

An Examination of Trade and Environmental Policy Responses to the Challenge of Fisheries Subsidies

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■ Introduction

The crisis in world fisheries is one of the major challenges facing the international community as it moves into the twenty-first century. In the past few decades, the world fishing fleets have outstripped the increase in harvest levels, enabling the overall fishing effort to continue unabated. And governments continue to maintain mutually conflicting policy objectives that have had an impact on the environment and trade, thereby undermining the achievement of sustainable development. Over-fishing is spawned by excess capacity and the overall lack of adequate and consistent fisheries management. Subsidies and other revenue transfers encourage excess capacity, while fishing seasons and quotas do little to reduce the overall pressures on fisheries resources.

Fish stocks are an essential part of global biodiversity and the oceans' ecosystems. They also represent an important source of nutrition to the citizens of many developing countries, who depend more on fish than any other animal protein for their diet. Fish trade represents a significant source of foreign currency earnings for many developing countries – a dependency which is set to rise steadily in the coming decades. Fisheries industries provide employment and income to an estimated 30 million individuals around the world (28 million in developing countries). They are essential to the sustainable development of coastal fishing communities around the world.

It appears that conventional management techniques alone are no longer appropriate remedies for the exploitation practices in most traditional fisheries. Therefore a dual approach to fisheries management which combines both economic and conservation policies needs to be

adopted at the national, regional and international levels. Such policies must incorporate a precautionary approach to fisheries management in order for fishing effort to be rationalized to a more sustainable level.

This article examines the response by the international community to the relationship between the provision of subsidies, excess capacity and the crisis in fisheries. It suggests ways to co-ordinate the responses and support regional and national efforts to sustainably manage fisheries resources.

■ Worldwide Fisheries Overview

About 70% of the world's stocks are now regarded as fully exploited, overexploited, depleted or recovering.¹ World fish production has therefore levelled out in recent years, averaging 100 million tonnes. Capture fisheries accounts for the bulk of this figure, but the growth of aquaculture has begun to offset a decline in marine and inland capture fisheries harvests.² Ten countries account for about 70% of worldwide capture fisheries. Low-income food-deficit countries account for 35% of capture fisheries production, but their production in this sector is increasing. The Food and Agriculture Organization (FAO), the UN's technical agency with responsibilities for various fisheries matters on the global scale, estimates the potential harvest from capture fisheries is between 85 and 90 million tonnes with current fishing regimes, and 100 to 105 million tonnes if management systems for capture fisheries are improved.³

The steady rise in international trade in fisheries products is due to the increased fishing by coastal countries in their Exclusive Economic Zones (EEZs). Long distance

fishing fleets have increased their global activities over several decades since the 1960s. Targeted species have shifted from Atlantic cod in the 1950s and 1960s, to Cape hake and Alaskan pollock in the 1970s and Chilean jack mackerel and cephalopods in the 1980s.

As landings have increased, so has the construction of fishing ships. Between 1970 and 1989, total Gross Registered Tonnage (GRT) increased by 87%. In 1992, the world's total fishing fleet totalled 26 million GRT (24 m and over, and 100 GRT or larger) and 3.5 million vessels.⁴ Between 1992 and 1997, tonnage on the register of flag states increased by 720,000 tonnes, or 3%.⁵ At the same time, the world's fleet increased 22% in terms of potential fishing capacity through new additions and refits.⁶ Therefore, rather than decreasing, world fishing capacity potential continues to rise.⁷

The FAO warns that nations need to constrain production in order to facilitate the rehabilitation of stocks; rehabilitation may take more than ten years for some long-lived demersal species and some tunas. Additional action is required to eliminate over-fishing, rebuild stocks, minimize waste, develop sustainable aquaculture, rehabilitate habitats, and develop new and alternative species of fish.

The Tragedy of the Commons

The problem of over-fishing essentially stems from the fact that access to most marine fishery resources is 'open'. No individual producer has the right to exclude other producers from harvesting or otherwise using any part of the resource. From an individual producer's perspective, leaving fish to grow and reproduce is done at the risk of losing the fish to other producers.

The resulting 'race for the commons' amongst producers drives the stock down below the optimum level, causes fishing seasons to be shorter than optimal for maximum economic performance, and induces producers to make excessive investments in their vessels and gear. Large quantities of fish are landed during short periods, requiring the build-up of large processing, and storage and distribution facilities to handle the periodic peak loads. Wholesalers, retailers and consumers find supplies of specific fish are abundant for short periods and scarce for long periods; or the product is processed for long shelf life, generally reducing the quality of the product and price on the market.

The serial collapse of major fish stocks and the scarcity of high-value fish species have focused the minds of fisheries conservation experts and governments alike on the need for a different approach to the problem of over-fishing. Such a two pronged approach to the problem may include:

- (a) the enforcement of tough quotas and allowable catch limits, and
- (b) the reduction and elimination of 'perverse subsidies' which encourage depletion of the resource.

The enforcement of quotas and catch limits must be done at the regional or national level. However, the inter-

national trade community can play a significant role in subsidy reduction. Because the multilateral trading system seeks welfare maximization and the efficient allocation of resources, it can step in where it perceives abnormal market disequilibrium. When such disequilibrium spawns negative environmental consequences, there is a double dividend from action by the trading system: the objectives of trade liberalization and environmental protection are served simultaneously.

