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GLOBALISED OUT? - A CASE FOR FISH TRADE IN DEVELOPING COUNTRIES

Workshop on Opportunities and Challenges of Fisheries Globalisation

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This paper is to be presented for DISCUSSION under Session 6 of the Workshop.

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LIST OF ABBREVIATIONS

ACP	African Caribbean and Pacific countries
CTH	Change in Tariff Heading
DWF	Distant Waters Fishing Fleet
DWFN	Distant Waters Fishing Nations
RoO	Rules of Origin
SCM	Subsidies and Countervailing Measures Agreement of the WTO
WTO	World Trade Organization

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**GLOBALISED OUT?
- A CASE FOR FISH TRADE IN DEVELOPING COUNTRIES¹**

1. INTRODUCTION

1. In line with Millennium Development Goal number one, that of eradicating hunger and extreme poverty, developing countries are increasingly seeking to develop their natural and human resource potentials. Of the 77 African, Caribbean and Pacific Countries (ACP), 60 have significant natural capture fisheries resource potential that is either subject to international trade, or can be commercialised easily. Fisheries are the only major natural resource in some of the ACP countries, especially Small Island States. In some cases such as Mauritania, Kiribati and Tuvalu, revenue from this resource accounts for more than 40% of Gross Domestic Product. This level of dependency on fisheries requires both national and international policy directed at ensuring that developing countries capture maximum value from trade in their fisheries resources.

2. Fish in developing countries, perhaps more than any other natural resource, is highly globalised. Fishing in Exclusive Economic Zones (EEZ) of most developed countries is almost entirely conducted by Distant Waters Fishing fleets from developed countries, with host countries being reduced to side-spectators awaiting some financial compensation from these foreign fishers. This is made possible by decades of subsidies by Distant Waters Fishing nations to their DWF fleets, during which they build their competitive edges beyond the reach of host developing nations. In the processing sector, imposition of stringent sanitary and phytosanitary standards and high bank interest rates have made it almost impossible for local investors to become competitive exporters. Many exporters in developing countries are therefore from developed countries, where they are able to access affordable credit. Developing countries have been gradually getting globalised out of their fisheries.

3. The expectation that developing countries will use trade in their fish as a tool for economic development presupposes that fisheries trade applies perfectly the laws of supply and demand, where there are many buyers and sellers, with no integrations amongst capture, processing and retail levels of the chain significant to cause monopolistic tendencies. Well, as discussed throughout this paper, this is not the case in developing countries fisheries. On the outset, 'globalised out?' seems an illogical question to pose, since capture fish belongs to whoever has legal right to its ownership. It first belongs to the State, since no one directly nurtures its growth, then the fisherman, the trader, processor, supermarket and eventually the consumer. This may be considered the value chain of fish, where every 'owner' has a right to bargaining for a price commensurate to the value they confer, and also an obligation to ensure every other level of the chain gains value from the commodity.

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4. Fisheries in developing countries, especially coastal and inland capture fisheries, mainly consist of artisanal or small scale fishers. Many of these countries practise 'open access' policy, where as many fishers as may wish gain access to fishing on the basis of being riparian communities. This poses a particular challenge to fisheries management in ensuring that exploitation is kept at sustainable levels, and in some cases has led to over exploitation especially in shallow or small inland water bodies. Their efforts are however aided by the fact that majority of these fishers use low technology crafts that are unable to exploit deeper waters which are almost exclusively left to industrial fishers. About 30% of fish harvested by small scale fishers is lost through spoilage due to lack of preservation facilities, and efficient infrastructure to move the produce to marketing centres. This presents the first policy challenge to developing countries: should it be normal practise to permit fishing access to persons who have no capacity to preserve and present their catch to the market in a wholesome and timely manner, or should a state encourage globalization of its fisheries in order to drive standards up, minimise post harvest losses and maximise rent collection? The question is made more pertinent considering that the fishers do not pay for the access, and therefore this represents a resource rent loss to the state, even though the fishers benefit. To what extent should the Government assist (e.g. in preservation of fish) those who are already privileged to have free open access? Generally, those who have the privilege of being granted access to a fishery on behalf of the rest of the public have an obligation to ensure that it contributes to economic development.

5. Further, fish processing such as drying and smoking in developing countries represents a price value loss, not addition. Dried (and often smoked) fish in many parts of Africa usually retails at about the same or even less price than fresh fish. This is despite the fact that drying fish results in about 60-70% loss in weight (moisture content of fish is about 70%), and therefore, to break even on raw material cost alone, dried fish should be at least twice the price of fresh fish, on weight basis. These technologies are mainly practised to save fish from spoilage by attaining shelf-stable products that may be easily distributed widely. This is not unique to processing in developing countries, because fish canning may also be regarded as a price value loss (the world market price for canned tuna is about 1US\$/kg, and that for fish for canning is also about 0.9-1.2 US\$/kg). Considering the urgent need to use fisheries as a tool for economic development, any transformation that results in loss of value needs to be discouraged.

6. With the exception of Lake Victoria in East Africa, the bulk of international trade in African, Caribbean and Pacific Countries is based on capture fisheries in their Exclusive Economic Zones (EEZ). Almost all fishing in these developing countries waters is carried out by Distant Waters Fishing (DWF) Fleets from nations such as Spain and France (the European Union), Japan, USA, Chinese Taipei, South Korea and China. These foreign fleets operate under fishing access arrangements with the host countries which involve payment of a sum of money for (sometimes a defined amount of) fish. On average, financial compensations to ACP countries for fishing access is between 3-6% of the value of catch. This is a small compensation level, if resource rent principles as applied in other natural resources such as minerals, forestry and crude oil are considered, and also bearing in mind that investment in fishing is much smaller when compared to others such as mining. Even though ACP countries are aware of these unfair compensation levels, they have so far been unable to bargain for better terms from the DWFN (Distant Waters Fishing Nations). This represents the first major distortion in international trade value chain in ACP fish.

7. Tropical fish fillets, whether tuna, tilapia, Nile perch or others almost invariably are bought from developing countries exporters at about 4US\$/Kg fob, and sold at about 14US\$/Kg (supermarket price). This implies that about 10US\$ value is captured at the developed countries level, even though there is hardly any value processing in these destination markets. The net effect of this is that net margins (including labour and energy costs) in developing countries are rarely more than 10-15 US cents /kg. This in turn leads to low landing prices for fishermen, which in turn encourages them to fish more to make ends meet, and this threatens stocks sustainability, and enhances poverty. Developing countries traders are unable to 'follow their fish' to market in developed countries and capture these lucrative margins because

of restrictions in trade in services imposed by these markets, such as movement of persons from developing countries to developed ones for genuine business.

8. Fisheries trade also suffers from restrictions targeted at value addition. Several markets impose tariffs targeted at punishing value addition and rewarding export of raw fish. This policy is aimed at using raw material fish to support employment in developed countries markets. This may be a legitimate right of buyers, but becomes morally unjustifiable when very little value is captured at developing countries level where fish happens to be the only economic mainstay. Inability by many developing countries to meet stringent sanitary and phytosanitary standards (which become more important during value addition) has often been cited as the main reason why developed countries are justified in importing raw material fish for further processing in their home factories. There has also been an argument that several of the final products from fish demanded by consumers in developed countries are so specialised that the technology and skills required are unavailable in many developing countries. The issue of quality control standards is disputable because several establishments in developing countries have now been able to attain standards comparable to those in the most demanding markets. Some establishments in ACP countries have been able to, in collaboration with firms in export destinations, make specialty value added products that are cost effective, and delivered to the markets in a timely manner. The Maldives are now making 'katsubushi', a traditional Japanese smoked and dried tuna flakes, and fresh Lake Victoria Nile perch fillets arrive in European supermarkets in under 48 hours from capture. To a great extent, the private sector in developed and developing countries have been trying, in the absence of policy support from either side, to bridge this trade divide by direct buyer-seller collaboration and capacity transfer efforts to facilitate flow of fish for trade.

