

## SCOPE FOR MARKET LIBERALISATION IN THE OECD FISHERIES SECTOR

### 1. Introduction

1. Over the past several decades, the fishing sector has experienced quite dramatic developments and changes. First, fisheries have gone through a long period of expansion; over the past 50 years, production has increased more than 6 times from around 19 million tons in 1950 to around 130 million tons today. During this period the relative importance of OECD countries' production decreased due to increased fishing in the developing world and because of over-fishing in OECD countries. Second, production from aquaculture has expanded considerably over the past two decades, a trend that is likely to continue. Third, trade has increased significantly and particularly the share supplied by developing countries and, in recent years, aquaculture. Finally, many of the fish species in international trade are characterised as fully or over exploited while a number of other stocks are depleted or recovering.

2. Previous rounds of multilateral trade negotiations have produced positive outcomes for the trade in fish products (see Table 1). In particular, a key outcome of the Uruguay Round was the reduction in the average across-the-board bound tariff rate applied to fish and fish products by developed countries from 6.1% to 4.5%, or by 26% with full implementation to take effect from 2000. Today the trade weighted applied tariff average of OECD countries is 3.1% while the simple tariff average amounts to 7.0%.

3. However, a number of market measures that can hinder trade remain in place. These include tariff and non-tariff measures, trade measures for environmental reasons, countervailing measures, price mechanisms and trade information systems. In addition, OECD governments expended USD 5 970 million in 1999 in financial transfers to the fisheries sector of which a significant portion was used for general services. A number of countries have sanitary, hygiene and technical import requirements in place where harmonisation in use and specifications may benefit trade. Finally, service and investment restrictions designed to specifically inhibit foreign participation in domestic fisheries are in place in most Member countries.

4. Thus, there remains ample room for further market liberalisation. The purpose of this paper is to highlight the scope for further liberalisation and to identify the linkages between market liberalisation and the effects on trade and on resources. The paper is based on recent work on fisheries market liberalisation undertaken by the OECD Committee for Fisheries.

**Table 1. Tariff Profiles for Fish, Developed Economies**  
**by Origin Pre and Post Uruguay Round**  
**USD Million**

Product category	Total import value	Percentage of imports <sup>1</sup>											
		Duty-free <sup>2</sup>		0.1-5%		5.1-10%		10.1-15%		15.1-35%		Over 35%	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fish & fish products													
All sources	18 527	21	24	42	44	18	21	12	8	7	3	0	0
Developing economies	10 621	19	20	45	45	13	20	14	10	9	5	0	0

1) Figures exclude tariff lines for which duties are not available in *ad valorem* terms since these lines can not be distributed by duty ranges.

2) Figures refer to tariff lines which were duty free prior to the Uruguay Round, including those that were fully bound, partially bound or unbound.  
*Source:* GATT "The Results of the Uruguay Round of Multilateral Trade Negotiations", Geneva November 1994

### Box

This Study, undertaken by the OECD's Committee for Fisheries, reviews the significant changes that the world fisheries sector has undergone over the past 50 years, from the growth in fishing technology and capacity, to the stagnation of capture fisheries production, to the surge in world trade in fisheries products. Secondly, the Study focuses on fisheries trade and market issues. While the Uruguay Round of WTO negotiations was successful in addressing a number of trade concerns key issues remain that need to be tackled.

The Study by the OECD's Committee for Fisheries was launched to gain a better understanding of the trade and resource impacts of various market measures applied in the fisheries sectors of OECD countries. The basis of the analysis in the Study is an inventory of trade and market measures including tariff and non-tariff measures, government financial transfers, sanitary and hygiene requirements, technical import requirements, access to ports/joint ventures/over the side sales and direct landings, and investments and services.

The Study explores the links between trade liberalisation and fisheries resources sustainability. The theoretical framework for the research suggests that the outcome of market liberalisation, and hence impacts on resource and trade, depends on whether or not the fish supplies respond to price changes flowing from market liberalisation. The ability of producers to increase supplies of fish to the world market depends on both the current level of fishing and the fisheries management regime in place. The Study offers the general conclusion that market liberalisation (including improving fisheries subsidies disciplines) is not likely to have a major impact on resources in countries that use fisheries management tools that impose an upper limit on the amount of fish that can be harvested. However, in countries where management is ineffective and the high seas, where open access may still be the norm, market liberalisation could exacerbate resource exploitation problems. Importantly, however, this may lead to lower fish supply in the long run. In the meantime, these linkages, in a setting of diverse fisheries management regimes, make it difficult to predict the trade outcome of market liberalisation.