Some National Fisheries Management Techniques

The main management techniques in the conservation of fisheries resources can be categorized as biological and economic fisheries management. Biological fisheries management practices include, *inter alia*, mesh size requirements, total allowable catches, area closures and nursery ground protection. Some of these techniques have had varying levels of success in conserving and enhancing fish stocks. But such techniques do not remove the common property aspect of fisheries, which is at the root of the fisheries problem. They fail to generate any economic rents from fisheries; therefore they do not serve an economic purpose, even though they may preserve some fish stocks.

Economic fisheries management techniques usually take the form of direct economic restrictions, such as limitations on days at sea, fishing time, vessel engine size, or vessel hold capacity. However, they also do not alter the common property nature of fisheries. Indeed these techniques usually result in the fishermen trying to maximize their returns from the particular fishery by expanding their fishing effort. So for instance if the number of days at sea are limited, fishermen will invest in larger and more powerful vessels. In other words, there is always an attempt to bypass the restrictions placed on them.⁸

Individual Transferable Quotas

Experience has shown that the methods with the best chances of success are indirect economic ones, such as corrective taxes or property rights based instruments, such as individual transferable quotas (ITQs).⁹ ITQs have been employed in some fisheries with some degrees of success, and the concept is spreading rapidly worldwide.¹⁰ ITQs, which are not unlike exclusive user rights in a forest, are private property rights in total harvesting quantity. The ITQ gives an individual fisherman or fishing unit the right to catch a specified quantity and species of fish in a specific location during a specific period of time. Each fisher's use of fish stock is restricted by his quota holding, so the common property nature of the fishery is greatly reduced. Instead of competing for catch from the limited resources, the fisher concentrates on minimizing the cost of harvesting the catch quota and maximizing its value by improving its quality. Barring overcrowding in the fishing grounds, the fishery should eventually reach full efficiency.¹¹

The experiences with ITQs so far have been positive. Fishing effort usually decreases and fishing fleets have

contracted, allowing economic rents to generally increase.¹² But ITQs are not ideal property rights for fisheries. They are only harvesting rights. They are not property rights in the fish stocks themselves, or in the fish habitats. Therefore they do not solve all the economic organization problems of fisheries.¹³ In the first place, there is the problem of the basis on which to allocate the quotas. Then there is often concern that quotas will lead to greater concentration of ownership of quota shares by a few holders. This concentration becomes problematic if it results in monopoly or monopsony power of quota holders.¹⁴ In such case, small fishermen may be eliminated in favour of corporate fishers. The evidence is inconclusive in this respect.¹⁵ ITQs also do not solve the problem of overcrowding on the fishing grounds, fish stock enhancement, or ocean habitat conservation. There is an added incentive to keep the most valuable fish to count against the quota and to discard less valuable fish.

ITQs are also not always suitable for all fisheries. The quota restrictions need to be strictly enforced. And if there are numerous landing sites, high unit values of catch and high local consumption, enforcement can be problematic. ITQs have tended to be more successful in single species fisheries where the regulated species can be effectively targeted, and there is no significant by-catch problem for other fisheries.¹⁶ For example, in the Australian Southern Bluefin Tuna fishery, the number of vessels declined by 70% within two years (although some of the displaced vessels went to other fisheries, contributing to over-capitalization in those fisheries). Costs decreased by 25%, resource rent was generated, and the industry became more profitable. Fishing techniques also improved – larger and more valuable tuna were targeted. But enforcement costs rose and discards increased. Quota management has so far failed to cause the recovery of depleted stocks.¹⁷

In most cases, an ITQ fisheries management system implies a radical restructuring of traditional fishing activities. This would involve socio-economic adjustments that may be resisted and therefore difficult to accomplish.¹⁸

The limitations of management techniques at the national level mean that the regional and international fisheries management techniques are also crucial in ensuring that global fisheries resources are developed sustainably. The success of global fisheries management means that such efforts need to be better co-ordinated. Yet the international community has differing responses depending on its various guises. At the World Trade Organization (WTO), nations are reluctant to reduce and eliminate damaging subsidies. Yet in the FAO and under the Convention on Biological Diversity (CBD), declarations are made about the need to reduce subsidies in line with an ecosystem approach to the management of fisheries.

International Fisheries Management Regimes

The connection between subsidies and over-fishing has been readily acknowledged in various international fora. In his 1996 report to the UN Commission on Sustainable Development (CSD), the Secretary-General urged governments to reduce subsidies to the fishing industry and abolish incentives that lead to over-fishing.¹⁹ In 1997, the CSD called on governments to consider 'the positive and negative impacts of subsidies on the conservation and management of fisheries through national, regional and appropriate international organizations and, based on these analyses, to consider appropriate action'.²⁰

The discussion below of the international instruments is meant to contrast with the policies on support to the fisheries industry, which the main fishing nations pursue. The provision of subsidies that encourage over-capacity and over-fishing are not only counterproductive to fisheries management systems, but they appear to deliberately undermine the international obligations the governments have assumed. The UN instruments provide a framework for sustainable management of fisheries resources, central to which is the idea of an integrated approach. However, it appears that governments continue to divide up fisheries on a sectoral basis, separating the notion of sustainable management from policies on support given to development and maintenance of the fishing industry. This compartmentalized approach to fisheries resource planning makes continuation of over-capacity and its resultant consequences possible.