9. Fisheries in developing countries will continue to make only marginal contributions to economic development unless developing countries are able to bargain for fair value for its access, capture more value along the value chain, and adapt technologies that enhance value addition. This paper asks the difficult question: To whom does fish belong in developing countries' waters? If it's obvious that it belongs to these countries, do they capture sufficient value to prove it? The paper discusses factors that limit developing countries (mainly in African Caribbean and Pacific Countries) from maximising their benefits along the fish value chain and value addition. In other words, how can developing countries benefit from the process of globalisation and how can these countries be linked into this process and benefit. In order to present a holistic view, the paper discusses value chain issues both at developing countries level and in export trade. It also offers suggestions on aspects for consideration in drafting policies aimed at maximising economic benefits to the ACP from their fisheries.

2. VALUE CHAIN IN DOMESTIC AND REGIONAL TRADE

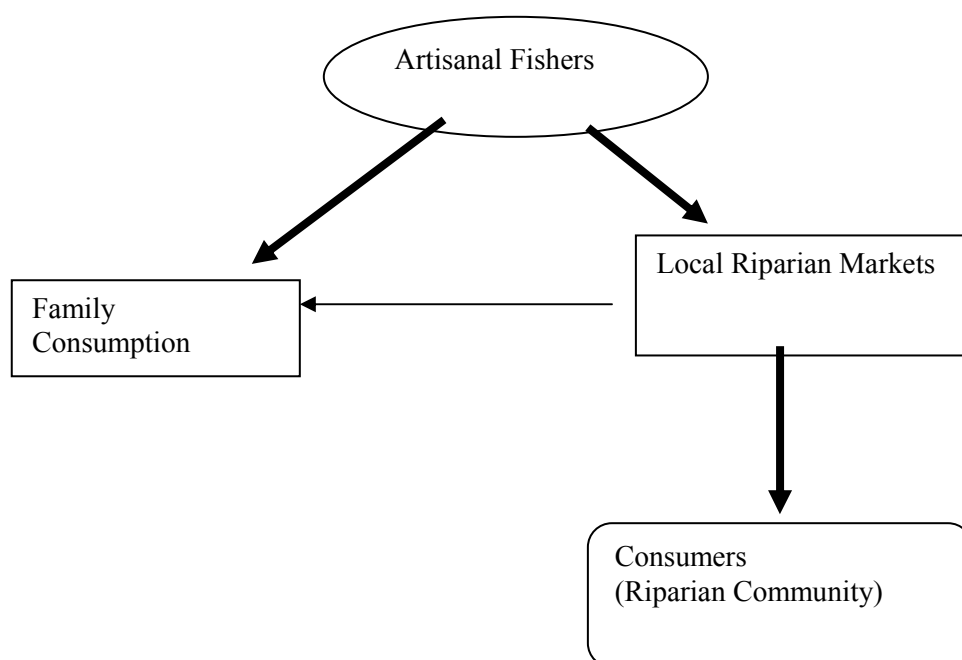
10. There is insufficient data on volumes of fish harvested artisanally or by small scale fishers and traded domestically or regionally in developing countries. In reality however, almost all lakes, rivers, coastal and reef fishing in most of these countries is harvested by this segment of fishers. Some of this fish such as tilapia, Nile perch and marine fishes such as kingfish and sea-bream is exported to developed countries destinations by factories that bulk and process them into high quality products. A greater volume of fish harvested artisanally by small scale fishers is however traded in markets around fishing areas, and also in major towns in regional countries, often after being processed in shelf-stable forms such as dried and smoked fish. In terms of value chain, this trade can be categorised into artisanal and small-scale commercial trade. This trade greatly helps in poverty reduction in developing countries because it often

involves many persons in its various stages, when compared to industrial fishing and developed countries export fish trade.

2.1 Artisanal Fish Trade

11. Under artisanal fish trade, the fish is usually harvested for domestic consumption, often with limited trading among immediate riparian communities along the water-body. The fishers use non motorised crafts, and volumes harvested are limited to average sales volumes in these surrounding markets. The fishers are quite selective on species harvested, since consumption of some species is considered a taboo. In Ethiopia for example, artisanal fishers around Lake Tana (the country's largest lake) deliberately avoid harvesting catfish (which occurs in abundance there) because its consumption is disallowed by communities around the lake, and instead go for tilapia and Nile perch. A typical fish marketing chain for artisanal fisheries is illustrated in fig 1 below:

Figure 1. Artisanal Fish Value Chain



12. There is hardly any fish preservation in artisanal fish trade, and the catch is usually sold on the same day. Some limited volumes may be processed into dried and smoked forms for marketing in distant (beyond 10km from water bodies), even though this level of trade is minimal in these fishing communities.

2.2 Small Scale Fish Trade

13. There is still no exact definition of artisanal and small scale trade, but it is now generally agreed that the two differ mainly in extent of commercialization, and types of crafts used. A small scale fisher is a professional trader, whose main thrust is to market his catch, and not feed family as is the case in artisanal fishers. He or she will often spend most of the day fishing, and will seek to sell catch as widely as possible, hence may harvest species his/her immediate community may not normally consume. Such fishing includes small scale octopus and squid fishers in North African Countries of Morocco and Mauritania and lobster fishers in Lamu (Kenya) and Somalia. Crafts used in small scale fishing vary in size and

sophistication, but are usually limited to mainly manual or single outboard engine vessels often not exceeding 15 metres in length.

14. Small scale fishers often use various means of transportation to transport their catch as fast as possible to markets. These include transport boats, bicycles, passenger transport vehicles and even small trucks. Unfortunately due to unhygienic handling facilities in the boats and landing sites, and lack of ice and other preservation facilities, about 30% is usually spoiled. The level of spoilage increases the further the fishers have to travel to reach market centres. This in turn affects price, as fresh fish attracts a much higher price when compared to semi-spoilt fish. In Bujumbura market (Burundi), fish sold at 4pm (from Lake Tanganyika) retails at about 50% of its value at 6-9am on the same day.

15. In terms of value chain, small scale fishing may be distinguished into two types; that which is segmented, with different persons involved at each level of the chain, and fishing which involves significant vertical integration among players on the different levels of the value chain. The value chains of small scale fish trade is illustrated below:

Figure 2. Typical Value Chain of small scale fish trade in small sized (sardine-like) fish species often consumed dried

