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FISHERIES GLOBALISATION: MID-TERM REVIEW

This paper provides an overview of progress to date on the fisheries globalisation study.

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For further information, please contact:
Carl-Christian SCHMIDT (E-mail: carl-christian.schmidt)

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Introduction

1. When deciding on its 2007-2008 Programme of Work, the Committee for Fisheries agreed to a Study titled, "Globalisation and the Implication for the OECD Fisheries and Aquaculture Sectors". A detailed mandate for the project was agreed as follows:

> "……[The Study] should outline the broad range of consequences of globalisation for the sector, actual and potential inhibitions to adjustment to globalisation, and how these might be addressed. The project should focus on particular issues including how uneven regulation and management of fisheries worldwide gave rise to a range of opportunities and risks from the process of globalisation. The costs of policy inaction, the linkages between OECD and non-OECD countries as well as policy coherence were also highlighted as areas of concern. The value chain approach was found to be a useful way to frame the project."

2. The purpose of this paper is to provide a status report regarding the development of this Study. At the outset, it is worth recalling that the Committee agreed to host a Workshop on, "The Challenges and Opportunities of Globalisation in the Fisheries Sector", to take place in Paris from 16-17 April, 2007. This important event will enable the Committee to gather substantial evidence for the project and enrich the analysis.

What is globalisation?

3. In one sense, globalisation is the process of economic integration of markets. It is the result of economic agents taking advantage of cheaper production factors available abroad. This could be due to differences in labour costs, raw material prices, access to raw material and capital, and regulatory frameworks that provide incentives for firms wishing to maximise their profitability. Closer economic integration among markets takes place in a number of ways including through traditional trade (cross border movement of goods), foreign direct investments (owning assets abroad), the use of foreign services (use of foreign service facilities or outsourcing abroad) and through labour movements (migration). In essence, transborder production networks emerge when different elements of the value chain, to varying degrees, take part in the globalisation process by using the most profitable location for their activities.

4. While, on the one hand, economic agents seek to maximise their profitability through pursuing "better deals" in other markets, they are, on the other, also subject to relevant regulatory frameworks. These frameworks structure the way the globalisation process takes place; frameworks may stop/regulate certain practices, or, in other cases, they may be in place to support the globalisation process. In other words, regulation creates an enabling environment that seeks to manage the risks and maximise the benefits associated with globalisation.

5. Globalisation is an ongoing process which has increased rapidly in recent decades as communication and transport costs have been reduced significantly and border restrictions have been

reduced or eliminated. In many countries, a more open trading and investment climate is in place, allowing countries to reap the benefits of lower trade and investment/services barriers.

6. The globalisation process has also altered the fisheries sector, as is outlined in chapter 1 of the study. In fact, the fisheries sector has been 'going global' for many hundreds of years due to the high mobility of fleets, the migratory nature of certain fisheries and the development of fish conservation techniques (salting, drying, and later, freezing). The fifteenth century herring trade in North Eastern Europe and the development of cod fisheries off the Canadian Grand Banks in the sixteenth century are cases in point. Such developments, mostly observed through increasing trade, were fuelled by better handling techniques and a growing appetite for fish in certain markets.

7. More recently, however, the process of globalisation in fisheries has become more complex as various parts of the value chain adjust to new opportunities created across the globe. In addition, and affecting value chain elements to various degrees, newly established international or national frameworks add complexity to the process. More particularly, international trade approaches and the rise of power of the consumer alongside international environmental non-governmental organizations (ENGOs), puts pressure on retailers, wholesalers and food service industries in terms of sustainability and specific production and harvesting techniques.

8. New players, institutions, legal frameworks, international commitments and action plans affecting fisheries interests/stakeholders and, in general, more complexity, have fueled the need to better understand the globalisation process. The overall aim of the globalisation study is to identify if current national and international fisheries management frameworks are able to cope with these new pressures. This has implications for future domestic and international policy formulation and implementation.

9. The following will briefly highlight the main elements of the study that have been discussed so far by COFI.

Elements of the Study

10. **Chapter 1** of the Study is entitled, "Trends in Globalisation and the Fisheries Sector", and provides a scene-setting description of the main trends underlying globalisation. This includes socio-economic and demographic elements and traces the history of globalisation. The present globalisation wave is characterised by rapid integration on a global scale and with a high degree of visibility. Compared to previous waves of globalisation, the present wave involves greater trade and financial flows and hence an unprecedented high degree of economic integration between markets.