A number of international agreements and instruments contain provisions on the conservation and sustainable use or management of fisheries. Increasingly there is recognition under these instruments that over-capitalization and excess capacity of fishing fleets are problematic. There is little by way of specific binding obligations to reduce excess capacity by reducing subsidies. But some of the provisions may be useful to demonstrate a trend in the level of awareness of the relationship between excess capacity and the provision of subsidies.

The Convention on Biological Diversity

The objectives of the Convention on Biological Diversity (CBD) are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable utilization of benefits arising out of the use of genetic resources. In the case of components of biodiversity, the CBD applies in areas within the national jurisdiction of Parties. In relation to processes and activities that are carried out under the jurisdiction or control of Parties, the CBD applies both within areas of national jurisdiction and beyond the limits of national jurisdiction, regardless of where the effects of these processes occur.

The provisions of the CBD do not specifically address fisheries, issues of over-capitalization or excess capacity in fishing fleets. But, the CBD does contain a number of

provisions applicable to fisheries, which have been the subject of some discussion within the Conference of the Parties (COP) to the CBD. The COP has generally endorsed an ecosystem approach to the implementation of the CBD.

A number of the CBD provisions most relevant to the conservation and sustainable use of fishery resources are qualified by phrases such as 'as far as possible and as appropriate'.²¹

Article 11 of the CBD requires Parties to the Convention, 'as far as possible and as appropriate', to adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity. Within this context the COP has also considered the question of 'perverse incentives'. In Decision III/18, the COP encouraged Parties to review their existing legislation and economic policies, and to identify and promote incentives for the conservation and sustainable use of components of biological diversity. The decision stressed the importance of taking appropriate action on incentives that threaten biological diversity.

At its fourth meeting, in 1998, the COP encouraged Parties, governments and relevant organizations to promote the design and implementation of appropriate incentive measures, taking fully into account the ecosystem approach and the various conditions of the Parties, as well as the precautionary approach, and to integrate biodiversity concerns in sectoral policies, instruments and projects. It also encouraged Parties, governments and relevant organizations to identify 'perverse incentives' and consider the removal or mitigation of their negative effects on biodiversity in order to encourage positive, rather than negative, effects on the conservation and sustainable use of biological diversity.²² Case studies on incentive measures are also called for within the COP III and COP IV Decisions.

The Parties to the CBD have recognized marine and coastal biodiversity as a priority, addressing the issues at the first meeting of the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) in 1995, and at the second meeting of the COP in 1995.

The recommendations of the first meeting of SBSTTA, upon which Decision II/10 was based, made explicit reference to fish subsidies. In paragraph 14(a), recommendation I/8 of SBSTTA, advocated the COP 'to identify constraints, including economic, for conversion of fishing gear and phase-out of fishing over-capacity, and the possibility of reducing subsidies for fisheries'.²³

SBSTTA recommendation I/8 also called on the COP to:

recommend to the CSD the need for the CSD to evaluate the worldwide over-capitalization of fishing fleets and its impact on marine and coastal biodiversity, and to review the role of national government subsidies in contributing to the over-capitalization. (para. 7, recommendation I/8)

This recommendation was **not**, however, explicitly supported by the COP in its Decision II/10, which expressed

explicit support for paragraphs 10 to 19 of the SBSTTA recommendation.

At its second meeting, the COP adopted Decision II/10 on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity (known as the 'Jakarta Mandate'). The Jakarta Ministerial Statement on the Implementation of the Convention on Biological Diversity, adopted at the end of COP II, reaffirmed the critical need for the COP to address the conservation and sustainable use of marine and coastal biodiversity, and urged Parties to initiate immediate action to implement the decisions adopted on this issue.

Decision II/10 also took note of, *inter alia*, the FAO Code of Conduct on Responsible Fisheries (see discussion below), and supported its implementation, including by Parties to the CBD, in ways that are consistent with and conform to the objectives of the CBD.

While the COP supported the recommendation of the 1995 SBSTTA statement on the reduction of fisheries subsidies, it was controversial. Some Parties were concerned that the recommendations overemphasized fisheries issues rather than other issues such as pollution. With regard to paragraph 14(a) of SBSTTA's recommendation I/8, an Annex to Decision II/10 notes that:

In relation to paragraph 14(a), the inclusion of subsidies was contentious. Some delegations stressed that the issue of subsidies was politically sensitive, with potential trade implications. It was noted that these issues address one of the underlying causes of biological diversity loss, viz., the result of over-fishing, and this consideration must remain an important recommendation from the report of the SBSTTA. It was also noted that there were a variety of other subsidies, which had impacts on the conservation, and sustainable use of marine and coastal biological diversity. The Executive Secretary is entitled to evaluate these aspects using a meeting of experts. Some delegations argued that the phrase 'subsidies for fisheries' appeared ambiguous. Government subsidies related to fishing activities have a great variety in their modalities. In addition, subsidies should not be evaluated alone. Evaluation of subsidies for fisheries should be conducted in relation to, or in conjunction with, considerations of fisheries management. It would be more appropriate to examine the various existing subsidies in the light of Article 11, which refers to economically and socially sound incentive measures.