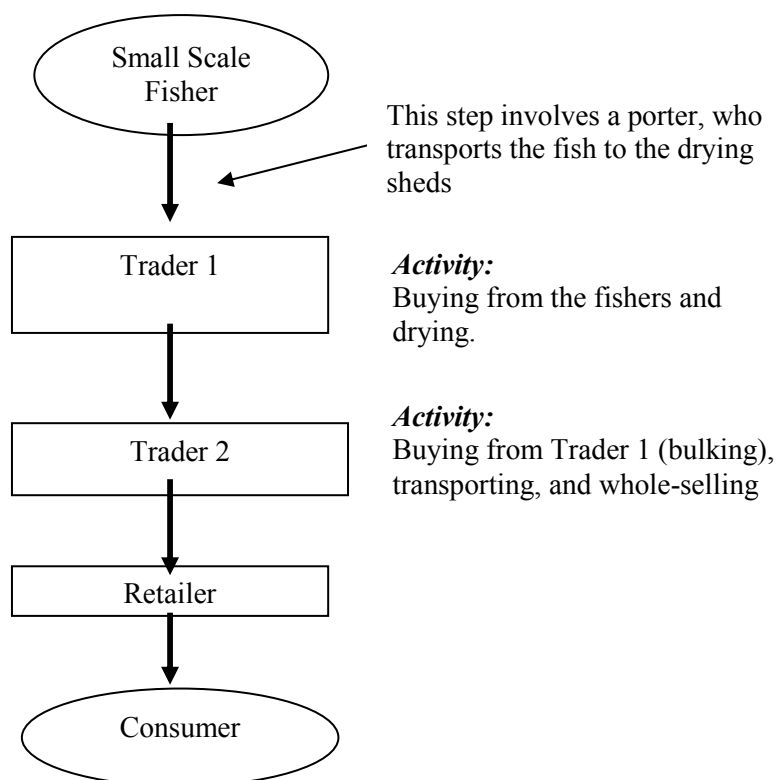
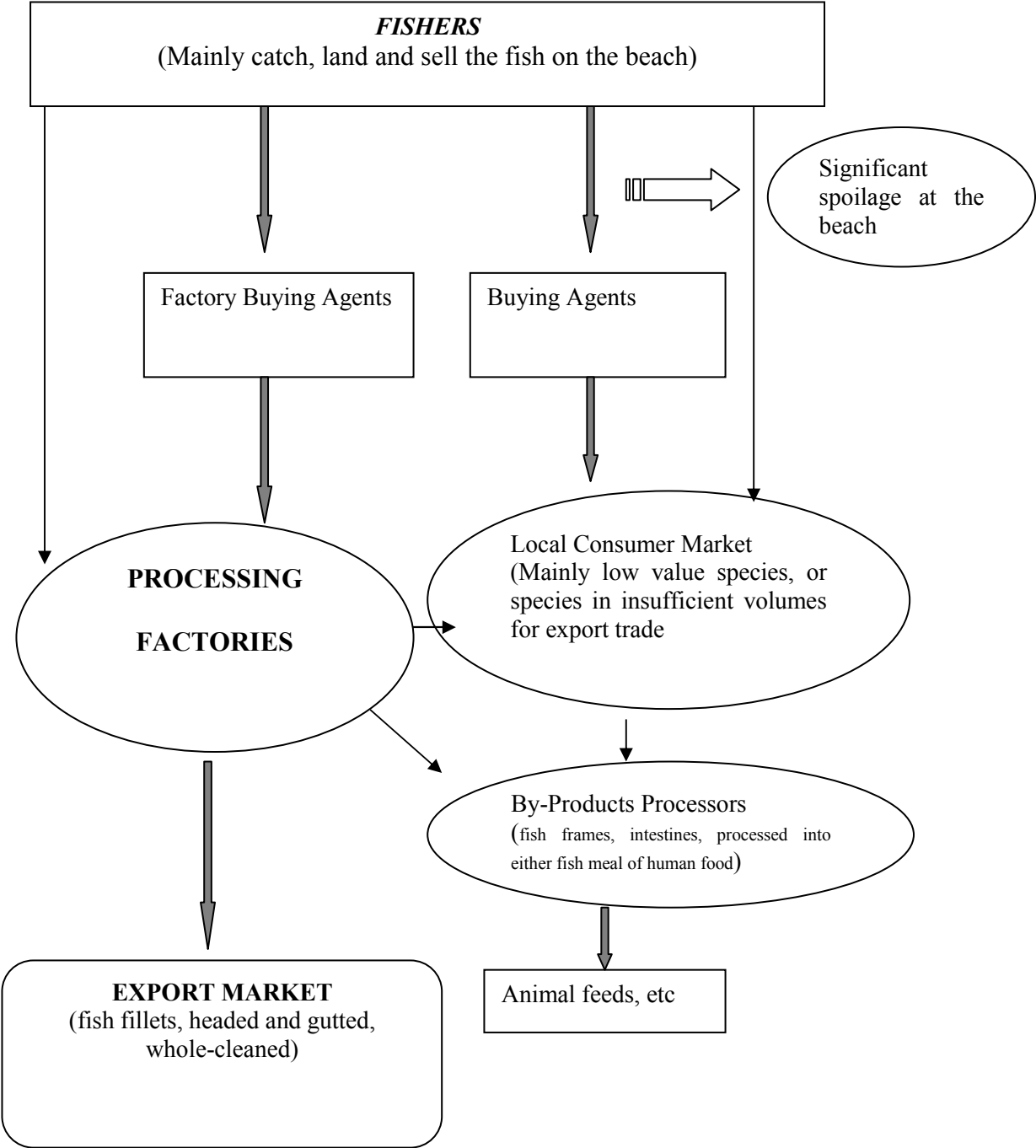


Figure 3. Value Chain for small scale fishers of high value export fish, or fresh-consumed domestic species (e.g. tilapia, Nile perch, marine fin fish, crustaceans, lobsters and cephalopods)



Semi Industrial Fish Processing in Developing Countries

16. Consumers in developing countries prefer fresh fish to processed forms. Fresh fish is preferred whole (gutted) which is either steamed or deep fried. In tropical conditions of an average ambient temperature of 30°C, fish spoils rapidly (the average shelf-life of tropical fish kept at room temperature is 6-8 hours after catch (depending on hygiene of handling facilities). If fish was caught by a set-net instead of hook and line, it may have been dead much longer before removal from water, therefore its spoilage would have started in the water. There is hardly any ice or other preservation facilities at landing sites, and marketing centres are usually far removed (at least 10 km) over a poor road infrastructure, which further exacerbates fish spoilage.

17. To counter the high spoilage rates of fish, traders in developing countries have devised appropriate technologies for processing shelf-stable products. These include dried, smoked, salted and fried products. Usually, fish is first marketed as fresh at major centres until about noon, then sold in the afternoon to small scale processors for drying, salting, smoking or frying. Some of the more stable (to spoilage) fish may be sold to these processors on the second day, but usually fin-fish which is unprocessed will spoil beyond consumption in 24 hours.

18. The concept of processing in small-scale developing countries does not necessarily represent value-addition. In some remote fisheries such as Lake Turkana in Kenya which is at least 400km from any major markets, almost all catch is sold dried or fried. When compared to price of fresh fish at landing sites, drying or smoking represents about 50-70% price value loss when compared to fresh catch (table 1).

Table 1. Dried Fish Value Analysis

	Price (US\$)
Average price of 0.5kg fish (e.g. tilapia) when fresh	60 US cents
Average price of the same price after drying (now 0.2kg)	15 US cents
Other costs:	Transportation, Labour and time spend drying (opportunity cost)
Value gain/ Loss	Loss of 45 US cents per 0.5kg (75% value loss)

2.3 Domestic Industrial Fishing

19. Domestic industrial fishing in developing countries is mainly confined to species that are difficult to harvest using small scale gear and craft (e.g. shrimps or fast swimming pelagic fishes), and fisheries beyond a 0-3 nautical miles coastal belt (depending on ocean bed slope) where the sea is too rough for artisanal/small scale craft. Most industrial craft from developing countries operate within the 12 nautical miles territorial waters, mainly because the sea is too rough beyond this range. Significant local industrial fisheries exist in countries such as Morocco (cephalopods), Kenya and Tanzania (shrimps), Ghana and

Senegal (tuna). These fishers mainly process and export most of their catch, and may sometimes purchase more of their target species from other fishers to attain economic volumes. These fishers also are the main suppliers of marine fish (freshwater fish is mainly supplied by small scale fishers) to markets in developing countries.