11. As for the fishing sector, globalisation is associated with a *harvesting sector* that is overcapitalized and with marine capture resources that are overexploited. As a result, more emphasis is now being placed on investments in aquaculture, a process that is likely to continue and accelerate as capture resources become increasingly rare and developments in technology favour the aquaculture sector. The key national policy challenge is to ensure sustainable resource use and ensure national fisheries management regimes provide an economically efficient working environment for the fleet and fishers. This can best be achieved through the use of market based fisheries management models as already developed by the Fisheries Committee (see "*Using Market Mechanisms to Manage Fisheries: Smoothing the Path*").

12. As noted, the *aquaculture sector* is playing an ever increasing role, partly as technical hurdles are overcome and partly as the demand for fish continues to increase (i.e. there is a strong link between rising incomes and demand for fish and fish products). Farmed fish have some important advantages over wild fish, in particular their growth in a controlled environment that allows harvest and marketing in line with demand. In turn, this means that consumers and retailers have a constant flow of fish and are not dependent

on seasons and weather conditions. While national authorities should ensure that aquaculture installations do not pollute the marine environment, an important national policy challenge is to provide an economic environment in which businesses can exploit their comparative advantages and profitably expand in response to market demands.

13. The *processing sector* has taken advantage of more integrated markets. Although fish is a highly perishable raw material, low transport costs combined with better handling and transport systems have made it feasible to move labour-intensive processes to low labour cost countries. Examples include the transport of cod fish from Norway/Denmark to processing facilities in Poland, shipments of fresh Norwegian salmon for filleting in China and shipments of frozen Canadian salmon for canning in China. Such outsourcing will continue as long as labour cost differences are sufficient to cover costs of transport, quality differences (differences in yields) and tariffs (if subject to).

14. The principal policy challenges for the processing sector relate to ensuring appropriate sanitary and hygienic conditions in fisheries and the further liberalization of trade and investment regimes insofar as there are still some trade/investments and services restrictions in place. Health and safety standards in processing are vital if consumers are to have sufficient confidence in fish and fish products. This relates to both domestic- and foreign-processed fish and fish products. While it may be fairly easy to control the domestic fish processing industry through regulation and verification procedures, ensuring that foreign fish and fish products (and processing facilities) are producing wholesome products is a much larger challenge, particularly with respect to developing countries.

15. Another major policy challenge for the processing industry is to ensure that trading and investment regimes are as liberal as possible. As has been outlined in previous work by the Committee for Fisheries (in particular, *"Liberalizing Fisheries Markets: Scope and Effects*" and its recent work on Foreign Direct Investments and Services), there are still a number of trade and investment/services barriers in place in OECD countries albeit less so in the processing sector. Hence, ensuring a healthy trading and investment climate is a major policy challenge for OECD countries.

16. The *retail sector* has undergone major changes over the past decades; very large retailers play an increasingly important role as an outlet for fish and fish products. In some markets, large retailers account for more than three quarters of fish sales at the retail level (excluding catering). In addition, a tendency towards backward integration exists i.e. major retailers invest in harvesting/processing, with a view to ensuring a better and more secure flows of fish across the value chain. Increased control of the fisheries value chain has become an important objective for retailers. By the same token, retailers have become major trans-national companies, thus benefiting from economies of scale in sourcing.

17. It is the retail part of the fisheries value chain that is a major driving force in promoting sustainable fisheries through their buying behavior. Retailers have rapidly taken on responsibility for ensuring that the products they sell are from sustainably managed sources. This occurs either through the use of existing eco-labeling schemes or through the establishment of own-buying-criteria.

18. The principal challenge for policy makers with regard to retailing is how to respond to the increasing call for sustainable fisheries. This has two elements; one is the introduction of sustainable fisheries management *per se*, the other is to ensure that buying practices and eco-labeling/certification schemes do not become *de facto* trade barriers. In this respect, more research is required to better understand implications of the use of eco-labeling approaches and formulate appropriate responses.