In accordance with Decision II/10, a three-year work programme on marine and coastal biodiversity has been adopted under the CBD by the COP, its content finally being approved at the fourth meeting of the COP in May 1998. Although one programme element of the work programme is 'marine and coastal living resources', subsidies do not form an explicit element of the work programme.

UN Convention on the Law of the Sea

The 1982 UN Convention on the Law of the Sea (UNCLOS) contains a number of relevant provisions regarding the obligations of states with regard to the conservation and management of marine living resources. However, it does not specifically address fisheries subsidies.

Articles 116–120 UNCLOS address the conservation and management of the living resources of the high seas.

Article 117 imposes a general duty to take, or to co-operate with other states in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas. Under Article 118, states are to co-operate with each other in the conservation and management of living resources in the high seas, including negotiating on necessary measures where nationals of different states exploit identical resources or different resources in the same area. Article 119 sets out issues to be taken into account in establishing allowable catches or other conservation measures.

Agreement for the Implementation of the UNCLOS of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

The Straddling Stocks Agreement was formulated in 1995 as a supplement to the 1982 UNCLOS. The UN facilitated this agreement, but the FAO was actively involved with technical advice in reaching the agreement.

The objective of the Straddling Stocks Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of UNCLOS (Article 2). While not yet in force, the Agreement explicitly addresses issues of excess capacity.

The Agreement's preamble recalls the provisions of Agenda 21 (see discussion below) regarding high seas fisheries and the problems of over-capitalization and excessive fleet size, and recognizes the need to avoid adverse impacts on the marine environment, to preserve biodiversity, to maintain the integrity of marine ecosystems and to minimize the risk of long-term or irreversible effects of fishing operations.

Article 5(h) of the Straddling Stocks Agreement provides, as a general principle, that in order to conserve and manage straddling fish stocks and highly migratory fish stocks, coastal states and states fishing on the high seas shall, in giving effect to their duty to co-operate in accordance with UNCLOS:

take measures to prevent or eliminate over-fishing and excess fishing capacity and to ensure that levels of fishing effort do not exceed those commensurate with the sustainable use of fishery resources.

This general principle is not, however, elaborated into more specific obligations in the Agreement. Nevertheless, the Agreement explicitly endorses the precautionary approach, requiring states to apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks.²⁴

FAO Code of Conduct for Responsible Fisheries

The most extensive references to fisheries over-capitalization and excess capacity are found in the 1995 FAO

Code of Conduct for Responsible Fisheries (the 'Code'). The Code provides principles and standards applicable to the conservation, management and development of all fisheries. The Code is global in scope and voluntary, although states and all those involved in fisheries are encouraged to apply it.

The objectives of the Code are, *inter alia*, to establish principles and criteria for the elaboration and implementation of national policies for responsible conservation of fisheries resources and fisheries management and development. The Code is also intended to promote the trade of fish and fishery products in conformity with relevant international rules and avoid the use of measures that constitute hidden barriers to such trade.²⁵

The Code adopts an ecosystem approach stating that management measures should not only ensure the conservation of target species, but also of species belonging to the same ecosystem or associated with, or dependent upon, the target species.²⁶ It also endorses the precautionary approach to the conservation, management and exploitation of living aquatic resources.²⁷ The Code provides that international trade in fish and fishery products should be conducted in accordance with the principles, rights and obligations established in the WTO and other relevant international agreements. States should ensure that their policies, programmes and practices related to trade in fish and fishery products do not result in obstacles to this trade, environmental degradation, or negative social, including nutritional, impacts.²⁸

As a general principle, Article 6.3 provides that:

States should prevent over-fishing and excess fishing capacity and should implement management measures to ensure that fishing effort is commensurate with the productive capacity of the fishery resources and their sustainable utilization. States should take measures to rehabilitate populations as far as possible and when appropriate.

The need to prevent excess fishing capacity is reinforced throughout the Code in provisions on fisheries management.²⁹ In relation to fisheries management objectives, Article 7.2.2 recommends that states and fisheries organizations should adopt appropriate measures designed to maintain or restore stocks, which provide, *inter alia*, that excess fishing capacity is avoided and the exploitation of stocks remains economically viable; that the economic conditions under which fishing industries operate promote responsible fisheries; and that depleted stocks are allowed to recover or, where appropriate, are actively restored.³⁰ In relation to data gathering and management advice, the Code provides that studies should be promoted to provide an understanding of the costs, benefits and effects of alternative management options designed to rationalize fishing, in particular, options relating to excess fishing capacity and excessive levels of fishing effort.³¹ Finally, in relation to management measures, the Code again emphasizes that where excess capacity exists, mechanisms should be established to reduce capacity to levels commensurate with the sustainable use of fisheries resources so as to ensure that fishers operate under economic conditions that promote responsible fisheries.³²