3. ACCESS FISHING

20. African, Caribbean and Pacific countries do not fish significantly in their Exclusive Economic Zones (EEZ's). Fishing in these waters is mainly carried out by Distant Waters Fishing (DWF) fleets from developed countries such as Japan, Spain and France (EU), South Korea, China, USA and Chinese Taipei, which are commonly referred to as Distant Waters Fishing Nations (DWFN).

21. These countries gain access to fishery stocks through access arrangements which may be summarised into the following types:

1. Government -to- Government access agreements, as is the case between the EU and several (16) developing countries (bilateral agreements), and also the USA-Pacific island Countries multilateral agreement (between the USA and 17 Pacific Island Countries).
2. Government- to-Private Sector agreements: as is the case between Pacific Island Countries and Japan Tuna Association
3. Rights based licensing of firms that have local base in the host country: as is the case in Namibia
4. Licensing (based on period, not catch levels) of foreign vessels without any specific policy on access fishing policy (e.g. in Tanzania, Kenya)

22. There are several pros and cons on the nature of these agreements (ICTSD 2006), but this paper confines itself to their value aspects. The value of these access arrangements for fish in developing countries EEZ is based on a payment of defined sum of money for either amount of catch, or period of access. The EU agreements compensate developing countries with 100 euro per metric tonne of tuna caught. The USA agreement with the Pacific Island Countries (17 counties in the Western and Central Pacific Ocean) is based on a lump-sum payment per year (21 million US\$ in 2005) regardless of amount of fish (tuna) caught. In general, according to an EU study (IFREMER 1999), financial payments for fisheries access agreements to developing countries accounts for about 2-17% of the catch value (table 2), with tuna agreements financial compensations averaging about 2.6% when downstream value added activities are considered.

23. This is a low level of compensation for a natural resource by any measure, especially considering that the level of investment required for EEZ fishing is much lower than that for mining (crude oil or minerals), and which attract much higher resource rent levels (about 30%). How are these figures arrived at, and why do the developing countries agree to such terms if they consider them unfair?. In order to answer this question, one needs to consider the process of negotiating access agreements between developed and developing countries. It is not true that developing countries with EEZ fish stocks float out an open 'tender' for whichever DWFN to come forward and bid for a fishing license. This would be the logical thing to do in an open market system, but in reality it does not happen. Access agreements are

arrived at through a negotiation process between the host country and DWFN such as the EU or USA, or with a private sector association (such as the Japan Tuna Association). In general, it is the country seeking access that initiates the negotiations, rather than the host country seeking a buyer for its fish, often because the developing country rarely knows the amount of fish available for access. These negotiations are almost invariably private, but the terms of the agreements may be published (as is the case with EU and USA agreements) or kept secret (as is the case with agreements with Japanese private sector). This lack of openness (both during negotiations and also about the final outcome) renders the process vulnerable to manipulations and possible corruption.

Table 2. DWFNs' tuna off-takes from WCPO and payments (2003)

	US	Japan	China	Korea	Chinese Taipei	EU
Off-take (2003) MT	94,003	366, 783	35,985	208,592	235,188	n.a.
Fleet number	16PS	157LL 35PS 35PL	106LL 8PS	150LL 27PS	153LL, 34PS	5LL 3PS
Financial Compensation/Economic Benefits	US\$21 million to 17 countries	5% catch value	5% catch value	6% catch value	6% catch value	€100/ton (about 12% catch value)

Source: Off-take and fleet number data, IOTC (2003) and FIAS (2000), adapted from ICTSD 2006. (PS: purse seine, LL: longline, PL: pole and line)

24. Many Distant Waters Fishing Nations do not regard payments made for access fishing as a trade. The EU for example refers to such payments as 'financial compensation'. Most agreements include components of development aid to the host country's fisheries sector. Also, even though it is not explicitly stated as a consideration in the agreements, the DWFN seeking access may already be providing substantial development aid to key sectors such as education and health in the host country. Further, it is unrealistic to expect a small developing country, which may not even have resources to carry out stock assessment of its EEZ fisheries to effectively negotiate a favourable bilateral agreement with the well endowed negotiations machinery of the EU, USA or Japan. There is clearly a need to implement international policies aimed at ensuring that access fishing is a normal trade, based on market competition, and contributing to economic development of developing coastal and island countries.

3.1 Value Added Associated with Access Fishing

25. There are substantial direct and indirect value added activities associated with fisheries access agreements in both host countries and Distant Waters Fishing Nations (DWFN). These include employment, boat and net repair and maintenance, services such as refuelling, re-supply with freshwater, and supply of essential commodities such as food and personal items for crew. On average, host countries capture about 10% of the overall value added value from access fishing (FIAS 2000, FREMER 1999).

26. Employment perhaps stands out as one of the most important direct value added effects of access agreements. Access agreements in the Pacific Island Countries are said to account for about 10,000 jobs to the islanders (FIAS, 2000). In the African continent, EU fisheries access agreements accounted for about 2,400 jobs in 1998 (IFEMER, 2000). To the developing islands and coastal countries, jobs on board DWFN vessels operating in their waters represent the only connection between coastal populations and these foreign vessels. Since these fleets mostly do not land their catch in the countries they operate in, they risk looking exploitative and unjustifiable to local populations unless the coastal communities have some of their own people employed on board.

27. Many fishing access agreements have clauses requiring that locals be employed on board the foreign vessels, but unfortunately an enforcement mechanism is usually not included. In the case of EU-ACP fishing access agreements, the Rules of Origin with regard to crew state that a vessel is qualifying if it has 50% or more crew from EU or ACP employed in substantive positions (Coutonou Agreement, 2004). This implies that a vessel operating in ACP countries can have 100% EU crew according to this multilateral agreement, and this denies ACP countries sufficient grounds to enforce more employment of their nationals in these vessels. Since many agreements lack an enforcement mechanism on local crew, this loophole is usually exploited by the vessel captains who are often reluctant to take local crew on board, citing reasons such as language barriers and lack of local crew with the necessary skills in EEZ fishery operations. These are genuine concerns on the part of the ship captains, but they could be resolved by training. A captain would however like to know that if he invests in training local crew (which obviously would take years), he has sufficiently long term possibility to operate in the waters to recover costs incurred. The main problem here is that there may not be policies in place in the two partner countries guaranteeing long term sustainability of these fishing arrangements. In the Pacific Islands however, there are organized training programs for both local fishing crew and observers which are funded mainly by the proceeds from the fishing access agreements. The initiation of this level of regional cooperation on training has been made possible by the collective revenue received from the multilateral agreement with the USA, and is now being funded by various donor organizations.

28. Many developing island and coastal states do not benefit from value added activities associated with their DWF fleets because they do not have fishing ports. Even though international treaties discourage transshipment at sea, most of these host countries do not have facilities to dock fishing vessels such as purse seines. The fish caught in their EEZ's is therefore transhipped at sea, or landed in other regional countries, where it generates value added revenue. Without a port, a country cannot benefit from value added activities such as repair of ships, net making and repair, and other stevedoring services. When fishing vessels dock, the crew need to make purchases of personal items, and the ships refuel and take fresh water supplies. In order to provide these support services, some host countries have invested in companies around the ports to produce required goods, and also in oil refining. On average, value added activities generate more revenue than direct fees paid for access in several host countries such as Seychelles. Some host countries (such as Mauritius) are therefore now aggressively marketing themselves to attract fishing fleets which operate not only in their waters, but in the region as well, to base or frequent at their ports.

