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Fisheries Subsidies and the World Trade Organisation Subsidies Agreement: The EU's Achilles Heel or the Triumph of Regulatory Policy Integration?

Zen Makuch*

The objectives of this paper are threefold in nature. At a thematic level, it seeks to illuminate the inter-relationship of international subsidies regulation with development assistance policy and sustainable resource management. This is attempted by reference to a detailed analysis of the WTO Agreement on Subsidies and Countervailing Measures and other applicable international and European Community law and policy pertaining to European Union – African, Caribbean and Pacific country agreements. Thereafter, it attempts a detailed categorisation and analysis of the complex, fragmented range of subsidies that appear in the fisheries sector. Finally, it offers some concluding thoughts on the necessity and importance of EU leadership in relation to the development of subsidies law disciplines, which can support development policy goals in a manner consistent with sustainable fisheries management practice. Underlying the analysis is the central premise that, if the EU is to succeed in its ambitious development policy agenda, then it must show the same political courage and policy ingenuity that has made it a world leader in the international law of environmental protection and resource management, by intensifying efforts to discipline subsidies regulation and policy at the EU and international levels.

Keywords fisheries trade, subsidies, financial assistance, responsible fisheries, EC, WTO, ACP

Introduction¹

The European Union (EU) has approached a critical juncture with respect to its position in international society *vis-à-vis* the promotion of an integrated regulatory and policy strategy

* Reader-in-Law, Director of IC Legal, Imperial College, London. Address for correspondence: Centre for Environmental Policy, Imperial College, London, United Kingdom (z.makuch@imperial.ac.uk). The author was privileged to participate in, and has been influenced by, the work of an excellent group of experts who set out to provide, in the lead up to the 2002 World Summit on Sustainable Development (WSSD), a fisheries regulation and policy blueprint for the future under the auspices of the UN-funded World Humanity Action Trust. The analytical results of this work can be found in: P. Manning, R. Hannesson, D. Fraser, S. Garcia, J. Kurien, Z. Makuch, M. Sissenwine, G. Valdimarsson and M. Williams, "Fishing for the Future", in *Governance for a Sustainable Future, World Humanity Action Trust, 2000*. The report is reproduced online at: <www.earthsummit2002.org/es/issues/Governance/whatgov2.pdf>.

¹ As well as M. Milazzo's groundbreaking study on fisheries subsidies – M. Milazzo, "Subsidies in World Fisheries: A Re-examination", *World Bank Technical Paper No. 406* (Washington: World Bank, 1998) – see also G. Porter, *Fisheries Subsidies, Overfishing and Trade* (Geneva: UNEP, 1998); OECD, *Review of Fisheries in OECD Countries* (Paris: OECD, 1996); B. Chaytor, "The Challenge of Fisheries Subsidies", *Review of European Community and International Environmental Law*, Vol. 8, Issue 3 (1999); D. Schorr, "Towards Rational Disciplines on Subsidies towards the Fisheries Sector: A Call for New International Rules and Mechanisms", *WWF Discussion Paper* (Gland: WWF, 1998). Also of interest in the context of sustainable fisheries management practice, developing country fisheries policy and fish subsidies topics are: D. Freestone and Z. Makuch, "The New International Environmental Law of Fisheries", *Yearbook of International Environmental Law*, Vol. 7 (1998); G. Porter, *Euro-African Fishing Agreements: Subsidising Overfishing in African Waters* (Washington: WWF, 1997); and R. Steenblik, *Previous Multilateral Efforts to Discipline Subsidies to Natural Resource Based Industries* (Paris: OECD, 1998).

towards disciplining subsidies in a development policy and sustainable fisheries management context. As the EU is a major provider of fish subsidies, both through the internal Common Fisheries Policy (CFP) and through its bilateral agreements with developing countries, the EU is in an ideal position to advance international fish subsidies law and policy. This is a particularly compelling period in the evolution of the debate because, in accordance with its World Trade Organisation (WTO) obligations, the EU has now been forced to phase out the system of trade preferences for fish products (amounting to €100 million) that developing countries have enjoyed under the Lomé Conventions.² Furthermore, subsidies regulation is on the edge of a watershed in the context of discussions at the WTO Negotiating Group on Rules.³ It is a forum in which the EU has been slow to react thus far and yet there is much at stake both for the EU and African, Caribbean and Pacific (ACP) States as well as other fishing nations.

The EU is not the only jurisdiction in which fisheries subsidies have touched upon resource management effectiveness. In most jurisdictions, increasing human knowledge of fisheries and technological efficiency have led to the progressive depletion of fisheries resources. Thus, the rhetorical question arises as to whether governance issues have kept pace with fishing effort and efficiency. Equally, there is a query as to whether incentivising fishing effort through subsidies exacerbates exploitation of dwindling fisheries resources.⁴ Though the intuitive answer might be yes, it is indeed possible that fishing effort will continue unabated without subsidies as our collective appetite for fish continues to grow.⁵ What these observations tell us is that at least some if not most types of subsidies are, perhaps, a waste of taxpayers' hard-earned income.

When the proposition is added that, taken in aggregate, yields of fish are unlikely to rise given the maximum sustainable yield of fisheries resources, the place of subsidies in fisheries policy becomes even more confounding. Perhaps more detailed discussion and debate about the place of subsidies in the fisheries sector is required. However, before such a debate can occur, certain detailed baseline analyses need to be undertaken in order to determine how fisheries subsidies are currently regulated. As the world's dominant international economic institution, it is right to begin by examining World Trade Organisation rules on subsidies. The WTO is the source not only of the Agreement on Subsidies and Countervailing Measures (Subsidies

² For 25 years, the Lomé system provided the framework for development cooperation between the EU and developing countries in Africa, the Caribbean and the Pacific. In total there have been four Lomé Conventions, the first one having been adopted in 1975. The Lomé system has now been replaced by a new agreement – the Cotonou Agreement – discussed below.

³ Among other things, the WTO Negotiating Group on Rules is the forum that is responsible for the clarification and improvement of WTO legal disciplines on fisheries subsidies. For the past two and a half years, WTO Members have been submitting various communications on this subject to the Negotiating Group on Rules for further deliberations among WTO Members.

⁴ Evidence from the “yes” camp can be found in: G.P. Sampson and W.B. Chambers (eds), *Trade and Environment and the Millennium* (Tokyo: United Nations University Press, 1999). Evidence in support of the “no”, or at least “agnostic” camp, can be found in OECD, *Government Financial Transfers and Resource Sustainability* (Paris: OECD, 2000).

⁵ Furthermore, curbing such subsidies is generally an unpopular move in political terms owing to the organisational strength of the fisheries sector, its longevity and political influence in fisheries law and policymaking processes vis-à-vis the NGO community. This is particularly the case in nations where fishing forms part of national cultural heritage and is seen as a basic natural right, which subordinates other public policy aims.

Agreement)⁶ but also its potential reform. It is the author's modest hope that this paper will advance discussions in this regard.⁷

This paper provides an overview of the regulatory and related public policy dimensions of different forms of subsidies in the fisheries sector. It offers the regulatory and policy context in which the effects on coastal developing countries of subsidies in.. countries with DWF (distant water fishing) fleets can be reviewed. Analogously, it is the framework in which the different subsidies provided by the governments of coastal developing countries themselves can also be reviewed. To indicate the importance of this issue in an EU–ACP context, it should be recalled that there are currently more than 20 bilateral agreements in place between the EU and other countries with the great majority of these involving developing or least-developed States (using WTO parlance). These agreements, according to a 1999 estimate, account for some 41,000 jobs per annum.⁸ It is a central contention that if these agreements are to be successful then subsidies which contribute to overcapacity or overfishing must be phased out. Moreover, the commercial aspects of the agreements should be integrated in a supportive manner with overseas development assistance policy and sustainable fisheries management practice. Therefore, subsidies that detract from overseas development assistance or sustainable fisheries management practice should be phased out in the interest of policy coherence. Article 27 of the WTO Subsidies Agreement should be interpreted accordingly as it applies to developing and least-developed countries.

Noting that current WTO legal disciplines are unclear as to the relationship between fisheries subsidies, overseas development policy and sustainable fisheries management recourse to WTO dispute settlement should not be seen as the best solution for establishing greater policy coherence in relation to trade rules. Moreover, trade litigation can have political and economic consequences for weaker WTO Members. Therefore, diplomatic WTO Member negotiations towards the development of an “agreed interpretation” of the Subsidies Agreement’s application to fish subsidies may well be a key solution to be advanced under the auspices of the WTO Committee system.

In terms of structure, the next section analyses applicable law, with particular emphasis on the WTO Subsidies Agreement. After a discussion of emerging policy measures it offers a detailed categorisation and analysis of subsidy types that can appear in EU–ACP bilateral agreements and in other jurisdictions. It then offers some concluding remarks.

⁶ Reproduced at: <www.wto.org/english/tratop_e/scm_e/scm_e.htm>.

