have the duty to take, or to co-operate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.

- Article 118: *Co-operation of States in the conservation and management of living resources*

States shall co-operate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, co-operate to establish subregional or regional fisheries organisations to this end.

Thus co-operative behaviour among states is crucial for the success of high-seas fisheries management arrangements. As highlighted by Michael Lodge in “Are Present International High Seas Governance Structure Sufficient to Reap the Benefits of Globalisation?”, in

Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop (OECD), the 1995 UNFSA significantly strengthens the position of the RFMOs as the anchor to high-seas fisheries conservation and management, and underscores the need for co-operation among states on effective high-seas governance.

Meanwhile, the allocation mechanism for high-seas resources plays a particularly important role in ensuring stability, as allocation disputes can interfere in other decision making. Lack of co-operation in building effective decision-making rules and processes (including dispute resolution), alongside insufficient underlying knowledge for managing stocks, free riding and IUU fishing, by both members and non-members has, in certain cases, undermined the effectiveness of RFMOs. This has in particular importance for highly migratory and straddling stocks. In this regard, RFMOs may need to consider new approaches to the management and sharing of resources.¹³

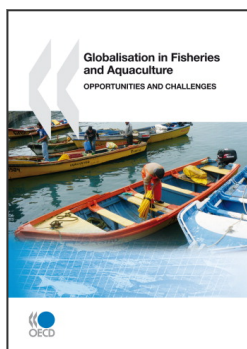
It would appear that a major policy implementation gap for the management of high seas fisheries is in effectively dealing with the allocation mechanisms of RFMOs so that they can ensure that the incentives for conservation are aligned across the current and potential membership. This includes modalities that can ensure participation of non-members that have a real interest in the fishery, and effective policies towards IUU fishing of members and non-members alike.

Furthermore, a number of actions can be taken at the national/supra national level to at least stem the IUU fishing problem. Measures include better surveillance, use of catch and trade documentation, augmented port state and flag state controls and increased international co-operation among fisheries agencies. Operators along the value chain also have a vested interest in seeing IUU fisheries curtailed as this can easily taint their image in a global market place.

Over recent years the agenda for the governance of the high seas has moved forwards. For example, in 2005, the FAO Committee on Fisheries endorsed a Model Scheme on Port State Measures to combat IUU fishing and more recently, building on this voluntary model, FAO members have entered into negotiations on a binding international instrument on minimum Port State Standards. It has yet to be determined whether this will be an FAO instrument or a stand-alone treaty but is likely to be completed in 2009. FAO members also agreed to convene an FAO Experts' Consultation on fisheries-specific criteria for assessing flag state performance, and to examine recourse when flag-state responsibility is missing. An initial workshop of international experts was convened by Canada in early 2008 as input to this FAO work. The formal FAO Consultation will take place in early 2009. Concerning the increasingly important issue of the environmental impacts of fishing and the special management needs of deep-seas fisheries, FAO members adopted, in September 2008, international guidelines aimed at improving the management of deep-sea fisheries, and especially steps to ensure that deep-seas fisheries do not cause significant adverse impact on vulnerable marine ecosystems (VMEs). These guidelines offer specific guidance on the implementation of the political commitment made by the UN General Assembly in 2006 to ensure adequate protection for VMEs in the high seas. The Sustainable Fisheries Resolution adopted in the UN in 2006 outlined a regime shift in the management of fisheries where there are such risks.

Notes

1. "Globalisation Overview" in *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop* (OECD/FAO, 2007).
2. FAO statistics indicate there are around 30 million fishers globally.
3. For example by holding quotas in different fisheries, fishing companies will be less vulnerable to fluctuations in resource abundance.
4. Paper presented at the Workshop on the Challenges and Opportunities of Fisheries Globalisation (16-17 April 2007).
5. Restriction on investments in the fishing industry has been analysed in an earlier work of the Committee for Fisheries, "Part II Special Chapter on Foreign Investment Issues in the OECD Fisheries Sector", in *Review of Fisheries in OECD Countries: Policies and Summary Statistics* (OECD, 2008).
6. Based on a review of websites of the 30 largest (by market capitalisation) publicly-traded fishing companies in the world; the information confirms that fish harvesters are generally focussing on domestic waters.
7. If all the FPAs are included, including the Pacific states and Greenland, the total amount is around EUR 160 million.
8. While most high seas fishing outside RFMO structures are "unregulated" (in that they are not subject to formal collective management, even though they are subject to internationally agreed principles and standards for behaviour of flagged vessels), it should be observed that they are not IUU fishing according to FAO definitions unless not conforming to such norms.
9. *Why Fish Piracy Persists: The Economics of Illegal, Unreported and Unregulated Fishing* (OECD, 2005) and *Fish Piracy: Combating Illegal, Unreported and Unregulated Fishing* (OECD, 2005).
10. *Ibid.*
11. "Policy Coherence and Fisheries: From Crises to Recovery, A Synthesis of the Workshop Deliberations", by Robert Picciotto, in *Fishing for Coherence: Proceedings of the Workshop on Policy Coherence for Development in Fisheries* (OECD, 2006).
12. "Perspectives on Fisheries Access Agreements: Developing Country Views", in *Fishing for Coherence* (OECD, 2006).
13. Additional information specific to regional fisheries bodies can be found on www.fao.org/fishery/rfb/search.



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