29. Perhaps one of the ultimate objectives of host countries is to have all fish caught in their waters processed locally up to consumer unit levels. This would create employment, and shift significant value of the fish to the local level. There is even an increase in desire by the DWF fleets to process locally, considering the huge savings they would make by using cheaper local labour, and avoiding high costs of transporting whole fish as opposed to finished products. One of the main drawbacks is the lack of sufficiently skilled personnel in processing in some countries, and infrastructure (laboratories, factories for processing supplies such as packaging material or processing aids, back-up service for factory equipment, and cost-effective electricity and water supply systems). A further challenge is the competition such facilities would face from factories (especially canneries) already established in the Distant Waters Fishing

Nations (DWFN), considering that the jobs they create in these developed countries are perhaps the *'raison d'être'* for the political support of the DWFN to fishing access agreements.

3.2 The Subsidy Issue

30. Fisheries access agreements do not fit the conventional dynamics of international trade. The goods (access to fish) are usually negotiated (traded) at the government level and distributed to the private sector (DWF fleet) at a subsidised cost. On average, the EU commission and USA State Dept pays for 70% of cost of access for their private (DWF) fleet, which pays the remaining 30%. There have been strong suggestions that these payments are subsidies and should be discouraged. This may threaten incomes in developing coastal and island countries who derive up to 45% of their GDP, such as Mauritania, Kiribati and Tuvalu) from fisheries access payments. Their argument is that payment from a central government is more convenient and sure, compared to having to establish expensive monitoring, control and surveillance to collect revenue from foreign fleets. The central tenet of this argument is that as far as the developing countries are concerned, they are selling a resource to another government for a fee (which is not even as high as it should be), and therefore this is not a subsidy. It is however a subsidy to the DWF fleet when their countries extend it to their private sector, as is currently the case.

31. The capacity by developing countries fishers to access fish is usually also subsidized. This is done via subsidies in sectors such as shipbuilding, financial and repair services. The classical case of Korea vs. EU in the WTO in 2004 serves to illustrate this fact. The EU accused Korea of subsidizing shipbuilding, via a series of financial subsidies that resulted in Korean made vessels being 40% cheaper than others. Ruling in favour of the EU, the WTO dispute settlement panel report issued in March 2005 said that the EXIM (export import mechanism) financing amounted to prohibited export subsidies under the SCM Agreement. South Korea highlighted what it said was the core issue, in which the panel ruled in its favor by rejecting the EC claim that it had suffered "serious prejudice" from corporate restructuring of loans to three South Korean shipbuilders. In reality however, the EU has been subsidizing several aspects of their DWFN in the past, and still continue to do so especially through programs such as fleet modernization, and therefore South Korea may have been playing catch-up in this matter. In 2006, the European Commission adopted a draft regulation on *de minimis* aid in the fisheries sector. *De minimis* aid is state aid deemed not to distort competition. The current regulation exempts national aid of up to € 3 000 per fisherman, over a period of three years, from prior notification to the Commission. Under the new regulation, the ceiling would be set at € 30 000 per three-year period, per beneficiary, on condition that the total amount of such aid represents less than 2.5% of the annual national fisheries output. None of this aid may be used to purchase or construct new vessels or to enhance existing fleet capacity. In the fishing industry, the catching sector remains the dominant one and is likely to be the main recipient of *de-minimis* aid. If the ACP could provide their fishers with this level of aid (10,000€ per year), there would certainly be sufficient capacity to domestically exploit EEZ stocks.

32. WTO Members reached agreement in the Doha Ministerial Declaration (DMD) in 2001 to undertake negotiations on fisheries subsidies. In the context of these negotiations, WTO Members agreed to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries (Paragraph 28 of the DMD). Since the Doha Ministerial Conference, negotiations have aimed at identifying specific fisheries subsidies that would be targeted for 'disciplining'.

33. According to the World Bank (1996), global fisheries subsidies vary between US\$14 and US\$20 billion, which is approximately 20 to 25 percent of the turnover in this sector. These figures have been contested by OECD mainly on grounds of the accuracy of their calculations, especially considering a big proportion of these subsidies are in management and surveillance aspects. Several of these subsidies are mainly in shipbuilding, access fees, processing facilities, partnership joint ventures and financing. It is however difficult to accurately compute global subsidy loads in the fisheries sector, given that subsidies in

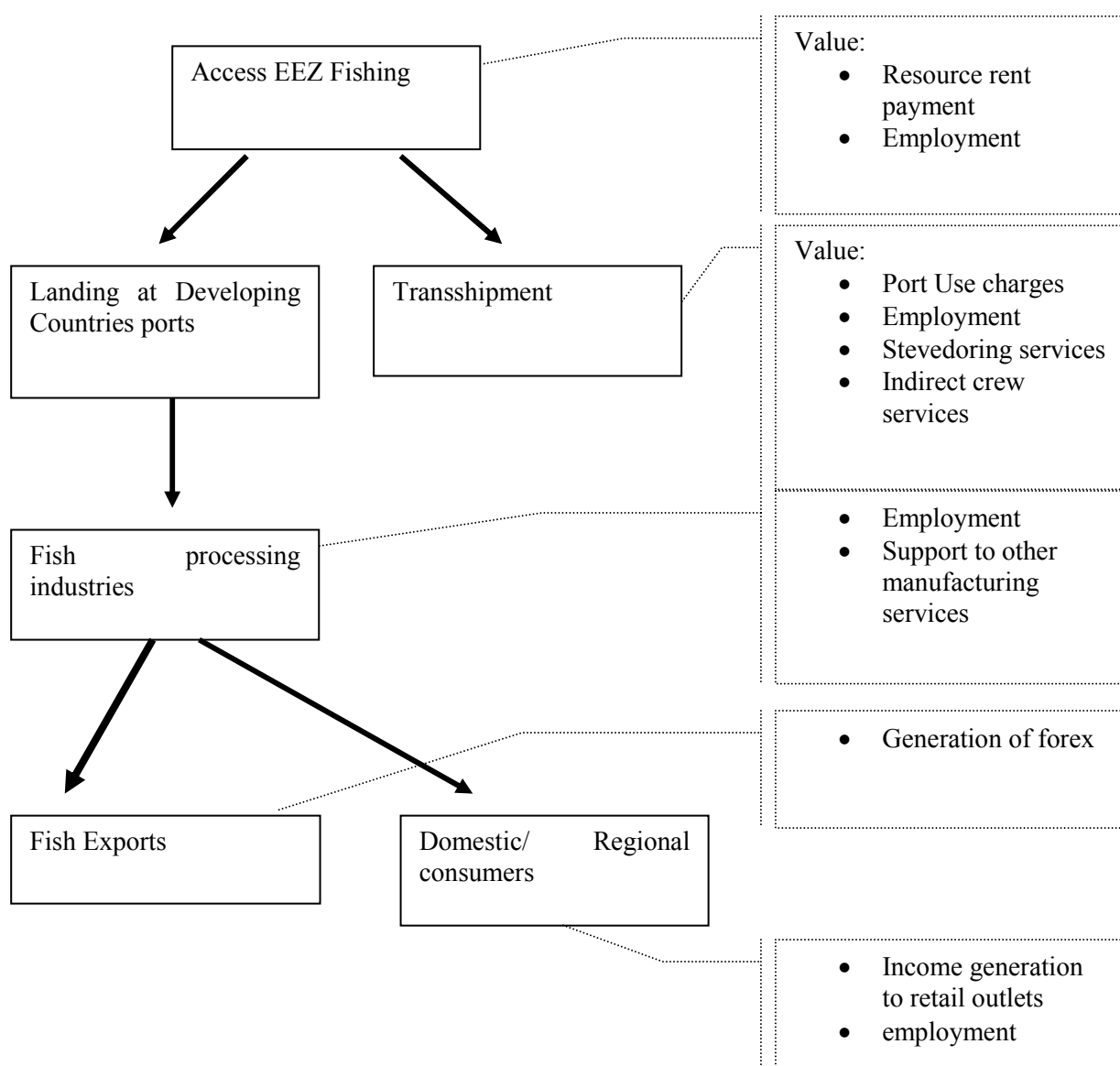
other sectors such as financial services often have impacts in fisheries also. Proposals in the current WTO negotiations on fisheries subsidies centre around the categorization of subsidy types into the 'red' (prohibited), 'amber' (actionable) and 'green' (permitted) boxes and the need for appropriate special and differential treatment measures. Capacity-building is one of the criteria being discussed to determine the categorization of subsidies. Capacity-enhancing subsidies (such as shipbuilding subsidies) are generally regarded as falling in the prohibited 'red' box. 'Green' subsidies on the other hand could include subsidies for environmentally-friendly technologies such as those aimed at by-catch reduction for endangered species such as turtles.