⁷ The World Trade Organisation is the institutional body that administers the WTO Agreement and uses its good offices to advance the further development of the world trading system. It does so through its Committee system and by facilitating further rounds of trade negotiations such as the current Doha Round. The WTO replaced the GATT in 1994 but still takes account of legal disciplines that evolved in the GATT system (since 1947) to the extent that they are not inconsistent with WTO rules. In addition to the work conducted on fisheries subsidies in the Negotiating Group on Rules, fish subsidies have been and continue to be on the WTO – Committee on Trade and Environment (CTE) Agenda. See, for example, “Item 6 – Effects of Trade Measures on Market Access” as reported in the *Trade and Environment Bulletin*, PRESS/TE/034, 31 October 2000.

⁸ See Institut Français de Recherches pour l’Exploitation de la Mer (IFREMER), Centre for the Economics and Management of Aquatic Resources (CEMARE) and Centre pour des Etudes de Projets (CEP), *Evaluation of Fishing Agreements Concluded by the European Community* (Brussels: European Commission, 1999). It should be observed, however, that the principal contributor to employment in this estimate was the agreement with Morocco, which has now expired.

The WTO Subsidies Agreement

In order to understand the wider regulatory and policy dimensions of fisheries subsidies it is appropriate to place them in the right framework. This framework is primarily the WTO Agreement on Subsidies and Countervailing Measures (Subsidies Agreement). The Subsidies Agreement is meant to regulate efforts to discipline subsidies in international, national and sub-national jurisdictions and supersedes and improves upon the Agreement on Interpretation and Application of Articles VI, XVI and XXIII, which was introduced into the GATT/WTO system as a result of the Tokyo Round of negotiations.⁹

By way of improvement, the Subsidies Agreement provides a definition of subsidy¹⁰ – defined as a financial contribution involving: a direct transfer of funds or liabilities; foregone government revenue; government goods or services; or capital payments through a private or public body. The Agreement also adds the notion of a “specific subsidy”, identified as a subsidy which is available only to an enterprise or industry, or group of enterprises or industries, within the jurisdiction of the government entity granting the subsidy.¹¹ Only specific subsidies are to be disciplined under the Subsidies Agreement which is why those that support the application of the Subsidies Agreement to fish subsidies must argue that they are specific to the fishing industry or enterprise or group of enterprises (referred to in Article 2.1 of the Subsidies Agreement as “certain enterprises”).¹² In the case of *United States – Definition of Industry Concerning Wine and Grape Products* and in the 1979 Agreement on Interpretation and Application of Articles VI, XI and XXIII of the General Agreement “(domestic) industry” was defined as the domestic producers as a whole of (like) products or those of them whose collective output constitutes a major proportion of the total domestic production of the subsidised products.¹³ Though case law has not yet illuminated this definition, it no doubt will in the future, as the failure to establish whether a specific subsidy exists will potentially end in a case under the Subsidies Agreement.

The Subsidies Agreement provides for three main types of subsidies. First, it identifies prohibited subsidies as follows: those contingent in law or in fact, whether solely or as one of several other conditions, upon export performance and those contingent, whether solely or as one of several other conditions, upon the use of domestic rather than imported goods.¹⁴ According to WTO Dispute Settlement Body¹⁵ rules, with time being of the essence, if a subsidy is found to be prohibited it must be immediately withdrawn. The failure to withdraw the impugned subsidy within a prescribed time period allows for countervailing measures to be applied by the country that is adversely affected by the prohibited subsidy. There are relatively

⁹ See Article VI and XVI of the General Agreement on Tariffs and Trade 1947 (GATT) and the 1979 Subsidies Code of the Tokyo Round of international trade negotiations.

¹⁰ Article 1 of the Subsidies Agreement.

¹¹ *Ibid.*, Article 2.

¹² *Ibid.*, Article 2.1.

¹³ *United States – Definition of Industry Concerning Wine and Grape Products* (SCM/71) and in the 1979 Agreement on Interpretation and Application of Articles VI, XI and XXIII of the General Agreement (15S/24, 27; 26S/171, 175; 26S/56, 65).

¹⁴ Article 3 of the Subsidies Agreement.

¹⁵ See Article 4 of the Subsidies Agreement (in general) and, specifically, Articles 4.3 to 4.7. Article 4 explains the remedies and procedural considerations that apply in the context of prohibited subsidies. These provisions are to be situated in the rules and procedures of the WTO Dispute Settlement Body pursuant to the WTO Dispute Settlement Understanding.

few strictly prohibited subsidies in the fisheries sector because prohibited subsidies are directed either at export performance or the use of domestic rather than imported goods.¹⁶ On the matter of prohibitions, if one was pursuing a more environmental or fisheries conservation stance then it may be worthwhile to extend said prohibitions to include subsidies that promote overcapacity and overfishing.

The second type of subsidy is an actionable subsidy. The Subsidies Agreement states that no Member (of the WTO) should cause an adverse effect on another Member through the use of a subsidy (e.g., nullification and impairment of GATT/WTO benefits, injury to industry) or serious prejudice to the interests of another country.¹⁷ The benefits that can potentially be nullified or impaired are those which accrue to WTO Members as a result of tariff or other concessions or rights negotiated in previous trade rounds. For example, “free trade” in a product would suggest that a subsidy favouring domestic versus foreign producers nullifies the benefits available to non-domestic WTO Members by creating a non-level playing field in the domestic market for a good. “Injury to industry” could be expressed as a weakening of market share. “Serious prejudice” (Article 6) exists when more than 5% of the total *ad valorem* of a product is subsidised, with the burden of proof being on the country invoking the subsidy.¹⁸ The 5% threshold is particularly important because many subsidies actually exceed it and are hence subject to legal challenge if the right Subsidies Agreement conditions can be met.¹⁹ Serious prejudice may also exist when subsidies are granted by a WTO Member to cover operating losses sustained by the fishing industry or an enterprise within the industry (unless the subsidy to the individual enterprise is non-recurring and provides for the development of long-term solutions and to avoid acute social problems).²⁰ However, the serious prejudice test (discussed below) would appear to be a cumbersome one. Moreover, Article 6(1) would have to be revived for said subsidies as it has now been suspended. The status of actionable subsidies is subject to a Dispute Settlement Body ruling. Where adverse effects are determined, then the subsidising country may either remove the subsidy or the adverse effects.²¹

The third subsidy category concerns non-actionable subsidies under Article 8, which have since lapsed.²² These subsidies are either non-specific subsidies, or specific subsidies that provide assistance to competitive development activity, industrial research or assistance for adapting existing facilities to environmental (e.g., may include resource conservation or management) standards imposed by law. Under Article 8, if another country believes that an otherwise non-actionable subsidy results in serious adverse effects to an industry, it may seek a ruling or recommendation on the non-actionable subsidy. Interestingly, fisheries conservation oriented subsidies (e.g., for research and development, sustainable management practices, fisheries surveillance, institutional supports, seminars/training, fishing community supports and quality control measures) would not likely qualify for subsidies relief as they

¹⁶ See, for example, Article 3.1(a-b) and Annex I of the Subsidies Agreement, which provides an illustrative list of twelve export performance-related subsidies.

¹⁷ *Ibid.*, Article 5.

¹⁸ *Ibid.*, Article 6. Article 6(1)(a) expired in January 2001.

¹⁹ See Porter, *supra* n. 1; and OECD, *Review of Fisheries in OECD Countries* (Paris: OECD, 1996) at 66.

²⁰ Article 6.1 of the Subsidies Agreement.

²¹ *Ibid.*, Article 5.

²² *Ibid.*, Article 8. Such subsidies have lapsed but it is entirely possible that they will be revived in some form as the dialogue and debate develops over disciplining specific fish subsidies.

might be applied in disadvantaged regions of a WTO Member because, if Article 8.2(b)(i) were re-instated, such subsidies could only be applied if they are “non-specific subsidies” within the meaning of Article 2 of the Subsidies Agreement.²³

Further to this point, these types of subsidy support continue to exist in current EU–ACP States fisheries agreements despite the EU commitment to a “fisheries partnership” approach. To take one example, the current bilateral Agreement with the Government of Angola provides for scientific and technical programmes, quality control programmes, small-scale fishing community supports, fisheries surveillance, institutional support for fisheries and environment and school and training programmes amounting to €4,975,000.²⁴ To provide another example, in addition to providing fishing access subsidies to the EU fleet to the tune of at least €1,100,000 over five years,²⁵ in the bilateral Agreement with the Republic of Guinea, €800,000 is dedicated to the purchase of surveillance vessels²⁶ and Article 3 of the Agreement states that a portion of the overall financial compensation (€7,000,000 to €19,975,000) shall be devoted to the sustainable management of Guinean fish stocks though these mechanisms are not specified.²⁷ The subsidies identified in this bilateral Agreement would appear to fall under the latter two categories (i.e., actionable and non-actionable subsidies) of the three categories which feature in the Subsidies Agreement. If a WTO Member provided category three subsidy measures domestically then they would not fall within the Article 8 non-actionable subsidies category. For WTO Members that are developing and least-developed countries, assuming that they wished to maintain such subsidies (perhaps in a more modest format), little relief would appear to be in sight by reference to the special and differential treatment of developing country Members provisions contained in Article 27 of the Subsidies Agreement.