Other FAO Activities

The 22nd Session of the FAO Committee on Fisheries³³ in 1997, urged that issues of excessive fishing capacity and fishing effort leading to over-fishing should be given special consideration by FAO and member countries.³⁴

The Committee welcomed a proposal to hold a technical consultation on management of fishing capacity in 1998, funded and hosted by the United States. The purpose of the consultation is to draft guidelines for the control and management of fishing capacities, as well as addressing related factors. Work undertaken on this basis has led to the preparation of the FAO International Plan of Action for the Management of Fishing Capacity, which was adopted by the Committee on Fisheries in February 1999.³⁵ The FAO organized a Technical Working Group on the Management of Fishing Capacity in La Jolla, USA from 15 to 18 April 1998. The immediate objective of the International Plan of Action is for states and regional fisheries organizations to achieve worldwide (preferably by 2003, but no later than 2005), an efficient, equitable and transparent management of fishing capacity. The plan, which is voluntary, provides an agreed framework for measures at national, regional and multilateral levels to balance fishing capacity with resource sustainability objectives.³⁶ It constitutes an important element in fishery conservation and sustainable management.

Fishing over-capacity was also noted in the preamble to the Declaration of the III Conference of Ministers of Fisheries held in A Toxa, Spain in September 1997. The preamble notes the 'present fishing over-capacity and the absence of adequate controls, which may endanger future fisheries resources and economic benefits'. It also notes the new trade framework emerging from the GATT Uruguay Round and the establishment of the WTO. The only operative paragraph of the Declaration invites international organizations and the international community with competence in fisheries and trade to search for effective solutions to these problems (and others identified in the preamble), and apply them as soon as possible, with the object of defining responsible trade in a manner which complements and promotes responsible fishing.

Agenda 21 and Follow-up

In relation to marine living resources of the high seas, and those under national jurisdiction, Agenda 21 recognizes problems of overcapitalization and excessive fleet size.³⁷ However, it does not go on to deal with these issues in any detail.

At its fourth session, in 1996, the CSD stressed the importance of the effective conservation and management of fish stocks and recommended implementing the recently adopted international instruments in order, *inter alia*, to prevent or eliminate over-fishing and excess fishing capacity.³⁸

At the review of Agenda 21 in 1997, the Special Session of the UN General Assembly recognized the urgent need for:

Governments to prevent or eliminate over-fishing and excess fishing capacity through the adoption of management measures and mechanisms to ensure the sustainable management and utilization of fishery resources and to undertake programmes of work to achieve the reduction and elimination of wasteful fishing practices, wherever they may occur, especially in relation to large-scale industrialized fishing. The emphasis given by the CSD at its fourth session to the importance of effective conservation and management of fish stocks, and in particular to eliminate over-fishing, in order to identify specific steps at the national or regional level to prevent or eliminate excess fishing capacity, will need to be carried forward in all appropriate international forums including, in particular, the Committee on Fisheries of the Food and Agriculture Organization of the United Nations.³⁹

As can be seen from the foregoing discussion, fisheries subsidies are increasingly being recognized as the major contributor to fleet over-capacity and the mismanagement of fisheries resources. They are seen to distort world prices and trade, and have a negative impact on sustainable fisheries use inconsistent with widely agreed international agreements.

Policy Responses from the WTO

It is commonly acknowledged that government subsidies to fishing industries substantially contribute to the depletion and degradation of fisheries resources worldwide.⁴⁰ By providing these subsidies, governments assist an industry that has aggressively exploited a vulnerable resource. At the same time, the authorities pursue fisheries management practices that appear to turn a blind eye to the subsidization of resource depletion. Thus the system partly works to sustain resources but results in their steady decrease.

Determining the extent of government support for the fisheries sector is difficult due to the lack of transparency and the ambiguities over definitions.⁴¹ Nevertheless there is little doubt that the support is extensive (in the region of tens of billions of dollars), and has contributed to the development of substantial infrastructure.⁴²

The WTO has acknowledged that consensus exists that fisheries subsidies are widespread, trade distorting and undermine the sustainable use of fisheries resources.⁴³ The trade, development and environment impacts of fishing subsidies therefore means that the WTO, with the assistance of organizations like the FAO, CBD and the Organization for Economic Co-operation and Development (OECD), is an appropriate forum to address such trade distorting measures.

The Committee on Trade and Environment

The subject of subsidy reduction and elimination has been raised in the WTO Committee on Trade and Environment (CTE) in the context of the identification of certain 'win-win' scenarios that achieve benefits for both trade and the environment. Discussions on fisheries subsidies highlight the complexity of reaching agreement on the necessity and nature of the appropriate response by the WTO. With arguments on both sides of the debate on the role of fisheries subsidies in fisheries resource depletion and trade distortion, the only possible consensus was that more research was needed and that there should be co-operation amongst bodies such as the WTO, OECD and FAO.⁴⁴

More recently, the United States, Iceland and New Zealand, supported by other WTO members, have been particularly vocal on the urgent need for immediate action on reduction and elimination of some of the most damaging subsidies. Iceland has tabled two papers on the subject detailing the fisheries management regime in Iceland, which uses a system of total allowable catches and ITQs, and outlining the environmental impact of fisheries subsidies worldwide.⁴⁵ In highlighting the negative consequences of fisheries subsidies on the ability of fish-exporting developing countries to benefit from their own fisheries resources, New Zealand has proposed, *inter alia*, that the CTE's future work should include:

- (i) an invitation to the FAO to provide information on the implementation of the FAO Plan of Action and any other activities taken to address the problem of over-capacity in the fisheries sector;
- (ii) further analysis and study of the implementation of existing WTO disciplines as they apply to subsidies affecting the fisheries sector.⁴⁶

The New Zealand proposals have found support with countries like Peru, the Philippines, Argentina, Australia and Chile. However, the suggestions by Iceland and New Zealand that removal of subsidies would allow developing countries to develop their own capacity on fisheries exploitation which could promote economic growth and development, does not appear to have found favour with many WTO members. Some like the United States, supported by Norway, have counselled against the WTO adopting a response which is 'over-broad', suggesting that the focus should be on those subsidies which contribute to 'over-capacity'.⁴⁷ The European Union (EU), as one of the WTO members which provides the most extensive subsidies,⁴⁸ advised that some subsidies have helped reduce capacity by addressing social concerns related to fisheries. Canada also supported the idea of the distinction between subsidies that were detrimental to the environment and those that were more environmentally benign.⁴⁹ Japan and Korea have expressed similar sentiments about the complexity of existing fisheries subsidy regimes.

There are dangers inherent in trying too conscientiously to separate environmentally benign and harmful subsidies before action is taken to progressively reduce and eliminate fisheries subsidies. The basic problem according to Milazzo is that given the negative trends in the status of the resources, the mobility of capital, and the relative ease with which vessels can easily be refitted to operate in fisheries other than those for which they were originally intended, the prudent policy is to treat all such subsidies as potentially harmful to the resource.⁵⁰

Some commentators now believe that the issue of reduction and elimination of subsidies can only realistically come through negotiation of a separate fisheries agreement or insertion of fisheries subsidy disciplines within the Agreement on Agriculture.⁵¹ Certainly there appears to be some political momentum towards including the issue of fisheries subsidies in the forthcoming round of trade negotiations to be undertaken in the WTO beginning in 2000.

The Agreement on Subsidies and Countervailing Measures (SCM)

The focus of further work in the WTO will be on examining the various disciplines in the Agreement on Subsidies and Countervailing Measures (SCM), particularly those on transparency and notification and the categories of subsidies outlined in the Agreement.

The SCM Agreement is part of the package of WTO agreements signed by all members of the WTO. The Agreement does two things: it disciplines the use of subsidies, and it regulates the actions countries can take to counter the effect of subsidies. To this end, it states that a country can use the WTO's dispute settlement procedure to seek the withdrawal of the subsidy or the removal of its adverse effects. Alternatively, the country can launch its own investigation and ultimately charge extra duty, known as countervailing duty, on subsidized imports that are found to be hurting domestic producers.⁵²

The SCM represents a significant improvement and clarification of the rules governing subsidies and countervailing measures in the GATT. Prior to the SCM, Article XVI of the GATT simply sought to have the parties 'avoid' using subsidies in the export of certain primary products. The SCM has made major progress in defining and classifying subsidies and establishing tests of their actionability.⁵³ In order to challenge a subsidy under the SCM, a member state must show that the government funding is a subsidy,⁵⁴ that the subsidy is specific,⁵⁵ that it fits within one of the three categories for an actionable subsidy,⁵⁶ and finally that it causes an adverse economic effect.⁵⁷

Despite the fact that the SCM Agreement has considerably clarified and reformed the disciplines on subsidies, no WTO member has yet challenged another member's fisheries subsidies under the Agreement. The reason may lie in the fact that fisheries subsidies are notoriously un-transparent.

Article 25 SCM obliges WTO Member States to notify subsidies they are granting or maintaining within their territories. Notification of subsidies should take place at a precise enough level for other Member States to use the provided data to evaluate whether the subsidies have a trade distorting effect.

An examination of recent subsidies notified to the Committee of Subsidies and Countervailing Measures reveals that notifications are not nearly as specific as the SCM Agreement requires. Notifications should be 'sufficiently specific to enable other Members to evaluate the trade effects and to understand the operation of notified subsidy programs'.⁵⁸ To this end, notifications shall contain *inter alia* 'statistical data permitting an assessment of the trade effect of a subsidy'.⁵⁹

Data is generally disclosed only in the most general terms.⁶⁰ Normally the notifications do not set out in detail how funds that have been provided, for example, for the improvement of fishing or for the conversion of

the fishing fleet, have exactly been allocated among beneficiaries. Neither do they indicate the exact beneficiaries or the nature of the specific subsidized activity.

The very general provision of data does not allow for a systematic evaluation of the effects on trade by the subsidies. In order to realistically assess the trade distorting effects, an examination of the subsidy as it relates to one product or group of products would be needed. General information on block subsidy categories makes it impossible to analyse how much support goes to one product, and the nature of the trade distorting effect, if any.