34. Discussions on fisheries access agreements and subsidies have tended to concentrate on two aspects: (i) conferment of benefits (through access fees) to developing countries and the DWF fleets; and (ii) production and supply distortions resulting from subsidies given to DWF fleets by their home countries. These two aspects may be important, but it is necessary to lay emphasis on a third critical aspect – *fisheries access agreements are rarely based simply on trade and their associated subsidies impede developing coastal and island states from exploiting their EEZ's*. Fishing access subsidies, therefore, should not be seen only in terms of the 'access fee subsidies'. Associated subsidies, such as those for shipbuilding and financing, targeted at DWF fishing, are of greater magnitude and arguably are more trade-distorting. Fishing access subsidies are the main reason why developing countries are unable to exploit their own EEZ, because the price of their catch would never compete with 25% subsidized fish. This, coupled with the fact that developing countries may not negotiate for a fair access agreement (at least as individual countries), means that they are being globalised out, and in effect deprived of the chance to use their fish as a tool for economic development, and this calls for urgent international attention.

3.3 Value Chain of Access Fish

35. Fishing under access arrangements could be a beneficial arrangement to both developing and developed countries if it was conducted responsibly, and according to well established trade practices. There would be value for developing countries in that they would get market based resource rent value for amount of catch accessed, employment for their nationals aboard the vessels, significant stevedoring activities income, and even value from services like provision of food and other basic needs for the workers when they call to port. A flow diagram of possible value chain for access fishing is illustrated below:

Figure 4. Direct and indirect value from access fishing in developing countries



4. EXPORT VALUE ADDITION ACTIVITIES

36. Even though export volumes of fishery products from developing countries remains small compared to total production, there is an increasing number of establishments in these countries that are export oriented. Tuna in the world market is still largely supplied through access fishing, but other species such as wild capture shrimps, lobsters, cephalopods and freshwater species such as Nile perch, tilapia and basa are increasingly being supplied by developing countries establishments.

37. These fisheries are processed into high quality products in establishments in developing countries, and air freighted or shipped to developed countries markets in a timely manner. These establishments have met the stringent sanitary standards imposed by developed countries, as has been attested by numerous inspection teams from destination markets. A summary of products processed is shown in table 3 below.

Table 3. Value addition activities on fishery products in developing countries

Fish type	Value addition activities and products	Price value added?
Fresh Fin fish: e.g. Tuna hake, Sea bream, Tilapia, Nile perch, basa	Filleting, gutting, cleaning. Products: fillets (fresh or frozen), headed and gutted (H&G), whole round	substantial
Frozen fin fish e.g. tuna mackerel	Canned fish products	minimal
Cephalopods Octopus and squid	Cleaning and gutting Exported fresh or frozen	substantial
Crustaceans: Shrimps and lobsters	Lobsters (Cleaning, heading) Shrimps (fresh whole, cooking, peeling)	substantial

38. These products are usually packaged in standardized sizes and packs before being exported to markets in developed countries such as Japan, EU and USA.

4.1 Challenges of Value Addition in Developing Countries

39. Fish processing and exporting establishments in developing countries face particular challenges which are either inexistent in developed countries, or whose magnitude are comparably higher. This increases the cost of doing business for traders in developing countries, making them non competitive and hence vulnerable to being globalised-out by traders from developed countries that may be accessible to more trade facilitating privileges (e.g. subsidies and affordable credit). These include the following:

Higher costs in sourcing of raw materials:

40. In many developing countries, processors have to bulk economic fish volumes from small scale fishers scattered over a wide area without sufficient road network. There are no auction markets around most fishing areas, and buyers have to rely on a network of agents to collect enough supply. This is expensive when compared to fisheries in developed countries, where processors can purchase sufficient volumes at auction centres even via the internet.

Infrastructure:

41. In developing countries, infrastructure such as roads and landing sites are poorly developed. This not only increases wear and tear of transportation vehicles, but presents a logistical nightmare of having to maintain freshness in this highly perishable product over the long distances travelled overlong periods of time. Other services such as ICT (information, communication and technology) are generally poorly developed, and this hinders efficiency in business transactions, raising costs.

Inputs:

42. The average kilowatt electricity cost in developing countries is much higher than in developed countries (often about three times). This is partly because of the technology used in power generation in developing countries (mainly hydroelectricity or diesel fuel) and is too expensive when compared to the cost-effective nuclear technology used in most developed countries. Other inputs such as potable water and processing materials are also comparatively more expensive. Labour is perhaps the only input that developing countries have an advantage over developed countries. Labour costs in developing countries may be up to 10 times cheaper than in developed countries, a factor that is sufficient to encourage a north to south shift in fish processing. Developing countries however lack skilled workforce for processing specialty fishery products such as *surimi* products, *shiokara* and *katsuobushi* consumed in markets such as Japan. Other labour challenges include lack of skilled personnel to maintain sophisticated equipment that may be necessary to improve processing and preservation efficiency.

Affordable credit:

43. A basic fish processing establishment (such as for processing chilled fish fillets) costs a minimum of 3 million US\$ to construct. This level of investment requires easy access to affordable credit. In developing countries, bank interest rates are about 15-24%, which is well above profit margins of fish export trade. The argument for these high interest rates has been the high risk factor to lending by the banks due to frequent defaults. When compared to offshore and developed countries rates of about 4-6%, developing countries interest rates are one of the main factors limiting investment in this sector.

Increased costs due to SPS Measures:

44. It is expensive, and currently unaffordable by most domestic fisheries entrepreneurs to meet the high costs associated with meeting the stringent SPS (sanitary and phytosanitary) standards imposed by markets in developed countries. At the moment, a fully compliant fish processing (e.g. filleting) export facility costs about 3 million US\$ to establish. This high cost has had the negative effect of forcing closure of most indigenous fish processing establishments, and their replacement by foreign-linked firms. These foreign firms sometimes have vertical integrations with foreign fishing vessels in the countries EEZ, and also linkages with distribution networks in export destinations. Under such circumstances, local firms have found it difficult to compete, which has led to more marginalization at developing countries level. Some countries such as Namibia have had to come up with programs such as 'Namibianization' of their fisheries, or 'black empowerment in South Africa' to address this problem, while at the same time upholding the principles of free market economies, and this is a daunting challenge.

4.2 Tariffs and Rules of Origin as Fish Trade Barriers

45. There has been a tendency by developed countries to impose measures aimed at encouraging exportation of agricultural, fishery, forestry and mining raw materials from developing countries in order to support high value processing in their countries. Fish, both from access arrangements and other export trade is important in supporting processing establishments, port facilities, employment and support service factories in several towns in the EU and far east. Without this raw material fish, the socio economics of

these developed country economies would be severely affected. These countries therefore consciously maintain political pressure to ensure that value addition of the target species at source is discouraged, mainly through introduction of rules of origin that reward export of raw materials and punish export of processed products.