Finally, in the context of this type of subsidy, mention should be made of the Article 8(2)(c) environmental subsidy provisions which include in this category subsidies for adaptation to new environmental requirements that create greater constraints and financial burdens on firms. These subsidies, however, would appear to be designed for pollution control matters rather than sustainable fisheries management measures. Though Article 8(2)(c) does refer to adaptation to “new production processes”, interpretation of this term would have to be considerably broad if it were to include changes in fisheries management practices or fishing techniques.

The Agreement provides detailed rules on countervailing measures as they apply to subsidised imported goods.²⁸ Investigations by national authorities, rules of evidence, subsidy calculations, determinations of injury considerations, affected sectors and *de minimis* rules are all set out. In general, investigations are to be completed within one year and countervailing measures are restricted to a life of five years.

²³ See Articles 8(2)(b) and Article 2 of the Subsidies Agreement.

²⁴ The Angola Bilateral Agreement has a total value of €31,000,000 and covers fishing opportunities for shrimp, demersal fishing, seiners, longliners, and experimental pelagic fishing.

²⁵ See Articles 2 and 8 of the Protocol defining for the period 1 January 2004 to 31 December 2008 the fishing opportunities and financial contribution provided for in the Agreement between the European Economic Community and the Republic of Guinea on fishing off the coast of Guinea, [2004] OJEC L 99/12.

²⁶ *Ibid.*, Article 4.

²⁷ *Ibid.*, Article 3

²⁸ See Articles 10–23 of the Agreement.

Out of recognition for the role of economic development programs in developing countries and least developed countries, those countries with a per capita GNP of less than \$1,000 are exempted from disciplines on prohibited export subsidies and have a time limited exemption from other prohibited subsidies. Countervailing investigations of developing country products must also be terminated if the overall level of subsidy does not exceed 2–3% of the amount of the product.²⁹ The same exemption applies if the amount of the subsidised imports is less than 4% of the total imports of like products in the importing country.³⁰ All of these rules apply to the fisheries sector.

The Subsidies Agreement is based on the premise that subsidies are not illegal unless they cause trade distortions. Export subsidies provide an example of a trade distortion that is actionable. It should be noted that, at present, there has been general acceptance among the most developed economies not to challenge one another's fish subsidies on the basis that each country maintains WTO inconsistent fish subsidies and that conflict would undermine trade reciprocity and liberalisation. It cannot be assumed that this *status quo* will remain for long in view of the Doha Round of trade negotiations and increasing pressure from stakeholders to take action on fish subsidies.

If such challenges to fish subsidies were to be made, the effect on developing country and least-developed economy livelihoods should not be underestimated. Even conflicts between developed country DWF nations can result in significant collateral damage to developing countries. Consider a situation that is analogous to the successful United States challenge of the Lomé Convention concerning preferential treatment for bananas.³¹ If another DWF nation were to challenge EU–ACP access agreements as illegal subsidies then the attendant loss of income to developing countries would be approximately €208 million per year.³² This figure would likely be considerably enhanced if all similar fishing access agreements worldwide were included. Consider another example in which developing country social support subsidies to support fishing communities were removed. The immediate impact on developing country livelihoods would be fairly obvious.

It is also recognised that there is a linkage between developed country subsidies – which maintain a developed country fisheries presence – and the use, by the target developing country government, of related currency to support sustainable livelihoods. These situations give rise to a double opportunity to remove the benefits of the subsidy through a legal challenge. One opportunity exists at the access agreement stage and the other at the domestic policy delivery stage. Neither of these scenarios is yet well understood.

It has been argued that, when compared to other government subsidies, fisheries subsidies are sufficiently unique and thus deserve their own legal rules under a new WTO Fisheries Subsidies Agreement.³³ However, pragmatism dictates that there would be much debate over

²⁹ *Ibid.*, Articles 27.10 and 27.11.

³⁰ *Ibid.*

³¹ *European Communities – Bananas*, Appellate Body Report, WT/DS27/AB/R, 25 September 1997.

³² See <www.europa.eu.int/comm/fisheries/doc_et_publ/factsheets/facts/en/pcp4_2.htm>. This number is derived from adding up the annual value of all existing bilateral agreements.

³³ See for example, D. Schorr, “Towards Rational Disciplines on Subsidies towards the Fisheries Sector: A Call for New International Rules and Mechanisms”, *WWF Discussion Paper* (Gland: WWF, 1998) at 164–6. The author of the present article has previously worked with David Schorr

the substance of such an agreement. As of April 2003, there were deep divisions in the WTO Negotiating Group on Rules over the way forward.³⁴ Though these differences are becoming less onerous, as a first step, it would appear to be pragmatic to seek an agreed interpretation of Subsidies Agreement Article 5 Rules on actionable subsidies so that the Agreement could be tested for its adequacy for disciplining fish subsidies as distortions of trade.

After all, a number of existing fish subsidies discussed in this paper are potentially actionable under Article 5.³⁵ Given a willing subsidy challenging Member, Article 5 action should be fairly straightforward in the sense that proof will be required of the existence of the subsidy and an adverse effect on the trade interests of another Member. The accompanying challenge, however, will be in proving adverse effects on production because subsidies have the subtly different effect of affecting access to the resource rather than production.³⁶ One means of taking this particular legal nicety on in a positive fashion is to seek an interpretation of “serious prejudice” pursuant to Articles 5(c) and 6(3) of the Agreement such that, where a subsidy affects a non-subsidising Members fleets ability to provide imports of fish or fish products into the subsidising Member’s markets, serious prejudice can be proven.³⁷

In the alternative, United States representatives at the WTO Negotiating Group on Rules have suggested that following the expiry of Article 6(1) of the Subsidies Agreement a category of actionable subsidy could be applied where subsidies exceed a certain value of production. In that case, the “serious prejudice” threshold will have been satisfied. The United States has also suggested the use of a rebuttable presumption if certain criteria were met (i.e., showing that the subsidy was not being used to fish in an overfished fishery or that the fishery was subject to effective restrictions on overcapacity or overfishing).³⁸ This approach is not unlike that of Article 6 of the Subsidies Agreement.

If dispute settlement is ineffective in this regard, then there will be a cogent reason for seeking greater reform measures for fish subsidies in the Doha Round. However, with respect to dispute settlement as a lone route much patience will be required. First, it cannot be guaranteed, or even expected, that a challenge will be made, so as to initiate the dispute settlement processes. Furthermore, even if invoked, dispute settlement processes can often leave much left unsaid, in legal and policy terms particularly as a body of case law would have to be developed in order to satisfactorily address the myriad of fish subsidies that might give

in developing the environmental strategy for advancing trade-related environmental measures to be addressed in a WTO context (the Merck Foundation, Rockefeller Foundation, German Marshall Fund and Ford Foundation) as part of a joint FIELD/NRDC Project on Trade and Environment in the Post-Uruguay Round conducted in association with James Cameron, Steve Charnovitz and Justin Ward.

³⁴ “Fisheries Subsidies: Deep Divisions Persist in the WTO”, *Bridges BioRes*, Vol. 3, No. 6 (2003).

³⁵ D. Schorr, *supra* n. 33; D. Schorr, “Fisheries Subsidies and the WTO”, in G.P. Sampson and W.B. Chambers (eds) *Trade and Environment and the Millennium* (Tokyo: United Nations University Press, 1999) at 188.

³⁶ *Communication from Chile, Possible Approaches to Improved Disciplines on Fisheries Subsidies*, TN/RL/W/115 at 1–2; *Communication from the USA, Possible Approaches to Improved Disciplines on Fisheries Subsidies*, TN/RL/W/77 at 2.

³⁷ See GATT Article XVI which provides such a definition of “serious prejudice”. This reasoning is apparent in S. Chang, “WTO Disciplines on Fisheries Subsidies: A Historic Step towards Sustainability”, *Journal of International Economic Law* 6(4) (2003) at 884–5.

³⁸ *Communication from the USA, Possible Approaches to Improved Disciplines on Fisheries Subsidies*, TN/RL/W/77 at 2.

rise to “serious prejudice”. As well, subsidies will likely go unchallenged until new rules are agreed and come into force. Thus, an “agreed interpretation” approach might usefully support evolving litigation and its outcomes.

The definition of “subsidy” applied throughout the rest of this paper is not completely consistent with the WTO Subsidies Agreement definition. It is accepted that subsidies include financial benefits derived from government (or other public body) action within a territory which confer an economic benefit on the recipient.³⁹ This subtle distinction reflects the WTO Agreement test for dispute settlement action, which allows that the nullification or impairment of a trade benefit can derive from benefits received by a recipient which are not directly based on a government financial contribution. For example, the failure to collect resource rents can radically affect the sustainability of a resource at the same time as it confers competitive advantages to domestic fleets assuming that they are dominant within the fishery. Such indirect subsidies play an important part in the fisheries sector.