Information on subsidies is a prerequisite for a preliminary assessment of the prospects of challenge by one WTO member of another member's subsidies. Obviously, this is precisely the purpose of the notification scheme under the SCM. However, the general nature of existing notification by members undermines the notification procedure and threatens the effectiveness of the Subsidies Agreement itself. Arguably the lack of transparency on notification itself, which is a failure to comply with procedural rules indispensable for the functioning of the Subsidies Agreement amounts to a breach of the SCM Agreement and may itself therefore be challengeable by an affected member state.

However, the prospects for a challenge to fisheries subsidies in the dispute settlement process in the near future seem remote. Mounting such a challenge is an extremely fact- and technical-intensive undertaking. The countries which have the most to gain by initiating a case before a dispute settlement panel have few resources to dedicate to preparing and maintaining a challenge. Moreover, the SCM Agreement appears more suitable to tackling one specific subsidy to a given product in a specific period of time. Fisheries subsidies have been provided over decades, and have helped to shape the nature of the global fish market.⁶¹ Most of the subsidies given by governments are borderline actionable or they could fall within one or other of the exceptions in the Agreement.⁶²

Conclusion: The Future of Fisheries Management

Reduction and elimination of fisheries subsidies will need to play a major role in future global fisheries management and vice versa. Indeed, the issue of fisheries subsidies no longer concerns the question of whether they will be reduced and eliminated but when and how to do so. The fragmentation of the international institutions responsible for trade and environment policy means that the consequent argument is over how to achieve policy coherence that will generate national and regional results.

Policy co-ordination at the international level should involve the WTO provisions, commitments assumed under the CBD, Straddling Stocks, and Law of the Sea Conventions, as well as the voluntary initiatives pro-

posed by the FAO. Indeed the precautionary approach contained in the Straddling Stocks Agreement, and the CBD provide the foundation on which future fisheries management should be based. The framework suggested in the FAO Plan of Action that involves national, regional and international action could form the starting point for progressively reducing global capacity in the fishing industry. The strategies elaborated under the auspices of the Plan of Action could be the basis of commitments undertaken by WTO members to reduce and eliminate subsidies that spawn such capacity. Whether such commitments are assumed through a free standing agreement or inserted into an existing WTO agreement will depend on the political realities faced by the international community in the coming years. But the important issue is to have legally binding commitments capable of being enforced.

It is significant that there is now dialogue between the WTO and organizations responsible for major environmental agreements. The FAO and the CBD Secretariat have observer status at CTE meetings. Policy coherence will depend on institutional co-ordination. This also extends to the regional fisheries organizations whose vital role is envisaged in the Straddling Stocks Agreement. They are accorded valuable rule-making and enforcement powers by the Agreement and these powers will be crucial in translating the foreseeable commitments by states on fisheries subsidies into action at the regional and national levels. One regional fisheries organization, the International Commission for the Conservation of Atlantic Tunas (ICCAT), is also an observer at CTE meetings. Alternatively, developments at the regional level may act as a catalyst for reform at the global level. Either way, the interaction between the regional and international institutions will be crucial in the next phase of fisheries policy-making. It is certain that in this regard, the WTO can and must play a pivotal role.

Notes

1. *Report of the 22nd Session of the Committee on Fisheries*, Rome, 17-20 March 1997 (FAO Fisheries Report No. 562).
2. *The State of the World Fisheries and Aquaculture (SOFA) 1998* (Rome: FAO, 1998).
3. *Id.*
4. *Id.*
5. J. Fitzpatrick and C. Newton, *Assessment of the World's Fishing Fleet, 1991-1997*, Greenpeace International, 15 January 1998, p. 3.
6. *FAO Precautionary Approach to Fisheries. Part 2, Scientific Papers: Technology and Fisheries Legislation*. FAO Fisheries Technical Paper No. 350, Rome 1996, p. 210.
7. Overall, Greenpeace estimates that the international community should be requiring an almost 50% reduction in world fishing fleet size on the basis of the 22% increase in vessel capacity from new construction and refits and the recommendations for a 25% reduction in fleet size. Fitzpatrick and Newton, n. 5 above, p. 9.
8. J. Gates, Dan Holland and Eyjólfur Gudmundsson, *Theory and Practice of Fishing Vessel Buyback Programmes*, in *The Role of Trade Policies in the Fishing Sector*, UNEP/WWF Workshop, Geneva, 2-3 June 1997.
9. R. Arnason, *Developments in Fisheries Management Techniques and Approaches*, in *Symposium on The Interrelationship between Fisheries Management Practices and International*