46. The use of tariff escalation is one of the main tools used in discouraging export of value added fish. Fish which is added value to a certain extent (such as canning) is categorized on a different tariff heading when compared with whole gutted fish, or fish fillets. These differentiated products are subjected to different tariff levels, which normally increases with the extent of value addition. The price of the final product is not necessarily the determinant of level of tariffs, but rather the extent of working (processing or other actions), as these are important in creating indirect value added (employment, support industries etc) in destination markets.

47. ACP countries are fortunate in that they may export fishery products into the EU market duty and quota free. The catch in these arrangement is that the fish must be 'originating', meaning that if harvested from the EEZ, it must have been caught by a vessel owned at least 50% by EU or ACP (including chairman of the Board of Directors), with crew that is at least 50% EU or ACP (including the ships master), and not caught using a chartered vessel outside EU ACP unless the host country had offered to negotiate an access agreement with the EU and the EU refused. In simple terms, fish from ACP EEZ may not be sold into the EU if caught with cooperation from other Distant Waters Fishing Nations. With regard to value addition, an example from Mauritius illustrates the complications this brings. In Mauritius, the canning factory can procure raw material fish from the Asian fleet in its EEZ much cheaper than from the EU fleet. If they do so, they will not be able to export the canned fish (obtained from Mauritius) to the EU duty and quota free. They are therefore obliged to use expensive fish (from the EU fleet) for canning, and this erodes their competitive edge. These rules of origin are unfair in that they not only restrict ACP countries to engage in joint fishing activities, but also hinder competitive value addition of ACP fish.

48. There is a process underway between the ACP and the EU to revise current rules of origin under the on-going Economic Partnership Agreements (EPA) negotiations. The aim is to achieve the twin objective of ensuring other DWFN in ACP waters do not use ACP countries as a conduit to export fish to the EU (protection from cheap fish) on one hand, and also acknowledging that all fish in ACP EEZ's is originating, and therefore should have a chance to participate in trade with the EU. One of the mechanisms proposed is to replace the 50% rule mentioned above with a value added criterion. The difficulty lies in setting an agreeable level of value addition which previously non originating fish (caught by non EU-ACP vessels) would need to be subjected to in ACP countries in order to qualify.

49. The argument for use of value added criterion is in line with Kyoto Convention of 1973 which states that:

- Where two or more countries have taken part in the production of the goods, the origin of the goods shall be determined according to the *substantial transformation* criterion.
- Notes to Provision 3, Annex D1, Kyoto Convention, 1973 state that substantial transformation shall be determined in 3 ways:
 - by a rule requiring a change in tariff heading in a specified nomenclature with lists of exceptions;
 - and/or by a list of manufacturing or processing operations which confer, or do not confer, upon the goods the origin of the country in which the operations were carried out;
 - and/or by the *ad valorem* percentage rule, where either the percentage value of the materials utilized or the percentage of the value added reaches a specified level.

50. The Kyoto convention therefore does not allow a definition of originating status to be based on crew or vessel ownership nationality, and this has been one of the fundamental incoherencies of the EU-ACP Rules of Origin (RoO) with this international convention. Both the EU and ACP have not disputed that that the review could focus more on value added aspects, but the contention is what level of value addition, or what Change in Tariff Heading (CTH) would be acceptable.

51. Proponents of CTH argue that it is easy to apply and enforce, as it involves transformation of a product from one form to another (physically discernible), and therefore will not result in increased customs verification costs. The concerns of the EU have however been whether the CTH will be accompanied by ‘sufficiently added value’ to justify its qualification for duty and quota free access to the EU market. The main thrust of CTH has been ACP countries with canned tuna, who would like to see it qualify because it’s a different tariff heading (16) as opposed to tuna loins (heading 3). There have been mentions (during pre negotiations consultations) by the EU of about 30% value addition as being an acceptable threshold, levels which cannot be achieved in canned tuna, and therefore are unacceptable to most ACP countries.

52. Proponents of value added criterion (with or without a CTH) argue that it is a more sensitive measure of ‘sufficient working’, and is flexible enough to be used for any fishery product. This arises from an observation that even though some measures such as filleting of fish (which results in yields of 40% on average from non gutted fish) may result in a CTH, others such as peeling of shrimps, flavouring of a loin, portioning and packaging of fish may resulting significant value addition, but not qualify for a change in tariff heading.

53. This has also introduced discussions on whether to use *ex factory* values or *Net Production Costs* of the various processing steps. A transformation of fish from loins to canned may not always be accompanied by an increase in ex-factory price. In reality, tuna fillets are about 4-7 US\$/kg on the international market, while canned tuna is about 1US\$/kg, meaning that tuna canners make money mainly by ensuring that they trade in huge volumes, given the minimal margins per can. This is almost value-loss from the unit price point of view, but offers traders with a convenient product that is preserved, and therefore can be marketed widely. Other forms of processing such as breaching and battering have similar price behaviors, but their value is again more in product diversification and preservation than unit price increase. Fisheries RoO may therefore benefit more from a use of net production costs criteria than *ex-factory price*.

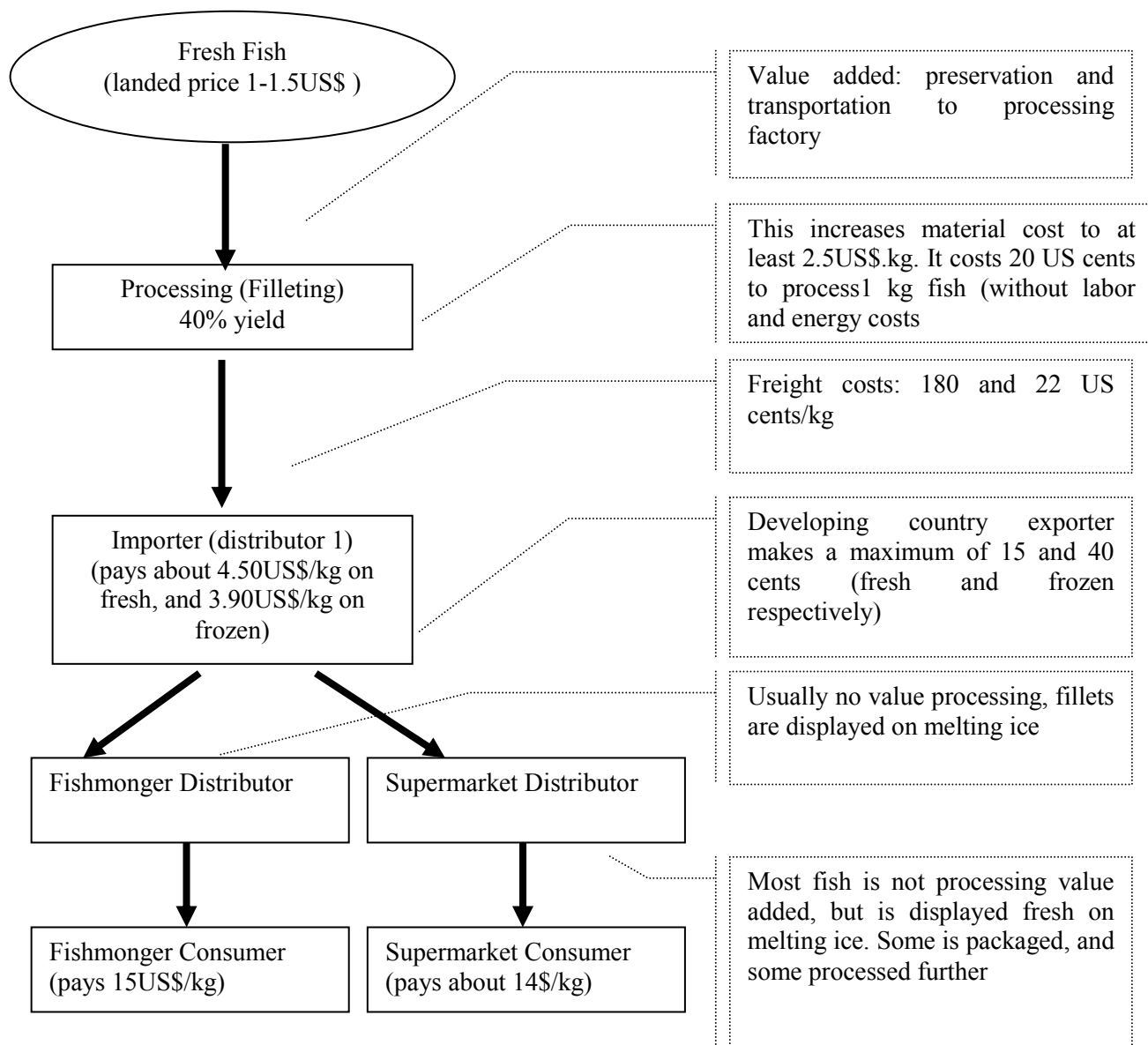
54. In all, it is acknowledged that there will be need to develop standardized assessment methods for a value added criterion, with agreed limits of level of value added, and this will definitely result in increased cost of customs verification procedures. It is however the only (current) way in which all fisheries products would benefit from new rules of origin that seek to confer originating status to fisheries products that are 'sufficiently worked', and not just a few products. A compromise position would be for the ACP and EU to agree on a level of value addition that both parties see as being sufficient to have fisheries products from ACP states, which may not have qualified on the basis of their area or means of catch, conferred as originating. This value could be set low enough (not more than 15%) to accommodate transformed products such as canned tuna, and this would in turn lead to an almost automatic qualification of other fisheries products once they are processed, regardless of whether there was a CTH or not.