Other applicable international instruments

The International Law of the Sea

The United Nations Convention on the Law of the Sea (UNCLOS), which entered into force in 1994, established an internationally recognised legal framework for fisheries accepted and applied by the majority of countries. In general, UNCLOS establishes a comprehensive legal regime for the seas and oceans (including defining the scope of and regimes for territorial seas, exclusive economic zones, the continental shelf and the high seas), and contains provisions for the conservation and management of their living and non-living resources, for the protection and preservation of the marine environment and measures to prevent, reduce and control marine pollution. It also attempts to provide for the establishment of conservation measures beyond the 200-mile EEZ for fisheries resources exploited on the high seas, although these provisions are largely inadequate and have not controlled high seas fishing. Insofar as fishing is concerned generally, many countries have adopted the principles of this Convention within national legislation and any discussion on matters affecting fisheries must therefore have regard to it.

The international community has more recently sought to address high seas fishing through the United Nations Agreement on Straddling and Highly Migratory Fish Stocks (UN Fish Stocks Agreement).⁴⁰ The latter type of stocks range extensively across oceans and are fished in potentially several EEZs and on the high seas (e.g., many tuna resources), while the former have a less extensive range but occur both within and beyond a country’s EEZ and may occur in the EEZ of more than one country. This Agreement is essentially an extension of UNCLOS, drawing significantly on its prescribed framework. It entered into force on 11 December 2001.

³⁹ Nullification and impairment arguments are often raised in international trade case law but are not generally much discussed. This is owed in part to a desire to focus on the analysis of breaches of WTO rules. Where such breaches are found, they can be taken to breach the rights of WTO Members, thus obviating the necessity of making a finding as to the nullification and impairment of benefits.

⁴⁰ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 December 1995, (1995) 34 *ILM* 1542. The agreement does not of course apply to all types of high seas fishing.

The UN Fish Stocks Agreement is augmented by a number of other agreements, including the 1993 FAO Compliance Agreement, which entered into force in 2003 and outlines the obligations of flag States whose vessels fish on the high seas, and a series of regional agreements designed to implement the Fish Stocks Agreement.⁴¹ Embodied in this second generation of international legal frameworks are two other important principles, the use of the precautionary approach⁴² and the enhanced role that regional organisations should play in the management of high seas fisheries. Regional organisations are recognised as important bodies to promote the management of highly migratory and straddling fish stocks. Their formation and role are outlined in the Fish Stocks Agreement and supported in the other instruments.

In addition, the international regime for fisheries is supplemented by various non-binding instruments, such as the 1992 Cancún Declaration on Responsible Fishing,⁴³ which sought to develop an internationally accepted code of conduct for high seas fishing operations, the FAO Code of Conduct (discussed below) and the Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security, agreed in Kyoto on 9 December 1995. The latter recognises the global importance of the role of fisheries in providing high quality protein for human consumption and provides an Action Plan which lists 10 immediate actions that should be taken either directly or in cooperation with other States, or through the FAO, to improve fisheries management worldwide with the aim of improving the prospects of the contribution of fish to the global requirement for protein for human consumption.

The FAO Code of Conduct for Responsible Fisheries

The FAO Code of Conduct for Responsible Fisheries, adopted by the FAO Conference on 31 October 1995, is a non-binding instrument which sets out principles and international standards of behaviour for responsible practices designed to ensure effective conservation, management and development of living aquatic resources, with due respect to the ecosystem and biodiversity. It also recognises the nutritional, economic, social, environmental and cultural importance of fisheries, as well as the interests of stakeholders in the fishery sector, from fishers through to consumers.

Article 5 of the Code elaborates on the special requirements of developing countries and small island developing States. It recognises their need for assistance in implementing the Code and seeks to mobilise international technical cooperation for this purpose. The FAO has prepared and submitted to donors an Inter-regional Programme of Assistance to Developing Countries for the Implementation of the Code of Conduct for Responsible Fisheries. This programme covers 10 specific areas of assistance (Annexes or sub-programmes), considered to be of crucial importance to developing countries as follows:

⁴¹ For example, the agreements establishing the South-East Atlantic Fisheries Organisation (SEAFO) and the Western and Central Pacific Fisheries Commission (WCPFC).

⁴² Principle 15 of the 1992 Rio Declaration states that: *In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.* The FAO “Guidelines on the Precautionary Approach to Capture Fisheries and Species Introductions” propose a definition of the precautionary approach to fisheries and an elaboration of the burden of proof: *FAO Fisheries Technical paper 350* (Rome: FAO, 1995).

⁴³ Later embodied in the FAO Code of Conduct for Responsible Fishing (see Section 2.1.3).

- implementation of the Compliance Agreement;
- upgrading of capabilities for reporting on fisheries statistics;
- upgrading capabilities in monitoring, control and surveillance;
- promotion of responsible fishing operations;
- upgrading marine resource survey capabilities;
- improving the provision of scientific advice for fisheries management;
- fisheries policy, planning and management;
- developing and implementing fishing fleet restructuring policies;
- implementation of responsible post-harvest practices and trade; and
- umbrella support to non-governmental organisations.

Articles 7 to 12 of the Code cover the themes of fisheries management, fishing operations, aquaculture development, integration of fisheries into coastal area management, post-harvest practices and trade and fisheries research. Further to the World Summit on Sustainable Development (WSSD) (Johannesburg, 2002) Article 31 of the agreed WSSD “Plan of Implementation” incorporates implementation of the FAO Code of Conduct as a key priority in fisheries management.⁴⁴

In addition to providing its good offices in relation to implementation of the Code, the FAO has also established, within the context of the Code, an “Expert Consultation on Identifying, Assessing and Reporting on Subsidies in the Fishing Industry”. It has developed draft Guidelines on the subject, which will be supplemented by work on the long-term effects of subsidies, resource pricing and the effects of government inaction.⁴⁵

European Community law and policy

As briefly mentioned, the fisheries sector is represented within a number of international agreements and other instruments to most of which the EU is either a party or has otherwise pledged to uphold. These measures are implemented in a raft of enacting and establishing legislation that governs the actions of the Community, adopted under the provisions of the EC Treaty concerned with the CFP (Articles 32–38). In the general context of development, Articles 177 and 178 of the EC Treaty apply. Specifically, under Article 178 consideration must be given to the objectives of development cooperation in the policies which are likely to affect developing countries, which includes fisheries, while Article 177 sets out the general parameters of development policy, which include a commitment to assist in the social and economic development of developing countries and to abide by agreements made through the UN and other competent international organisations.

With respect specifically to fisheries and development, the Cotonou Agreement (the successor to the Lomé Conventions) – which is the agreement which sets out the framework for EU–ACP development cooperation – addresses fishery agreements both in the general context of

⁴⁴ World Summit on Sustainable Development, Plan of Implementation, reproduced at <www.un.org/esa/sustdev>; see B. Satia, “The World Summit on Sustainable Development and Fisheries”, *International Fisheries Law and Policy Review* (Special Issue) 11 (2003).

⁴⁵ FAO, “Report of Expert Consultation on Identifying, Assessing and Reporting on Subsidies in the Fishing Industry”, *FAO Fisheries Report No. 698* (Rome: FAO, 2003); see also “Briefly Noted” (Brief of international developments) in *International Fisheries Law and Policy Review* (Special Issue) 62 (2003), at 65; and *Food and Agriculture Organisation International Plan of Action for the Management of Fishing Capacity* (23rd Session FAO Committee on Fisheries: Rome, 1999).

cooperation and specifically.⁴⁶ Thus, more generally, Article 12 of the Agreement calls for coherence between Community development policies and other policies (e.g., fisheries policy),⁴⁷ while Article 32(1) promotes specific measures and schemes aimed, *inter alia*, at sustainable management of fisheries resources.⁴⁸ With regard to fisheries agreements specifically, Article 53(1) of the Agreement provides that Parties have indicated their willingness to negotiate fishery agreements aimed at guaranteeing sustainable and mutually satisfactory conditions for fishing activities in the ACP States. Article 53(2) of the Agreement codifies reciprocal non-discrimination between the EU and ACP States in relation to bilateral fisheries agreements/reciprocal fishing arrangements.

There are a number of contrasting features between the Cotonou Agreement and the expired Lomé Convention's (IV) legal disciplines. With respect specifically to fisheries, a precise commitment was made through the Lomé Convention (IV). Title III of Lomé entitled "Development of Fisheries" provided eleven articles: Articles 58–63 defined the objectives and mechanisms of EU fisheries development policy with regard to ACP countries, whilst Articles 64–68 mainly related to bilateral fishery agreement policy with ACP States. For instance, the major areas to be supported by financial and technical assistance to develop the capacity for exploitation of the fishery resources of ACP States were specifically articulated in Article 59 as follows:

- improve knowledge of the fisheries environment and its resources;
- increase the means of protecting fishery resources and monitoring their rational exploitation;
- increase the involvement of the ACP States in the exploitation of deep-sea fishery resources within the EEZ;
- encourage the rational exploitation of the fishery resources of the ACP States and the resources of the high seas in which the ACP States and the Community share interest;
- increase the contribution of fisheries to industrial development by increasing catches, output, processing and exports; and
- increase the contribution of fisheries, including aquaculture, non-industrial fishing and inland fisheries to rural development by giving importance to the role they play in strengthening food security, improving nutrition and the social and economic conditions of the communities concerned. This implies, *inter alia*, a recognition of and support for women's work at the post-harvest stage and in the marketing of fish.