19. *Fisheries governance* plays a crucial role in forming the globalisation process while ensuring that fisheries resources are used in a sustainable and responsible manner. A large body of arrangements exists that affect how fish are managed, caught and traded; this is reflected in Declarations such as the WSSD,

G-8 and the Millennium Development Agenda, the Convention on Biological Diversity, and many UN-related debates. Policy challenges discussed at these levels include fisheries subsidies, IUU fishing, sustainable development of fisheries, the more efficient use of fisheries management instruments in relation to international law, policy coherence, regulations and other ocean management and conservation tools. Developments have been crucial in this area over recent decades with the adoption of major new frameworks governing the high seas and national fishing zones, including UNCLOS, the FAO Compliance Agreement, the FAO Code of Conduct and the UN Fish Stocks Agreement. The key policy challenge for member countries is to ascertain if the existing body of arrangements (national and international) is sufficiently "strong" to protect resources under pressure from increasing demand and competition in markets for fish and fish products. Managing such "risks" through more appropriate and efficient fisheries management models in an important policy challenge and an area where policy reform may be warranted.

20. **Chapter 2** of the Study outlines a model for structuring the complex information needed to understand the globalisation process. Drivers of globalisation are economic (i.e. capital and labour costs, costs of access and technology); social (population growth and changing consumer preferences); environmental (climate change, pollution, the role of technology and environmental legal frameworks) and institutional (issues of sustainability, consumer objectives and tariff pressures). These drivers are considered for each element of the fisheries value chain. Fundamentally, the fisheries sector is no different from other sectors of the economy in the sense that operators in the value chain will seek to maximize their profitability. Across the value chain elements, however, the ease of using lowest cost options differ considerably; for example, opportunities to invest in the harvesting sector of low cost countries are not the same as investing in foreign processing or retailing.

21. Aquaculture has a bright future; with increasing populations, rising wealth and a general surge in consumer consciousness for healthy foods, the demand for fish is expected to increase. There are few economic restrictions on the aquaculture industry and where natural conditions are available, supplying rising consumer demand is big business, particularly for developing countries. A challenge for the future is the use of fish meal and oil in feed compounds, which raises two challenges: is it efficient to use scarce marine resources to grow fish (rather than to feed humans) and is there a technical possibility to move away from fish meal and oil in feed compounds?

22. It is in the fisheries processing sector where most signs of benefits captured from the globalisation process can be seen. As underlined earlier, the free movement of capital and technology has provided an opportunity for firms to profit from low labour cost countries - either as an outsourcing process or in the form of foreign direct investments. Coupled with low tariff barriers in most markets (compared to food produce from agricultural origin), fish and fish products, with minor exceptions, flow fairly freely across borders. The principal obstacles relate to public and private standards with respect to seafood quality and safety. Lately, some restrictions have been put in place for sustainability causes, for example, through CITES and certain regional fisheries management organizations that consider the use of trade measures as a way to safeguard resources. The latter also affects the trading, retailing and distribution elements of the value chain.

23. The process of globalisation poses new challenges for policy makers to ensure effective competition, environmental protection - including fisheries sustainability - and social adjustment. Although the fishing industry contributes marginally to overall GDP in most OECD countries, the sector plays an important role in certain coastal regions. In other parts of the world the sector contributes significantly to the dietary requirements of proteins which it may not be possible to meet in other ways. As the new realities of global competition will almost certainly lead to structural adjustment in such coastal areas, adjustment policies may be needed to ensure that social risks associated with globalisation – such as the risks to coastal communities - are well managed. Also in this area, the appropriate choice of fisheries

management model (e.g. community based management/ITQs) is a policy challenge requiring a more holistic approach.

24. **Chapter 3** of the Study is an empirical application of the model outlined in Chapter 2 and applied to the four major fish markets i.e. groundfish, salmon, shrimp and tuna. These four markets constitute the majority of international trade in fish and fish products. The characteristics of these four fisheries and their product markets are fairly dissimilar. Nevertheless, the analysis underscores that although globalisation is occurring in all four markets, the drivers have different impacts as a result of the unique elements of the market under consideration.

25. The *groundfish* market is made up of a number of species, the most important being Alaska pollack, cod, hake and haddock. The present stock situation is far from ideal, although some major Alaska pollack stocks and hake remain strong. Overfishing of cod and haddock has shifted markets away from these species towards Alaska Pollack and hakes. Due to overfishing of higher-value groundfish species, some countries have invested in aquaculture instead; with turbot and cod farming registering successes.