Some key questions remain unanswered, while many new questions have emerged. The recently agreed Programme of Work (2003-2005) for the OECD's Committee for Fisheries responds to these needs. Future work includes more detailed analysis of government financial transfers, certain non-tariff barriers not sufficiently covered in the present Study and IUU fisheries issues.

## 2. Analytical Framework

5. The theoretical framework developed for the Committee offers the crucial insight that the direction and magnitude of trade changes, and the associated resource impacts, from policy changes, will be determined by the possibility of supply responses in the sector.<sup>1</sup> In turn, supply responses in fisheries are a function of the level of fishing and the fisheries management system in place in exporting and importing countries.

1. See "Effects of Liberalising Trade in Fish, Fishing Services and Investment in Fishing Vessels" and "Effects of Trade Liberalisation in Supply in Selected Fisheries Management Regimes", both by Professor R. Hannesson.

6. Market liberalising measures can be translated into changes in prices. A reduction in tariffs, a suspension of tariffs and tariff free quotas, the application of preferential arrangements and a relaxation of quota restrictions may lead to higher producer prices in exporting countries and lower prices in importing countries. Measures such as sanitary and hygiene regulations, technical import requirements and restricted access to ports and services translate into higher costs with effects similar to lower prices for producers in exporting countries. The analysis can then focus on the likely influence of policy changes on the supplies from the fish stocks resulting from changes in prices in exporting and importing countries.

7. The level of fishing in place at the time of policy changes will determine the potential extent of supply changes. An important characteristic of capture fisheries is that additional fishing effort in response to higher prices (in the case of exporting countries) will lead to an increase in supplies only until the level of fishing reaches the maximum sustainable yield (MSY). Once the MSY has been reached, the effects of additional effort being applied to the fishery in response to higher prices will depend on the management framework<sup>2</sup> in place. In summary, additional effort will lead to:

- A fall in supplies in the case of non-managed open access fisheries;
- No change in supplies when the catch is controlled i.e. through total allowable catches or other output managed fishery or fishing fleet activity is controlled; or
- Slightly increasing supply in the case of effectively managed fisheries.

8. In the case of aquaculture, supplies can increase although access to suitable sites, administrative regulations and the availability of feed may limit the potential for supply responses.

9. Pure open access fisheries are now relatively rare in OECD countries as most fisheries are controlled with either input controls, output controls, technical measures or a combination of all three. Indeed, most OECD fisheries fall between the catch control and economically effective management regimes, with the management of most fisheries being closer to the catch control end of the spectrum. The analysis also assumes that there is full and effective monitoring and enforcement of fisheries management regulations. To the extent that this is not the case, the results of the analysis may need to be moderated. For example, it has been suggested that where fisheries are managed predominantly by catch control (for example, through a total allowable catch (TAC)), higher prices of fish may lead to increased political pressure from industry to increase the TAC. This is less likely to occur under effective management (for example, where individual transferable quotas, community quotas or individual vessel quotas are used), as industry participants have an economic stake in the health of fish stocks. In such regimes, fishers are likely to exert pressure on the management authority for an allowed catch that would maximise the value of their assets over time. It should also be noted that higher prices of fish, resulting for example from market liberalisation, in the short term may, under certain conditions, act as an incentive for fishers to circumvent both biological and economic regulatory constraints.

10. It is important to underline that market liberalisation may also have demand side effects. As price increases in the exporting country (and decreases in the importing country) the exporter is in a position to export a quantity that domestic consumers are not willing to pay for any longer (and therefore are no longer willing to consume). The opposite is true for the importing country. The amount of trade created in this way will be determined by the demand elasticity as, in catch control and effective management regimes, supplies are considered to be constant due to the existence of a catch limit.

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<sup>2</sup> The fisheries management regimes used in the theoretical construct have been taken from Professor Hannesson's work for the study. The words used to label each of these stylised management regimes do not entail a value judgement but are rather descriptive terms to encapsulate the way they function.

11. It is apparent that aquaculture, shared stocks and high seas fisheries, fisheries under bilateral agreements, under-exploited and multi-species fisheries are the areas from which supply responses may be forthcoming, at least in principle. As a result, these situations have particular implications for both trade and resource sustainability as a result of market liberalisation measures.