These provisions have been removed in favour of the more compact Article 53 of the Cotonou Agreement. Its limited nature suggests that matters of detail are to be negotiated and drafted in each if the individual bilateral agreements (as has been the case to date). Though Article 53 articulates a commitment to "sustainable fisheries conditions" the concern remains that development objectives in relation to poverty remediation and the welfare of socio-economically disadvantaged ACP State inhabitants may not be paramount *vis-à-vis* the economic interests of EU fishing fleets. Still, the Cotonou Agreement objectives have required

⁴⁶ Partnership Agreement between the members of the ACP States of the one part, and the European Community and its Member States of the other part, signed in Cotonou on 23 June 2000, [2000] OJEC L 317/3. Entry into force, 1 April 2003.

⁴⁷ Consultations are meant to take place, pursuant to Article 96 of the Agreement, where Community policy and implementation effects on the ACP state give rise to concerns on behalf of the ACP State.

⁴⁸ *Ibid.*, Article 32(1)(c).

that the principles of sustainable management of natural resources (e.g., fisheries) and the environment shall be applied at every level of the EU–ACP partnership.⁴⁹ Within the fisheries element of the Lomé Convention, there was no mention of “sustainable” exploitation or conservation (or a recognition of biodiversity issues), which are features of the 1992 Convention on Biological Diversity, to which the EU is a party, and the UN Fish Stocks Agreement (and several other agreements mentioned above). Though there is discussion in the Cotonou Agreement of preparing ACP States for the market economy (which may mean that market forces subordinate government “development” – i.e., poverty alleviation, etc. – policy), the new safeguards related to policy coherence and sustainability as they apply to fisheries suggest that, if implementation matches legislative intention, the Cotonou Agreement will make it more difficult (than the Lomé Convention) for the EU to maintain subsidies that contribute to overfishing, overcapacity and related unsustainable fisheries management practices. Hence, it constitutes a useful step forward for sustainable fisheries management even though doubts remain, among some developing countries, about the wisdom of concluding a bilateral agreement with the EU in certain circumstances.⁵⁰

One final key element of Lomé (IV) pertaining to fisheries was Article 168, which gave exemptions to customs duties for fish products from ACP countries. This assumed they comply with EU standards. In recent years, some 60% of fish imports to the EU have come from ACP countries, with a value exceeding €1 million per year. It is estimated that accumulated waived import duties have exceeded €100 million. Though the system of non-reciprocal trade preferences from which the ACP States have benefited are to be phased out, this process will take place over a transitional period of up to twelve years and it should be noted that the pressure of WTO Agreement compliance has been a key source for this reform.⁵¹ The removal of this most important benefit will cause ACP States to re-evaluate their negotiating demands in connection with future EU–ACP Agreements. This has already been an important issue in the context of the EU–ACP Agreement with South Africa.⁵²

Finally, the EU has guidelines for the role of fisheries in development at the implementation level through the older but still relevant policy document, “Basic Principles, Fisheries” (1990).⁵³ The goal states that:

“Fisheries projects should clearly contribute to broader programme or sector goals defined in national or regional indicative programmes or as part of an integrated strategy. A consideration of “alternative strategies” notes that the artisanal sector provides protein whilst industrial

⁴⁹ *Ibid.*, Article 1.

⁵⁰ For example see, “Namibia and the EU gone fishing”, in *The Namibia Economist* (Namibia: Namibia Economist, 2001), at 1. According to documents made available at a workshop in Namibia, European fishing interests are likely to insist that any future tariff preferences granted Namibian fish products be linked to the conclusion of an EU fisheries access agreement. Namibia has in the past resisted all EU pressures to conclude a fisheries agreement with the EU. While it is true that Namibia represents an unusual example of a well-developed sustainable management regime that is quite capable of addressing high tech players, one cannot help but remark that resources sustainability, subsidy and enlightened economic self-interest issues are at the heart of Namibia’s desire to remain autonomous *vis-à-vis* the EU–ACP bilateral agreement model.

⁵¹ See the overview at: <europa.eu.int/scadplus/leg/en/lvb/r12101.htm>.

⁵² “Namibia and the EU gone fishing”, *supra* n. 50. Tariff concessions were a key, if not the most important, issue in the EU–South Africa negotiations.

⁵³ More recently, there is some indication of development objectives in the European Commission’s “Roadmap” Communication accompanying the Common Fisheries Policy reforms (COM(2002) 181) and also another Communication specifically on poverty – COM(2000) 724.

fisheries increase revenue, that aquaculture is to be considered in medium and long term development perspectives, that part-time fishers should be taken into account and, most significantly, that “integrated” rural development projects relating to fisheries might better serve such interests than projects concerned solely with fisheries.”

Emerging regulatory and related policy directions

WTO deliberations

There has been little progress to date with respect to the policy or regulatory integration of the disciplines inherent in the legislative instruments analysed above as they apply to subsidies. However, there is room for optimism as WTO Members have informally agreed to examine the role that subsidies play in the fisheries sector. The Doha Round is beginning to feature discussions in this subject area. Unfortunately, if agricultural subsidies are to be taken as a GATT/WTO precedent for the progress to be made in disciplining fisheries sector subsidies, then progress will be incremental at best. This is explained by a number of factors. Fisheries subsidies have been a relatively permanent fixture of fisheries policy in most WTO Member nations. As such, vested interests across a range of stakeholder groups will seek to lobby heavily against immediate reform to phase out any subsidies. Governments with an institutional interest in stopping subsidies have been relatively slow in organising pressure for the removal of subsidies. As well, third parties (e.g., environmental and consumer groups) may have insufficient political capital to influence legislators, including key WTO Members, to take a tough stand on subsidies.

One additional explanation for the tentative pace of discussions to date rests with the observation that research into the economic and environmental effects of subsidies is embryonic in nature. Much of the data has been anecdotal and without sufficient conclusiveness to allow positive findings about the negative impacts of subsidies. As well, developing countries may have the view that any new WTO disciplines will insufficiently protect their subsidies regimes where they have a positive impact on development policy or sustainable livelihoods.

Nevertheless, WTO Members have used the WTO Committee on Trade and Environment to make policy pronouncements on the need to address subsidy and environmental linkages. The same development has occurred at the OECD and in the WTO Negotiating Group on Rules. What remains to be seen is whether WTO Members will use the vehicle of an agreed interpretation or Agreement amending process to further discipline subsidies. As it stands, an amendment to the Subsidies Agreement would not appear to be required. An agreed interpretation on the application of the Subsidies Agreement to the most egregious types of fisheries subsidies may be a starting point. However, it is felt that this will more likely happen within the WTO Committee system (i.e., the Negotiating Group on Rules) rather than through negotiation of a specific Fish Subsidies Agreement in the Doha Round negotiations themselves as it has seldom been the case that a Trade Round has sought to discipline a specific sectoral activity of this kind.

With these thoughts in mind it is encouraging to note that a healthy discussion and debate on fish subsidies has begun to occur within the WTO Negotiating Group on Rules over the past

few years.⁵⁴ Members that have been most active in the debate have been Argentina, Canada, Chile, Iceland, New Zealand, Norway, Peru, the European Union and the United States. The positions that have been tabled have varied in their recommendations with submissions arising over the following: the need to resolve the vagaries of the relatively untried Subsidies Agreement through legal interpretation in WTO dispute settlement fora; negotiation of an agreed interpretation of the Subsidies Agreement as it pertains specifically to fish subsidies; and negotiation of a specific WTO Agreement on Fish Subsidies.

The United States has taken the view that subsidies which promote overcapacity or overfishing should be prohibited (“red light”) subsidies.⁵⁵ It has also proposed a “dark amber” category based on the expired Article 6.1 of the Subsidies Agreement.⁵⁶ Though specific examples or a list are not provided, this category would apply to circumstances in which a given subsidy that appears to encourage overcapacity, overfishing or constitutes a trade barrier would have a reverse burden of proof applied (not unlike the precautionary principle reverse onus) in which the subsidising Member would have to prove otherwise.⁵⁷ Finally, the United States has sought improved notification of subsidy programmes and Rules Group institutional support for fisheries management and fisheries science from the FAO and other relevant stakeholders.⁵⁸

Following the *United States Communication*, the Government of Chile’s proposal has added to the United States “red category” list by including a ban on fish subsidies that are “directly geared towards lowering costs, increasing revenues or raising production” (by enhancing capacity).⁵⁹ Examples would include subsidies to: transfer a country’s ships for operation on the high seas to the local waters of another country (e.g., an ACP State); purchase new or used ships; assist in modernising an existing fleet; reduce production costs; positively discriminate in taxation terms; and, positively discriminate in access to credit.⁶⁰ “Amber box” subsidies would include all other accredited and notified subsidies that do not cause injury to other Members. Social subsidies for small-scale fisheries and coastal communities as well as sustainable management subsidies serve as examples of the amber category proposed by the Government of Chile.⁶¹ The Governments of Argentina, Iceland, New Zealand, Norway and Peru have supported the Government of Chile’s proposal.⁶²

The *European Communities’ Submission to the Negotiating Group on Rules* follows recent reforms to the Common Fisheries Policy.⁶³ In the “red box” category, the EU has included subsidies for fleet renewal and for the permanent transfer of fishing vessels to third countries.⁶⁴ A “green box” category of permissible subsidies would include subsidies to reduce

⁵⁴ This debate is summarised in S. Chang, “WTO Disciplines on Fisheries Subsidies: A Historic Step towards Sustainability”, *Journal of International Economic Law*, 6: 880 (2003).