26. Continued overfishing and the extension of the 200 mile limit have had considerable influence on developments in the harvesting sector and new arrangements have developed e.g. through bilateral fisheries access agreements and joint ventures. In some fisheries, such arrangements are still prevalent and involve, in particular, a number of developing countries. Overfishing and a lack of appropriate management regimes have also played a large role as harvesting companies have moved from species to species to ensure work for their fleets. For example, while cod provided the basis for the production of sticks and portions in the 1970s, the principal groundfish species utilised today is Alaska pollack. A major challenge for policy makers is to ensure a sustainable and responsible harvest of groundfish. This has been difficult in many countries owing to inappropriate fisheries management models and competition among fishers.

27. There are major labour cost differences among groundfish processing countries. However, labour costs are just one element that must be taken into account. Yield (for example, filleting yields in some countries are not as high as in others), is an important factor in an industry where raw material costs are a major part of the overall cost structure of the final product.

28. Trade in groundfish raw material is subject to very low (if any) tariff impediments. Major markets generally import frozen or fresh groundfish, tariff-free. However, once processed (e.g. breaded products), trade becomes subject to tariffs ranging from 10 to 20 per cent, depending on the market. This may, to some extent, explains why major processing companies establish subsidiaries within certain tariff zones.

29. Due to the migrating or cross-border nature of some stocks of groundfish, regional fisheries management organizations have played a significant role in groundfish exploitation (e.g. NAFO and NEAFC). A major challenge for these organisations is to ensure that members comply with existing rules, and implement methods to reduce IUU fishing by non-members. Continued pressure from overfishing, the ease of re-flagging and increasing demand for fish and fish products will underscore challenges for regional fisheries management organisations in the future. Tougher and more direct measures e.g. through trade, are under consideration in some RFMOs.

30. An important driver for the future in the market for groundfish is the growing role of aquaculture. While farmed groundfish is still fairly limited, trials with cod have been very positive and could play an important role in the not too distant future. Other drivers of globalisation in the groundfish sector include environmental regulations such as waste and water use in processing.

31. The *salmon* sector is characterised by two major families of species: Atlantic and Pacific salmon, with the former heavily supplemented by farming. Catches of wild salmon has been stagnating and prospects are for lower future catches. Wild catches are mostly used for canning or sold frozen while farmed Atlantic salmon is primarily destined for the fresh and smoked market.

32. Trade in salmon has increased considerably as new aquaculture producers have entered the market. The foremost producer countries are Norway, followed by the United States, Chile, Canada, Japan and the United Kingdom. The advance of transport technology and lower prices for airfreight has had an important influence on trade. Likewise, the existence of few foreign direct investment restrictions on salmon farming has increased investment in this area.

33. The growth in aquaculture has been partly sustained by decreasing supply from the wild capture fisheries sector. In addition, the retailing sector demands products that are available year round and have stable supplies which clearly favor aquaculture productions systems as well. This eases planning for supermarkets and distributors. In the meantime, the link between aquaculture and wild fish through feed compounds is an important consideration that could put a break on further developments or, alternatively, increase production costs. Additional environmental restrictions such as discharges and the use of antibiotics on fish farms could limit overall future supplies and/or country of production.

34. Both wild capture and farmed *shrimp* production have progressed considerably. Today wild production has 60 per cent of the market while shrimp farming has 40 per cent. As with other farmed fish, this is likely to increase further in the future due to overexploitation and the need for stable and constant supplies.

35. Mangrove destruction, loss of wild stocks of fish and a reduced water table due to pumping of freshwater are some of the policy challenges that have arisen in the shrimp sector. With a ready market and good prices, such outcomes have often been neglected in a number of developing countries where a focus on foreign currency earnings is prevalent. In particular, in the developing world issues related to poor governance exist. These have environmental and social implications. A policy challenge for OECD countries may be to ensure appropriate transfer of technology and advice to contain the risks associated with aquaculture development.

36. Among developing countries, specialization in shrimp processing is ongoing, with low labour cost countries taking on simple processing (blocks of frozen shrimp). Trade in shrimp is subject to some tariff barriers, in particular in the EU where non-ACP countries (and least developed countries) face tariffs of 12 (frozen) to 20 (caned) per cent. The United States and Japanese tariff rates vary between 0 and 6 per cent depending of the level of processing.