12. Finally, while the theoretical construct developed for the study has been helpful in advancing the analysis with regard to the effects of market liberalisation on both trade and resources, it remains that the real world is more complicated. In particular, the analysis is based on the assumption of a number of stylised fisheries management regimes which assume that regulations are strictly adhered to and that enforcement and surveillance ensures complete compliance, a situation that seldom occurs in the real world. Nevertheless, it provides a useful framework around which discussions on the linkages between resource sustainability and market liberalisation can be structured.

### **3. Effects and Scope of Market Liberalisation**

#### *1) Tariffs and tariff measures*

13. Within the context of the Integrated Data Base (IDB) of the WTO, WTO members are obliged to notify the applied (or actual) tariff rates in place; this information has been publicly available since 2002. While some OECD countries have set up web sites that provide up to date tariff information, the lack of transparency on applied tariff rates, combined with the complexity of fisheries tariff schedules of some countries, makes detailed tariff analysis and assessment difficult.

14. Tariffs collected on fish and fish products are in the order of USD 1 billion per annum for the OECD countries as a whole. Due to the extensive use of tariff suspension, preferential arrangements, etc., the actual applied tariff rates are well below bound MFN tariff rates (which are the ones that are negotiated in MTN tariff negotiations rounds)

15. Tariff profiles vary widely among OECD countries, reflecting the particular fishing sector structure and the relative importance of the harvesting and processing sectors. Furthermore, the trade weighted applied tariff average for “raw/unprocessed” fish is much lower at 2.5% than for processed products at 6.3%. Thus tariff escalation is present across OECD countries. Most OECD countries offer preferential access to products from developing countries. In addition, other preferential trading arrangements among OECD countries exist including many bilateral and regional trading arrangements. The number of tariff peaks and tariff bindings remains an issue in some countries.

16. The effects of liberalising trade in unprocessed fish (by lowering tariff levels) may be followed by a reduction of prices for similar fish species in the importing country. Consequently, unless fishers can increase their harvest in the importing country, their average incomes may fall while consumers will benefit from lower prices. Additional quantities from world or domestic fisheries are dependent on the availability of under utilised resources.

17. The relatively high tariffs on processed products (HS groups 1604 and 1605) in major import markets means that exporters are more likely to sell raw material for further processing rather than exporting processed products. In such cases tariff reductions on processed products can have consequences for the location of processing. Finally, it should be noted that general tariff reductions could undermine preferential access and tariff arrangements and ultimately make them valueless for the beneficiary countries.

2) *Non-tariff measures, including quantitative restrictions, trade measures for environmental reasons, countervailing, measures, price mechanisms, licensing, trade information systems*

18. Only one OECD country applies *quantitative import restrictions* in the form of import quotas. Assuming that the quotas are fully used the relaxation of these will lead to lower prices in the importing country and to higher prices for exporters.

19. Several regional fisheries management organisations have adopted rules for the implementation, by member states, of *trade measures to meet environmental or conservation objectives*. In certain cases, if countries which are not members of these organisations are found to be fishing (and trading) in contravention of the rules of the organisation, they may have trade measures imposed on them. In practice, however, only one organisation has required its Member countries to take measures against the imports of swordfish, bigeye and bluefin tuna from a number of non-member countries. If markets for the products from illegal, unreported or unregulated (IUU) fishing can be eliminated or at least limited, such measures may prove beneficial for conservation purposes, as it would render IUU fishing less profitable. Some countries also have provisions for regulating or prohibiting imports of certain species fished under certain conditions. Relaxing such measures can have similar effects as lifting quantitative import restrictions (i.e. higher prices in exporting countries and lower in importing countries).

20. By the time of the completion of the Study two countries had a *countervailing and antidumping duty* in place for salmon. Due to the structure of the international salmon market it is difficult to predict the influence on prices received by exporters as well as the prices paid by importers and consumers if the countervailing or antidumping duty is reduced or eliminated.

21. Three OECD countries and the European Union run *price mechanism systems*, the aims of which are to stabilise market prices. The overall quantity of fish involved is fairly limited. Reducing the minimum prices might increase demand and external suppliers might export more to the market whereas domestic fishers may receive lower prices for their products. However, it should be mentioned that some of the systems also have an “environmental” aspect as they discourage the harvest, through price discrimination, of for example undersized fish, and act as a complement to technical conservation measures. As such, their discontinuation could negatively influence resources and stocks. In countries with catch control or effectively managed fisheries a discontinuation of systems will not give rise to an increase in the quantities traded.