5. EXPORT FISH VALUE CHAIN

55. As earlier discussed, developing countries are increasingly exporting various fishery products to developed countries. These include fish fillets (fresh and frozen), gutted and cleaned cephalopods, headed (and sometimes peeled crustaceans) and whole round and gutted fish. The products are either air freighted (when fresh) or shipped (frozen) to destinations depending on profit margins after freight costs. A typical value chain of export fin fish (tuna, tilapia or Nile perch) serves to illustrate the value and activities at each level of the chain.

56. There is at least a 10US\$/kg difference between what a consumer in a developed country pays, and what is paid to the developing country exporter. The consumer price of fillet is about 250% more than the export price. Many developing countries assume that this huge difference in price may be explained by value addition activities that take place on the product prior to consumption. In reality however, most fresh fishery products exported from developing countries undergo minimal (if any) value addition at the developed country level. The highest (price) value for fish is in its fresh form; fresh fillets, crustaceans or cephalopods. As soon as any transformation (even freezing) is undertaken, the price falls. In this regard, fresh imports into developed countries markets are transported as soon as possible to retail places (supermarkets and fishmonger shops) and sold on melting ice. Apart from road transportation and some limited warehousing, fresh fish does not undergo any other value addition. Where then does the 10\$ difference go to? It is shared among the 3-5 step distribution chain in the destination market. This level of value capture at this end of the chain is disproportionate to the value captured at developing countries level, considering that the main value addition activities (catching, processing and air freighting) are undertaken there. Some explanation for this may be differences between exporting and importing countries in aspects such as taxation and the cost of doing business, but the margin are still too large to be fully accounted for this way.

Figure 5. Export Fish Value Chain



5.1 Barriers to Distribution Services in Export Markets

57. If indeed developing countries feel that their fish value is mainly retained at the market side of the chain, why don't they just set up distribution services and 'sell their own fish' in developed countries, and therefore capture the value themselves. This seems to be the best way of capturing and repatriating value for developing countries fisheries, but it is seriously impeded mainly by restrictions imposed by developed countries on services sector. There are 4 modes of services that are being negotiated at WTO and other multilateral trade negotiations between developing countries and developed countries. These include:

- Mode One (Cross Border) Services refers to cross border trade services where there is no movement of persons, such as financial transactions, consultancies or postal services.
- Mode Two (Consumption) Services refers to those services where the consumer moves to consume the service in a destination country, and returns back to his/her own country (e.g. tourism and medical services)
- Mode Three (Commercial Presence) Services refers to activities which necessitate physical presence of persons in another country to set up businesses. This includes activities associated with processing investment, banking or other Foreign Direct Investment (FDI) activities.
- Mode Four (Temporary Movement of Natural Persons) refers to the whole aspect of free movement of persons.

58. In order for developing countries to 'sell their own fish', there will be need for developed countries to open up more in mode 3. This should be justified by the fact that if developing countries can be allowed to set up distribution systems for their products such as agrochemicals, banking and pharmaceuticals in developing countries markets, then developing countries should be facilitated to distribute whatever resources they have in developing countries. The ability of Iceland to set up Icelandic fish (Icelandic cod) distribution system in markets such as the USA is usually credited for the positive turnaround in the sector's ability to contribute greatly to the country's economic development. This was because Iceland was able to capture a lot of the margins in the marketplace by selling as close to the consumer as possible.

5.2 Value Addition of Export Fish in Markets

59. There is some value addition that takes place on developing countries fish after arrival in market destinations. This is usually targeted at fish that may not be sold in fresh state (either because it is frozen or is received in huge volumes which may not be conveniently sold fresh in the 2-3 days fish is able to stay fresh). These value added activities include:

- Processing of products such as canned fish, fish fingers (breaded and battered) or other preserved fish products (dried, smoked)
- Processing of shredded fish products such as surimi, fish sausages and fish pastes.
- Processing of fish extracts (e.g. EPA –Eicosa pentaneic acid, and DHA –docosa hexaneic acid which are used in medical nutrition)

60. Most of the processing that take place in developed countries can easily be undertaken in developing countries. These include portioning into consumer units, consumer retail packaging and caning.

Even the complicated processing of surimi and dried fish technologies in consumer countries such as Japan can be undertaken in developing countries if sufficient capacity building measures are undertaken.

5.3 Policy Considerations

61. There is a need for both developed and developing countries to work together in order to ensure that fisheries contribute more to development of economies in developing coastal and island countries. Such considerations may include the following:

1. Policy considerations at developing countries level that seek to minimise wastage of fisheries resources through post harvest spoilage. Such a policy could consider to either introduce punitive measures for unhygienic handling and poor preservation of fish, or introduce rights-based fishing where citizens purchase access, therefore have more incentives to preserve their catch (since they paid for it). Post harvest preservation of fish may not be achieved wholly on voluntary basis without legislation back-up, since the price for fish for both those who choose to invest more ice preservation (where ice is available) and those who do not is usually the same at the early periods of a marketing day.
2. Policy considerations at international level aimed at removing the obscurity that now surrounds fisheries access agreements, and ensuring that these arrangements are regulated through international trade instruments implemented through World Trade Organization. This would make fishing access a tradable commodity, with various DWFN bidding for it, hence encouraging developing countries to capture more value. Such measures should also be accompanied by measures to eradicate any current subsidies, and residual impacts of past ones.
3. Policy considerations that aim at eliminating fish trade tariffs to developing countries. Other restrictive measures such as unfavourable rules of origin also need to be eliminated. There is genuine progress in multilateral trade negotiations such as between ACP, MERCOSUR blocks and the EU or USA in addressing these barriers, which should be encouraged.
4. Policies that seek to retain fisheries value at developing countries by discouraging export of raw material fish, and encouraging a certain level of value addition to be retained at country level.

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