37. Shrimp, in particular when cooked, is a highly perishable product and requires careful treatment. There are therefore stringent standards with regard to sanitary and phytosanitary conditions to ensure food safety throughout the value chain. Many developing countries have begun shrimp farming as a cash crop as fairly modest investments can have large paybacks over a short time frame. Nevertheless, due to the importance of large retailers in setting food safety standards and coupled with preferential tariff regimes for certain countries, further increases in the production of shrimp is likely to be concentrated on relatively few countries and in large, vertically integrated companies.

38. Due to the highly migratory nature of *tuna*, tuna fisheries pose particularly interesting challenges for policy makers with regard to globalisation. Many countries are involved as harvesters, bilateral access agreements are a common feature and tuna is widely traded as both processed and unprocessed. In addition, there are important challenges in managing tuna resources as tuna migrates through several EEZ and can be harvested on the high seas.

39. World catches of tuna have stagnated recently as most stocks seem to have reached their maximum sustainable yield level. By contrast, tuna farming (except for fattening) is in its infancy, although recent technical breakthroughs may bode well for this sector in the future. Both developing and developed countries are involved in tuna harvesting. However, bilateral access arrangements exist mostly for developed country fleets in order to provide access to developing country fishing zones. This is likely to change over time as developing countries acquire the necessary expertise and investments to undertake harvesting themselves. In this regard, developing country advantage lies in low labour costs, which is important in labour-intensive tuna harvesting and canning

40. Tuna is traded fresh, frozen and canned. Canning originally took place in developed countries. Today, this aspect of labour intensive processing has moved to the developing world. Frozen tuna trade is mainly for further processing (mostly canning) or for fresh consumption. While world trade in fresh tuna is limited in quantitative terms, it is a high-value trade where the principal importer is Japan.

41. Among OECD countries, import tariffs for fresh/frozen tuna are very low. For canned tuna most developing countries have preferential tariff access to the major import markets. The major exceptions include non-ACP country exports to the EU, where a 24 per cent tariff applies, and export from non-Andean Community countries to the US, which applies tariffs of 6 or 12.5 per cent (within or over annual quota) if in brine and 35 per cent if in oil. These tariff structures are an important element for companies in their choice of location of processing.

42. Driving the future of the tuna industry are cost considerations; these include access fees and labour costs in harvesting, labour costs in processing, and tariff structures. Another important consideration is the role of international governance frameworks for high seas tuna fisheries. A number of regional fisheries management organizations are involved in ensuring the sustainable use of tuna resources (e.g. CCSBT, ICCAT, IATTC). The major challenge for these organizations is to deal with IUU fishing; the use of trade measures against nations not fishing in accordance with the rules is increasingly under consideration.

43. **Chapter 4** of the study examines government responses to the opportunities and challenges that the globalisation process brings. Governments have the responsibility to ensure that natural resources are managed in a sustainable way (WSSD). However, while there is little doubt about the overall political commitment to sustainable fisheries, it is equally important for governments to ensure that economic growth is not curtailed.

44. The opportunities that globalisation has given rise to are well documented; faster growth, more jobs and greater wealth. Meanwhile, the pursuit of economic growth should not be to the detriment of sustainable resources. Hence, governments need to develop and implement policies that can safeguard against the potential negative impact of globaliastion on fisheries sustainability.

45. International and domestic policy frameworks have been implemented to safeguard the sustainability of the fisheries sector. The key question is to understand if the policies in place are sufficient to accommodate the ever increasing pressures on the resource base, and if not, to identify what policy action is needed.

46. Chapter 4 outlines various policy frameworks that are in place. In addition to drawing from fisheries related frameworks (UNCLOS, Code of Conduct, etc.), it also reflects certain policy areas outside fisheries specific polices such as trade (e.g. use of trade measures), capital investment (e.g. the particular challenge of fixed and mobile capital i.e. vessels), and labour policy (what structural adjustment policies are in place). This chapter outlines these policy areas before analysing whether current frameworks are

sufficient to provide an enabling environment that maximizes the benefits and minimizes the risks of globalisation.

47. **Chapter 5** of the study will summarize the key policy conclusions followed by recommendations for fisheries policy makers in order to ensure appropriate policy responses to the challenges and opportunities of globalisation in the fishing sector.