22. Over the last decade, the number of *trade information systems* has increased as a partial response to the growing concern about IUU and “flags of convenience” (FOC) fishing activities. These trade information systems ensure that products from legal fisheries are properly tracked and monitored. These systems are needed if trade measures are to be placed against products from countries fishing in violation of conservation rules. Such systems can also be used to better inform consumers about the products they purchase. Such systems impose costs on the harvester, as well as to some extent on the importer, corresponding to the costs of having product’s paper trail followed from capture to consumption. The increased costs of using trade information systems may be translated into lower returns on fishing for producers in exporting countries. Whether this gives rise to changes in production and trade is a question of the fisheries management system in place.

23. Two OECD countries have an *export measure* in place. Both cases only involve limited quantities of fish. The two cases are both in place for monitoring purposes and their discontinuation may cause adverse effects in terms of quota management.

### 3) Government financial transfers

24. While it is difficult to assess the nature and overall size of government financial transfers, transfers to the fisheries harvesting sector are estimated to have amounted to USD 5 970 million in 1999<sup>3</sup>. This was equal to 20% of the (recorded) landed value of the catch. Although the data may be difficult to interpret, figures covering the 1996-1999 period suggest that there may be a general downward trend in total amount of transfers to fisheries.

**Table 2. Government financial transfers**

**USD Million**

	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
TOTAL OECD transfers, of which:	6 799	6 390	5 481	5 970
Direct payments	838	725	758	865
Cost reducing transfers	789	759	772	799
General services	5 171 (76% of total)	4 906 (77%)	3 914 (71%)	4 263 (71%)
Total landed value	37 646	37 820	29 283	29 785
Total transfers as a percentage of landed value	18%	17%	18%	20%

Note: Excludes market price support.

Source: Review of Fisheries (several issues) and Transition to Responsible Fisheries (OECD, 2000)

25. Of the total amount of transfers in 1999, USD 4 263 million (71%) was used for general services<sup>4</sup>, USD 799 million (13.4%) for cost reducing transfers and USD 865 million (14.4%) for direct payment to harvesters. A significant proportion of payments for general services is spent on surveillance, enforcement and research and port infrastructure. The relative share of each type of expenditure has remained relatively stable over the years 1996 to 1999.

26. There are difficulties with respect to assessing accurately the size of government financial transfers. This is due to various factors but relates in particular to the level of government that provides transfers (national, regional or local), that some of the transfers are not posted as expenditure (“un-budgeted” transfers such as tax concessions) or because the amounts of money involved are relatively small. The WTO<sup>5</sup> requires member countries to notify all specific subsidies under WTO provisions to the fisheries sector at all levels of government. However, it appears that notifications do not cover all subsidies

3. It should be observed that there are some data gaps. Data sources are the *Review of Fisheries* and *Transition to Responsible Fisheries*.

4. General services comprise a range of elements, including management, enforcement, surveillance, port infrastructure, regional development grants and expenditure to promote international fisheries co-operation. A listing of examples is provided in Appendix 5 to the Preliminary Assessment chapter.

5. Article 25 of the Subsidies and Countervailing Measures (SCM) Agreement requires that “Members notify all specific subsidies (at all levels of government and covering all goods sectors, including agriculture) to the SCM Committee”.

programs as the largest part of the notifications have been made by a limited number of WTO Members that notify fisheries subsidies on a regular basis.

27. Support to the processing sector is mainly due to tariffs on processed products i.e. market price support that is not financed by the governments but by higher prices for consumers; this is estimated to be about USD 400 million per year (2000 figure) for the OECD as a whole<sup>6</sup>.

28. Government financial transfers to the harvesting industries of OECD countries represent a significant policy intervention. In principle, the reduction or removal of GFTs may not have impacts on resources or trade provided there are management regimes in place which effectively control the amount of fish harvested.

29. However, there are a number of cases where supply responses could be forthcoming from the provision of GFTs to the sector. Several OECD countries buy access rights using public funds to ensure fishing entitlements for their fleets in other countries; these costs are often not recovered from the fishing industry. A part of the GFTs included in these arrangements cover aspects such as enforcement support, research and control facilities. The inherent value of the “resource rent”<sup>7</sup> is not fully charged to the fleet that benefits from such arrangements and an element of transfer could thus be present as fishing fleets otherwise may not be interested in the venture. The elimination of such payments, while case specific, could have a positive effect on the resources in the host country provided that an effective management regime is in place. Charging the full cost of the fishing rights to users can also increase the efficiency of fishing operations.