⁵⁵ *Communication from the United States*, Negotiating Group on Rules, (TN/RL/W/77), at 2.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*, 3.

⁵⁹ *Communication from Chile*, Negotiating Group on Rules, (TN/RL/W/115), 2.

⁶⁰ *Ibid.*

⁶¹ *Ibid.*, 3.

⁶² “New WTO Proposal from Chile on Fisheries Subsidies”, *Bridges Trade BioRes*, Vol. 3, No. 12 (2003).

⁶³ *European Communities’ Submission to the Negotiating Group on Rules*, Negotiating Group on Rules, (TN/RL/W/82), 1.

⁶⁴ *Ibid.*, 2–3.

fishing capacity and for mitigating the adverse social and economic effects of re-structuring the fisheries sector. Examples of “green box” subsidies would include those for retraining and early retirement, limited subsidies for fishing vessel modernisation (without increasing capacity) for social or environmental reasons and subsidies for scrapping vessels.⁶⁵ The other nations reported hereupon have all stated that the EU position does not go far enough.⁶⁶

What is encouraging about the communications to date is that they acknowledge the adverse impacts of some fisheries subsidies and the need to discipline them in a more direct manner. Now that these issues are firmly on the table it would appear to be impossible that no further progress will be made. As stated above, a logical way forward in this debate is to agree the content of the “red box” of prohibited subsidies through an interpretative note. In the context of the EU–ACP agreements it is noteworthy that certain types of socially beneficial subsidies for coastal communities and artisanal fishers are on the table. However, it is regrettable that the EU has not taken sufficient steps to completely curb overfishing and overcapacity in ACP waters. This is symptomatic of existing bilateral agreements which must be honoured. It may be that the Subsidies Agreement Article 27 special and differential treatment provisions should also be addressed/interpreted as a means for addressing the unique dynamics and social and sustainability needs of the EU–ACP Agreements.

WTO law concerning trade distortions

Of course, there is a larger international trade law context related to trade distortions and fisheries regulation which requires some elucidation if the developing and least-developed country agenda of fisheries policy and development policy coherence related to trade policy is to succeed in the Doha Round. From an international trade perspective, fisheries management rules have had a late history of trade disputes concerning non-discrimination and non-tariff barriers as they apply to fisheries management measures. Examples of these disputes include: *Australia-Salmon* (1998); *Shrimp-Turtles* (1998); *Tuna-Dolphin No 2* (1994); *Tuna-Dolphin No 1* (1991); *Canadian-Lobster* (1990); *Salmon-Herring* (1989); and, *Canadian-Tuna* (1982).⁶⁷ The experience of these disputes suggests that trade barriers can attend fisheries management regimes. To avoid these conflicts (which can be directed at developing countries with significant trade losses) the design and implementation of national fisheries management regimes must be unscrupulously fair to all concerned. WTO discipline compliance should be a minimum condition of acceptability for such schemes, regardless of whether actual disputes erupt between WTO Members. In this regard, WTO Members must rigorously police fisheries management regimes that give rise to trade barriers when called upon to do so through the WTO Committee system.

Fisheries regulations should be designed and implemented in a manner that is consistent with the principle of non-discrimination as defined by GATT/WTO rules and should not give rise to quantitative trade restrictions. Voluntary or non-government schemes, including the buying

⁶⁵ *Ibid.*, 3.

⁶⁶ “New WTO Proposal from Chile on Fisheries Subsidies”, *supra*, n. 62.

⁶⁷ *Australia – Measures Affecting Importation of Salmon (Australia-Salmon)*, WT/DS18/AB/R; *United States – Import Provisions of Certain Shrimp and Shrimp Products (Shrimp-Turtles)*, WT/DS58/R, WT/DS58/AB/R; *United States – Restrictions on Imports of Tuna (Tuna Dolphins Nos 1 and 2)*, at GATT, BISD, 39th Supp; *Lobster from Canada (Lobster)*, US–Canada Binational Panel Final Report, May 25, 1990; *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon (Salmon-Herring)*, (L/6268), GATT, 35th Supp. BISD 98; *United States—Prohibition of Imports of Tuna and Tuna Products from Canada (Canadian-Tuna)*, BISD 29S/91.

practice rules of firms, should also comply with the TBT Code of Good Practice⁶⁸ in order to protect against quantitative trade restrictions and other barriers to trade that would have an adverse effect on developing countries.

With regard to the quantitative trade restrictions and discriminatory practices of trading partners, WTO dispute settlement disciplines have codified the rule of law such that (unlike the pre-WTO system) dispute settlement outcomes are now binding no matter how powerful the developed country adversary might be. As well, Articles I, III and XI of the GATT/WTO rules have been sufficiently litigated to allow for reliable predictions of dispute settlement outcomes. Hence, with respect to the trade restrictions, developing countries (that are WTO Members) should consider taking a more proactive role to protect their domestic fishing interests. This should be done in the first instance through negotiation and alternative dispute settlement procedures, using the “good offices” of the WTO. In the last instance, a Dispute Settlement Panel hearing should be seen as a realistic option. Those developing countries and least developed countries that are not WTO Members should also seek membership forthwith.

Owing to their mandate, international trade negotiations have tended to have little regard for policy goals other than maximisation of income from trading activities. The GATT Uruguay Round of trade negotiations signalled a change in course. For instance, it established the Trade and Environment Committee with the express purpose of integrating trade and environment policy considerations. While the results of these deliberations may lead to greater insulation of developed country markets from developing country goods, recognition of the need for policy coherence is an important advance in WTO institutional ideology. The same sort of committee should be established in order to evaluate the (non-)coherence of WTO rules with development assistance policy. To support such an initiative developing countries could form a bloc in order to provide unified negotiating positions with better prospects so that these positions will be expressed in WTO amendments in their favour. In this way, developing countries will have a greater opportunity to seek the merger of WTO disciplines and development assistance policy. EU support for the development of a developing country bloc approach to WTO negotiations should be considered.

In relation to these arguments, a number of regulatory and policy recommendations for the EU’s evolving Doha Round negotiating position are illustrated below:

- reduction of trade barriers that continue to restrict access for developing country goods to developed country markets on a non-reciprocal basis;

⁶⁸ The Technical Barriers to Trade Agreement’s Code of Good Practice for the Preparation, Adoption and Application of Standards (Annex 3 of the TBT Agreement). As the membership of the WTO comprises national governments (or intergovernmental bodies to whom they have delegated representative authority, e.g., the European Union), these are the legal entities which have assumed the rights and obligations consistent with WTO membership. As such, non-governmental bodies (e.g., the private sector, environmental NGOs, NGO-Industry Partnership Schemes) are not automatically subject to WTO rules unless otherwise specified. However, institutions which coordinate non-government schemes may be likened to standard setting bodies of the kind referred to in the Annex 3 Code. The Code is open to acceptance by any standardising body (e.g., a fisheries-related body). It is recognised that WTO Members must take all reasonable measures to ensure the compliance of voluntary programmes with the Code and Central Government Body standard-setting procedures (e.g., all legal means reasonably possible) (Articles 4.1 and 8.1 of the TBT Agreement).

- negotiation of concessions (e.g., in the Technical Barriers to Trade Agreement) such that the generalised system of preferences for developing countries will be enhanced;
- developing country governments should have their nationals equally represented on dispute settlement panels;
- tariff snapback provisions should not be applied in nullification and impairment of benefit actions against developing countries such that their development policies or external development aid programmes will be undermined;
- any re-negotiation of the WTO Subsidies Agreement should not result in the application of subsidy rules in a manner that removes subsidies which contribute to developing country socio-economic goals; and
- fisheries product labelling and certification programmes, regardless of origin, should be consistent with WTO non-discrimination rules.