- Trade, Report of Proceedings, PECC Task Force on Fisheries Development and Cooperation, Wellington, New Zealand, 24–26 November 1996.
10. Australia, Greenland, Iceland, Netherlands and New Zealand use ITQs as a major part of their fisheries management, while others like Canada, Chile, Denmark, Namibia and the United States use ITQs in some fisheries.
 11. Arnason, n. 9 above.
 12. *Id.*
 13. Gates *et al.*, n. 8 above, p. 21.
 14. An example of this may be the predominance of Spanish corporate interests in the Namibian hake fishery.
 15. Gates *et al.*, n. 8 above, p. 20.
 16. *Id.*
 17. *Id.*
 18. Arnason, n. 9 above.
 19. *Report of the Secretary-General (E/CN.17/1996/3)*, Section IV, para. 18. This report was prepared to address the actions required to implement Chapter 17 of Agenda 21 on sustainable development of oceans and coastal areas.
 20. *Report of the Commission on Sustainable Development on Preparations for the Special Session of the General Assembly for the Purpose of an Overall Review and Appraisal of the Implementation of Agenda 21 (E/1997/60)*, para. 30.
 21. For instance, Articles 5, 6, 8, 10 and 11.
 22. Decision IV/10, A, paras. 1(a) and 1(f).
 23. UNEP/CBD/COP/2/5.
 24. Article 6.
 25. Article 2.
 26. Article 6.2. This is taken up in the Technical Guidelines produced by the FAO for implementation of the Code on fisheries management, which note that responsible fisheries management should consider the impact of fisheries on the ecosystem as a whole, including its biodiversity, and should strive for sustainable use of the whole ecosystem and biological community. *FAO Technical Guidelines for Responsible Fisheries, No. 4, Fisheries Management*, para. 1.3.3(i), Rome, 1997.
 27. Article 6.5.
 28. Article 6.14.
 29. See e.g. Article 7.18
 30. See paras. (a), (b) and (e).
 31. Article 7.4.3.
 32. Article 7.6.3.
 33. The session was attended by 92 Members of the Committee, observers from 13 Member Nations, plus other observers.
 34. Paragraph 11 of the report of the session notes that: 'Many delegations also stressed that frequent use of direct and indirect subsidies in fisheries often aggravated excess capacity. Other delegations pointed out that the effects of subsidies cannot be systematically linked with fishing over-capacity.'
 35. *Report of the 22nd Session of the Committee on Fisheries*, para. 12.
 36. See FAO Fisheries Report No. 586.
 37. Chapter 17, paras. 17.45 and 17.71.
 38. Decision 4/15, CSD, 1996.
 39. Para. 36(E), *Programme for the Further Implementation of Agenda 21*, adopted by the Special Session of the UN General Assembly, 23–27 June 1997.
 40. See generally, M. Milazzo, *Subsidies in World Fisheries: A Reexamination*, World Bank Technical Paper No. 406, 1998; G. Porter, *Fisheries Subsidies, Overfishing and Trade, 1998: Review of Fisheries in OECD Countries*, OECD, 1996.
 41. C. Stone, *Trade Law Responses to the Challenge of Fishing Subsidies*, GETS Paper, 1997, p. 10.
 42. M. Milazzo, *Subsidies in World Fisheries, A Reexamination*, World Bank Technical Paper No. 406, 1998, p. 8, 9.
 43. See *Environmental Benefits of Removing Trade Restrictions and Distortions*, WT/CTE/W/67, 6 November 1997, para. 93.
 44. Report of the Meeting held on 19–20 March 1998, Note by the Secretariat, WT/CTE/M/17, 9 April 1998.
 45. *The Icelandic Fisheries Management System: A Market-Driven Sustainable Fisheries Regime*, Submission by Iceland, WT/CTE/W/103, 25 January 1999; *On the Environmental Impact of Fisheries Subsidies*, A Short Report by the Icelandic Ministry of Fisheries, 1 February 1999, WT/CTE/W/111, 11 March 1999.
 46. See *Benefits of Eliminating Trade Distorting and Environmentally Damaging Subsidies in the Fisheries Sector*, Submission by New Zealand, WT/CTE/W/121, 28 June 1999.
 47. *WTO Trade and Environment Bulletin*, PRESS/TE/029, 30 July 1999.
 48. The annual EU fisheries budget is Euro 875 million. 80% of this is allocated to two areas: 260 million (30–35%) is spent on securing and subsidizing access licences for EU distant water vessels to fish in other waters. And 450 million is spent on restructuring and modernizing the fishing fleet under the structural funds. See *El Anzuelo*, European Newsletter on Fisheries and the Environment, Vol. 3, 1999; See also N. Johnstone, *The Economics of Fisheries Access Agreements: Perspectives on the EU-Senegal Case*, IIED Discussion Paper 96–02, 1996.
 49. *Id.*, p. 8.
 50. Milazzo, n. 42 above, p. 12. He uses the example of Thailand's experience in promoting development of its capture fisheries, where vessels that were originally fitted to catch less-exploited pelagic fisheries, within a few years had been converted into trawlers to catch already over-fished demersal stocks.
 51. See Stone, n. 41 above, p. 17ff; *The Footprint of Distant Water Fleets on World Fisheries*, WWF International, 1998, p. 157.
 52. Article 5.
 53. Subsidies are respectively prohibited, actionable or non-actionable.
 54. Article 1.1.
 55. Article 2.1 – it must be clearly targeted at certain industries or enterprises in a given geographic area.
 56. Article 5.
 57. Article 6.3.
 58. SCM Agreement, Article 25.3.
 59. *Id.*, Article 25.3 (v).
 60. See example, notification by Spain, G/SCM/N/38/Add. 13.
 61. Milazzo, n. 42 above, p. 73ff.
 62. Article 8.2 – Either for research, disadvantaged regions or compliance with environmental requirements.

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