30. GFTs provided to the aquaculture industry may also give rise to supply responses. However more work is needed to provide transparency on this sector; this concerns in particular stocktaking of subsidy types and levels.

31. There may be other effects of GFTs worth noting. In the absence of effective fleet capacity controls, transfers may attract more resources than necessary to the fishery in the form of capital (vessels and equipment) and/or labour, i.e. excess capacity. As a result, profitability and average incomes in the fisheries sector are likely to be lower than otherwise would be the case as the same amount of fish is exploited at higher costs. Excess capacity may also be exported and may have spill-over effects on other countries (particularly non-OECD countries) and on the high seas. In addition, the provision of GFTs may embed expectations thereby not facilitating capacity contraction and concurrently increase pressure for higher TACs.

#### *4) Sanitary and hygiene requirements*

32. All OECD countries impose a series of sanitary and hygiene requirements for fish. While few requirements are attached to direct landings, the number and severity of requirements increases with processing stages. Most OECD countries apply Hazard Analysis and Critical Control Point (HACCP) systems and the enforcement of hygiene and sanitary requirements takes place through point inspection,

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6. Total tariff revenue collected for the OECD has been calculated as imports multiplied by the trade weighted tariff average; for total imports of fish and fish products this results in an estimate of USD 1 billion for the year 2000. Imports related to processed products (tariff position 16.04 and 16.05) amounts to roughly USD 6 billion a year with a trade weighted tariff average of 6.3% which produces roughly USD 400 million.

7. In the context of natural resource management, the term is commonly used to refer to the difference between the market value of the resource and the costs of attaining a socially efficient level of harvest, including a normal level of profit.

through dedicated/licensed importer or through systems of approval of establishments. In this respect, the purpose of the WTO SPS Agreement and the notification requirement is to ensure a higher degree of transparency.

33. Sanitary and hygiene regulations translate into higher costs with effects similar to a lower price for producers in the exporting countries. If the application of such measures is unclear or not sufficiently transparent, costs may be imposed on exporters. Clarifications in these rules and increased transparency in their application will therefore increase predictability and transparency for exporters. Whether this subsequently will influence the resources and level of trade will depend on the level of resource exploitation and fisheries management regime.

34. In general, importers and exporters comply with health and sanitary regulations to protect consumers since, as well as facilitating trade, such regulations are aimed at enhancing consumer confidence. In the meantime, it should be observed that in many countries, sanitary and hygiene regulations and inspections are often a public domain and a general service not provided on full cost recovery basis.

#### *5) Technical import requirements*

35. A number of OECD countries have technical import requirements in place. These concern restrictions on the imports of fish of certain sizes (length of fish, carapace length) and of fish/crustaceans that are egg bearing. Rules are also in place regarding presentation of the fish when landed directly — e.g. whether the fish are gutted and bled. The WTO requires notification of national technical import requirements and regulations with a view to ensure a higher degree of transparency.

36. The use of such requirements translates into higher costs with effects similar to a lower price for producers. If they are applied only to exporters or are more severe for producers in exporting countries, their removal will benefit exporters. Moreover, technical requirements could have positive effects on the resource in both the exporting and importing country as they usually are in place as a technical measure with a resource conservation objective.

37. Some countries require that fish are labelled with the origin of catch, whether the fish is from wild fisheries or aquaculture production and the generic marketing name. The use of labelling schemes adds to the costs of production. If applied to both domestic and imported fish, they are unlikely to affect trade. If consumers are responding to the use of such schemes, their use could have a beneficial effect on the resources.

#### *6) Access to ports/joint ventures/over the side sales and direct landings*

38. Most OECD countries have some form of restriction in place on direct landings or over the side sales within their respective Exclusive Economic Zone (EEZ) in part to ensure that conservation efforts are not circumvented. There are also OECD countries that restrict, or at least make it subject to authorisation, the access of fishing vessels to their ports in order to seek, for example, supplies, ship repair and crew exchanges.

39. Restricting access and landings of foreign vessels translate into higher costs and lower prices for producers that wish to have access to ports, over the side sales and direct landings. Concurrently, restrictions on foreign direct landings will deprive the domestic fish processing industry and market of imported fish. Such restrictions maintain higher prices on the domestic market. The domestic industry, and in particular the harvesting sector, is assisted by such restrictions and the assistance can be captured as market price support element.