European Community developments

In summary, the various international fisheries instruments discussed above, such as the FAO Code of Conduct, although seeking to encourage the reduction of subsidies (or at least excess fishing capacity) are not designed to deal with the reduction of subsidies as there is no defined legal basis for doing so. Within EU law, Cotonou Agreement and EC Treaty amendments have not directly addressed fish subsidies nor is there an apparent intention that they will do so in the near future. The most promising developments in the EU apply to the formal recognition of the need to integrate environment and development considerations into other policy areas, including fisheries, and the (related) evolving relationship between the Fisheries and Environment Directorates General of the European Commission and the leadership role that the Development Directorate is taking in co-ordinating and advancing the coherence debate in the EU. The latter two developments provide real opportunities for the EU to take a leadership role in the global context to discipline subsidies through the vehicle of greater policy and regulatory coherence. A sign that this partnership has had value is in the new Common Fisheries Policy (CFP), adopted in late 2002, in which all Member States have agreed to phase out subsidies for the renewal of fishing vessels.⁶⁹

The CFP seeks to ensure the sustainable exploitation of fisheries resources both in its own internal and external fisheries activities and in the international trade in fish products.⁷⁰ Externally, this approach is to be reflected in both bilateral (e.g., EU-ACP Agreements) and regional sector policy dialogues. The partnership agreements (discussed below) that will be cemented in bilateral agreements are meant to form an important element of the revised CFP. The key elements of the revised CFP are summarised as: a clearer strategy for sustainable management of resources (recovery and management plans and targets, targets and harvesting rules, an ecosystem approach, improved scientific advice); a new fleet policy (fishing effort limitation where necessary, simpler rules for limiting fishing capacity, phasing out public aid); new procedures to improve enforcement (closer Member State co-operation, sanctions for poor

⁶⁹ For the new CFP see Council Regulations (EC) Nos. 2371/2002, 2369/2002 and 2370/2002. See also, “WTO: EU Takes Long-Awaited New Stance on Fisheries Subsidies”, *Bridges Trade BioRes*, Vol. 3, No. 9 (2003) at main page. For a fuller commentary on the CFP, see M. Nerheim, “The New Common Fisheries Policy (CFP): Towards Sustainable Management and a Profitable Fisheries Sector”, 1 *Eipascope* 32 (2004); and Briefly Noted, *supra* n. 45.

⁷⁰ For an overview, see European Commission, *The New Common Fisheries Policy*, <www.europa.eu.int/comm/fisheries/reform.international_en.htm>.

enforcement, greater autonomy for EU inspectors); and involvement of stakeholders (creation of regional advisory councils, right of initiative and consultation).⁷¹

Among these elements, some of the key implications for fisheries subsidies include a fleet and structural policy to come into force in 2005 in which public financing will no longer be used for new fishing vessels. This cap on capacity does not directly address the need to cut fishing effort by 30–60% as reported in the plan outlining CFP reform in May 2002.⁷² Thus control of vessel capacity and reduction of over-capacity remain as unfinished business. Fishing capacity needs to be reduced further and not at the expense of externalising fishing effort through EU–ACP access agreements. Finally, the problem of generating resource rent from the sustainable exploitation of fisheries resources continues to make the CFP uneconomic at a time when other countries are hoping to make their fisheries sector operate according to conventional economic principles.⁷³

Another encouraging sign that sustainability in fisheries management is a decided policy of the EU in relation to ACP States is evidenced in the *Communication from the Commission on an Integrated Framework for Fisheries Partnership Agreements (FPAs) with Third Countries*.⁷⁴ The FPAs are meant to address reforms to the “cash for access” structure of EU–ACP agreements by creating coherence between fisheries and development policy goals. Noting that, according to the analysis in this paper, such agreements are heavily subsidised, the adverse impacts on fish stocks and domestic livelihoods can be significant.⁷⁵ To the credit of the Commission, it does make the link between subsidies and the distortion of competition as well as the development of practices that offer fewer guarantees for the maintenance of a sustainable global fishing activity.⁷⁶ Interestingly, the *Communication* also makes the point that the departure of European Union vessels leads to their replacement by other vessels and so there is no decrease in the amount of fishing.⁷⁷ In supporting this assertion, it suggests that other fleets may be less willing to conform to global fisheries policy. This line of argumentation implies that subsidised EU fleets do not add to overfishing or overcapacity and that the sustainability of fisheries resources may even be adversely affected if EU vessels were to leave ACP waters. The *Communication* also claims that the financial contributions made by the EU by way of third country agreements should not be considered as a subsidy to European fishers.⁷⁸

The *Communication* suggests that the coherence principle must be strictly respected in a manner that is compatible with sustainable fishing.⁷⁹ Hence, in future, the implementation of FPAs must occur within the framework of the coastal State’s development policy and the sustainable development of its fisheries, taking account of: national fisheries policy; EU

⁷¹ M. Nerheim, *supra* n. 69, at 31.

⁷² *Ibid.*

⁷³ OECD, *The Costs of Managing Fisheries* (Paris: OECD, 2002); Nerheim, *supra* n. 69, at 35.

⁷⁴ *Communication from the Commission on an Integrated Framework for Fisheries Partnership Agreements with Third Countries*. COM(2002) 637 final.

⁷⁵ E. Nordberg, “Fisheries Partnership Agreements – Rebranding or a Real Step towards Sustainability?”, *WWF Discussion Paper* (Denmark: WWF, 2003), 1.

⁷⁶ COM(2002) 637 final; Commission Communication, *Action Plan with a view to eradicating illegal, unreported and unregulated fishing*, COM(2002) 180 final.

⁷⁷ COM(2002) 637 final, 5.

⁷⁸ *Ibid.*, 8.

⁷⁹ *Ibid.*

financial resources; scientific and technical assessments; conditions of access to and the share of surplus fisheries resources for distant water fishing fleets; environmental threats; a corresponding legal and institutional framework; synergies with regional fisheries policies; local authority contributions to responsible fishing within a viable industry; and, the concerns of civil society.

Provided that this implementation framework is applied then it will mark a significant departure from and improvement upon the “cash for access”-style third country agreements. Unfortunately, while the coherence objective is an important one,⁸⁰ as are the implementation principles listed above, analysis of the *Communication* does not reveal what specific measures will be implemented so that greater coherence will be achieved. Moreover, the subject of subsidies reform is only indirectly addressed. This leaves questions unresolved about curbing the impacts of subsidies on sustainable fisheries resource management in ACP States. Hence, an important litmus test for the de-coupling of potentially adverse fish subsidies from sustainable resource management will be applied over the extent to which financial contributions from the EU to the relevant ACP State are directly proportionate to the level and economic value of access by EU fleets.⁸¹

Subsidy categorisation⁸²: regulatory, economic and public policy dimensions

This sub-section of the paper provides an overview of the potential regulatory and related public policy and economic dimensions of different forms of subsidies in the fisheries sector.⁸³ It offers the context in which the resource and economic, regulatory and public policy effects on coastal countries of subsidies in countries with DWF fleets can be reviewed. One of the aspects of these subsidies is that as they effectively place limitations on access to shared resources it becomes difficult to identify damage to trade and market distortions due to impacts on price and loss of market share.⁸⁴ The proposed categorisation of subsidies is the one to be applied in analysing the impact of subsidies on sustainable livelihoods. It is illustrated below:

⁸⁰ A. Linard, “Greater Coherence for EU International Fisheries Agreements”, *The Courier ACP-EU*, No. 197 (1997), 1.

⁸¹ See Coalition for Fair Fisheries Arrangements, *Fisheries Partnership Agreements: Will They Be Fair?* (Brussels: WWF, 2003), 2. The coalition includes 8 NGOs (ICSF, Greenpeace International, WWF – EPO, CCFD, Entraide et Fraternité, CedePesca, Pechecops, IFBA and Eurostep).

⁸² For one approach to categorisation of fish subsidies see: Milazzo, *supra* n. 1, at footnote 136.

⁸³ For an alternative categorisation of fisheries subsidies types see the WTO Committee on Trade and Environment report on *GATT/WTO Rules on Subsidies and Aids Granted in the Fishing Industry*, WT/CTE/W/80, from para. 31.

⁸⁴ *Submission of the European Communities to the Negotiating Group on Rules – Fisheries Subsidies*, TN/RL/W/82 at 2–3; *Communication from Chile, Possible Approaches to Improved Disciplines on Fisheries Subsidies*, TN/RL/W/115, 2; *Communication from the USA, Possible Approaches to Improved Disciplines on Fisheries Subsidies*, TN/RL/W/77, 2.

Table 1: The categorisation of fish subsidies

Class of subsidy	Type of subsidy	Examples
Direct financial assistance	Input subsidy	Vessel construction or repair, fuel and fishing gear
	Factor subsidy	Capital grants, special capital allowances, training
Indirect financial assistance	Infrastructure subsidies	Port facilities, transport infrastructure, processing and storage facilities
	Regional/structural subsidies	Financial assistance for disadvantaged regions
“Environmental” subsidies	Non-payment of resource rents	No quota/licence fee system
	Subsidies for regulatory compliance	Financial support for purchase of less damaging gear
Price supports	Domestic price supports	Guaranteed prices, guaranteed purchase agreements
	Export subsidies	Price support for fish exports
Trade restrictions	Explicit trade restriction	Tariffs, quotas and voluntary export restraints
	Non-tariff barriers	Product standards, labels certification, customs laws
Targeted assistance for DWF fleets	Access agreements	Budgetary expenditures for all (or part) of compensation
	Joint ventures	Commercial support to encourage domestic fleet involvement in joint ventures

Fisheries-related subsidies

The categorisation of subsidies includes expenditures from government department budgets (whether they are departments with responsibilities for fisheries or otherwise), tax preferences, non-payment of resource rents and subsidies inherent in bilateral or multilateral access agreements between governments or between private fishing firms and governments. The categorisation is as follows:

Direct financial assistance

This covers all budgeted forms of financial assistance which are paid directly to the fleet and which have the potential to reduce costs of fishing effort. Such subsidies are usually directly borne by domestic taxpayers. Examples include both input subsidies (fuels, gear) and factor subsidies (capital and labour). By reducing costs, such subsidies will tend to result in greater fishing effort and reduce fish prices if trade is restricted.⁸⁵ There is no reason to expect this increased effort to take place exclusively in home waters. Indeed, the subsidies will provide incentives for the fleet to gain access to foreign EEZs. The effects will depend upon the precise form of implementation. Subsidies targeted at the high-seas tuna fleet will not have direct consequences for the demersal fleet fishing in home waters.