## *7) Investments and services*

40. Most OECD countries restrict foreign direct investment in the fish-harvesting sector. Restrictions are of two broad types. One is related to foreign investment rules and most countries have lodged reservations for the fish-harvesting sector with the OECD's Code of Liberalisation of Capital Movements. Another type of regulation concerns domestic rules regarding participation in the fisheries; this includes regulations regarding duration of residence, educational requirements and language skills which, taken together, often render foreign participation difficult. Foreign investment participation in fish processing is largely unrestricted. It has not been possible to calculate the amount of foreign direct investment in fisheries as the national statistical coverage does not allow for details by sectors.

41. Some OECD countries restrict the use of foreign fishing crafts by domestic harvesters and that the use of foreign fishing services is subject to authorisation by competent authorities. The effects on trade and resource sustainability of allowing foreign investment in the fishing industry will depend on the fisheries management regime. In the OECD countries where catch control regimes often are in place, the availability of foreign capital may replace domestic capital but because of the catch controls there will be no effect on resources and trade. An interesting case is if the fishery is characterised by efficient management regimes with the possibility for foreign ownership of quotas. In such cases a more profitable (lower cost) foreign fleet could replace the domestic fleet.

42. The close relationship between free flows of investments and capacity should be kept in mind; the opening up of foreign investments may be particularly valuable once current over-capacity and IUU fishing problems have been solved. In this regard, the Spanish case study submitted to this study suggests that the introduction of tradable fishing rights at international level, as a complement to globalisation of international trade, may help foster economic activities in fisheries when there is an effective control of the effort and catch.

43. Insofar as fishing services are concerned, very little information is available. The use of fishing services is a means to better use capacity and profit from fleets with comparative advantages in fishing. By the same token domestic fishers may be displaced from the industry. Effects on resources and trade are dependent on the fisheries management regime in place.

## **4. Conclusions and Further Work**

44. The work of the Committee for Fisheries has provided a framework that can help policy makers understand the likely trade and resource effects of market liberalisation. The application of the framework ensures that the effects are systematically taken into account when considering policy changes and interventions, at the national and international levels. Previous rounds of multilateral trade negotiations have produced positive outcomes for the trade in fish products and in particular as regards tariff reductions. However, a key conclusion of the study is that there is scope for further market liberalisation in the fishery sector. However, the full benefits of further market liberalisation will be reaped only if appropriate fisheries management is in place. It is therefore important that policy makers address both trade and fisheries management policy areas in a coherent and comprehensive manner. To maximise welfare gains policies should target market liberalisation and improvements in fisheries management concurrently.

45. In principle, general trade liberalisation brings gains to both importers and exporters, but in particular to exporters who have relatively low production costs and thus a comparative advantage in fish production; these are the classical welfare gains in trade liberalisation. However, in capture fisheries, if the management of the fishery is ineffective or non-existent, the result may be the opposite; an exporter with a comparative advantage in fishing may not necessarily gain but may be worse off from increased trade in fish as pressure on the resources will increase. On the other hand, with ineffective or non-existent fisheries

management, it is the fish importing country that stands to gain most from trade. In addition to the classical gains from trade liberalisation (more fish at a lower price for consumers) the importing country's domestic fishing industry may waste fewer resources tied up in fishing fleets and gear. However, in these cases, what should be reconsidered is not the economic effects of market liberalisation, but the appropriateness of the management system in place.

46. A number of situations in which supply changes, and hence trade and resource effects may result from market liberalisation have been identified:

- aquaculture,
- shared stocks and high seas fisheries (that are not subject to management),
- fisheries under bilateral access agreements,
- under-exploited fisheries and
- multi-species fisheries.

Policy makers should pay particular attention to these cases, as they are situations where market liberalisation is most likely to elicit a supply response.

47. There is an increasing use of trade measures in support of fisheries management and conservation purposes, at both national and/or international level. This suggests that more work is needed on understanding the links between such measures and the regulatory frameworks in the fields of trade and management of fishery resources.

48. More work is also needed on the role and effects of liberalising investments and services in the fisheries sector. There are several international aspects, including IUU/FOC fishing activities, which have a direct bearing on rules of investments. The costs imposed on the international fishing community of such activities need to be assessed. For fishing services the Study has been inconclusive, as little evidence has been provided.

49. Many of the market policy measures have their origins in a variety of international treaties, organisations and national legislation. Reaping the full benefits of liberalisation may require that all the institutions with legislative responsibilities be engaged and empowered to seek comprehensive solutions in a co-operative manner. The implication of this may warrant further investigation.