⁸⁵ Even if trade is not restricted, such subsidies will also reduce fish prices if the product is a non-tradable (e.g., due to perishability) or the domestic fleet is large (e.g., has non-trivial effects on world prices).

There are also more indirect international consequences. Such subsidies can also provide a means whereby governments can overturn comparative advantage, winning international market share despite relatively higher real costs of exploitation. Other countries with fishing fleets (industrial and artisanal) will lose market share, and may even lose part of their own domestic market. Overseas consumers may gain since such subsidies will tend to drive down world fish prices.

The Milazzo study provides preliminary evidence of budgeted subsidies directed at fleet assistance in developed countries. What remains is to analyse the relationship between such assistance and increases in fishing effort or capacity.

Fisheries department structural funds regulations that assist the fishing industry

Many countries provide direct financial assistance (grants) for vessel construction, modernisation and repair. According to Milazzo, shipbuilding is one of the most significantly subsidised industries in the world. Hence, it should be unsurprising that he quotes a figure of \$200 billion in global subsidies. These expenditures are, perhaps, the easiest form of subsidy to measure insofar as the level of public support is explicit. However, the consequences may differ widely. For instance, the effects of grants which displace private investment (e.g., investment which would have been undertaken anyway) will be much greater than grants which are not in the private interest of the fleet even with public support. Most grants fall between the two stools, but it is often surprising how low “take-up” is for some grants.

On the matter of “indirect” subsidies (including categories discussed in this sub-heading and, for example, shipbuilding subsidies), it should be recalled that proof of the subsidy is in the transfer of funds to fishers or the fishing operation who in turn gain a market advantage. A review of Article 1 of the Subsidies Agreement does not require that recipients and users of the subsidised funds must be one and the same party as long as the subsidy can be shown to have been received by the party that is taking advantage of the financial contribution.⁸⁶ Moreover, WTO case law already includes indirect subsidies as falling within the definition of subsidy.⁸⁷

Research and development or training assistance for industry

Government research and development finance or training assistance to industry would appear to contravene Article 1.1 of the Subsidies Agreement and yet it can act as a key means for the delivery of sustainable fisheries management regimes. This potential conflict is not adequately addressed in the WTO system.

Unbudgeted subsidies leading to preferential tax treatment or favourable lending policies

To the extent that subsidies such as loans and tax credits are targeted (e.g., regional development programmes, bank loans, tax incentives and preferences, loans for construction, repair, re-fitting of vessels), such subsidies will lower the opportunity cost of investment in the sector relative to other potential uses of scarce funds. In developing countries, a majority of subsidies granted appear to be in the form of loans and tax concessions. Evidence is scant on

⁸⁶ *United States – Softwood Lumber from Canada*, WT/DS236/R, from para. 7.60.

⁸⁷ *United States – Imposition of Countervailing Duties in Certain Hot-Rolled Lead and Bismuth Carbon Steel Products*, WT/DS138/R (Panel Report) and WT/DS 138/AB/R (Appellate Body) from 69.

the size of these types of subsidies because much of it would be confidential as between the parties. Banking institutions will not likely reveal the details of such contracts nor will they likely indicate which loans have been good investments and which have not. The calculations become more difficult in centrally planned economies where state ownership does not always clearly differentiate the relationship between owner and lender. Still in the case studies conducted by Milazzo (including the developing country findings) there are uniform findings on the extent to which subsidised lending is a common phenomenon. The same applies to tax concessions. Total estimates by Milazzo add up to \$6 billion (\$5 billion in lending practices and \$1 billion in tax subsidies).

Indirect financial assistance

This category covers those forms of subsidies which are budgeted and which have the potential to affect fishing costs, but which are not paid directly to the fleet. This would include subsidies for research and development, regional/structural subsidies and subsidies to upstream (e.g., vessel construction) and downstream (e.g., transport infrastructure) sectors. Whether the benefits are borne by the fleet depends upon the precise form of implementation and market structure. For instance, if the output of the upstream sector is tradable, the subsidies will be realised as windfall rents to the sector and not reduced costs for the fleet.

Assuming that these indirect subsidies do reduce the costs of fishing effort, such subsidies will also increase fishing effort (at home, in foreign EEZs and on the high seas) and drive down fish prices (under the conditions discussed above). Internationally, the effects will also be similar, undermining the market opportunities of fleets in foreign and domestic markets, but potentially benefiting consumers.

Subsidies coming from other departmental budgets (e.g., for general infrastructure)

Fisheries infrastructure expenditure, such as that devoted to the planning, approval, development and maintenance of ports, docking areas, landing infrastructure, unloading facilities, weigh stations, and sampling and monitoring facilities all tend to be paid for from public monies. Where such expenditures have no other community or commercial use they represent a straight subsidy to the industry. The same applies to ship construction subsidies including tendering processes which feature the grant of contracts to national firms only (e.g., as tends to be the policy of some EU Member State governments though, strictly speaking, it may be in violation of EC competition law). The argument can be made that these forms of subsidy indirectly promote excessive fishing capacity and effort. To prove the argument, one would have to show that non-government financial sources would not be sufficient to cover these expenditures.

Regional assistance regulations that affect disadvantaged regions or communities

Under Article 8(b) of the Subsidies Agreement, the conditions that apply to regional assistance are rather narrow. This prompts an investigation at the case study level of the types of regional assistance programmes that feature subsidies. In particular, those directed at fishing communities, especially in developing countries, tend to fall outside the “general framework of regional development policy” in a “clearly contiguous geographical area”. Moreover, as it is more common in federal systems found in developing countries that their sub-national regional assistance programmes are not harmonised nationally, there is the concern that subsidies appearing under regional assistance programmes would run afoul of these regulations. The

same would apply to social assistance transfer payments directed specifically at local fishing sectors.

Environmental and resource rent subsidies

Like all natural resources there is a rent associated with the exploitation of fish stocks. This rent is equal to the scarcity value of the resource above and beyond those financial costs incurred in its exploitation, as well as “quasi-rents” attributable to imperfectly mobile conventional factor inputs (e.g., human and physical capital). If this rent is not charged (e.g., through licence fees or catch quotas) then this can be construed as a subsidy to the fleet, and exploitation will be excessive.⁸⁸ Relaxed enforcement may also be an example of foregone rent.

There is no explicit WTO case law on the subject, but it has been a source of discussion for at least ten years.⁸⁹ While the argument is highly plausible, disciplining such subsidies is notoriously difficult because establishing the right standards of enforcement or the right amount of resource rent is notoriously difficult and will even vary from one fishery to the next within national jurisdictions. Internationally agreed standards also give rise to the problem of free ridership. Moreover, it is clear that enforcement standards do not fall within the Subsidies Agreement Article 1 definition of subsidy. It may be of assistance to review the case of *United States – Tax Treatment for Foreign Sales Corporations*, which attempts to illuminate the concept of financial contributions.⁹⁰ Perhaps if Article 1(c), which broadly refers to foregone revenue, is invoked then on the basis of the serious prejudice argumentation⁹¹ the question of foregone enforcement of standards has a greater, though still admittedly narrow, opportunity for adjudication. For this reason, a sustainable fisheries management regime should feature some form of cost recovery for these rents.

Another potential form of “environmental” subsidy arises from “budgeted” expenditures to help fleets in complying with environmental and health regulations. For instance, when gear restrictions are introduced to reduce by-catch, or hygiene standards are tightened, many governments provide assistance to the fleet and processing industries in order to mitigate some of the costs of compliance. Relative to a situation in which no assistance is provided to the fleet, this should reduce fishing and processing costs, with consequences for fishing effort, prices, and trade.

Resource rent policies or regulations (e.g., management, science, conservation, monitoring, enforcement, and full costs of the resource)

⁸⁸ Even if quotas are distributed freely to fleets (e.g., through a lottery), as long as they are transferable there will still be an opportunity cost associated with their use so they should have the same consequences as an equivalent system based on licence fees.

⁸⁹ Robert Repetto gives one of the first and most authoritative accounts of trade-distorting subsidies that are damaging to the environment and other resources in R. Repetto, *Trade and Sustainable Development* (Geneva: UNEP, 1994).

⁹⁰ *United States Tax Treatment for Foreign Sales Corporations*, WT/DS/108/R (Panel Report) and WT/DS/108/AB/R, AB Report).

⁹¹ See also the 1979 GATT Panel Report on *European Communities – Refunds on Exports of Sugar*, L/4833 (adopted, 1979) and *European Communities – Refunds on Exports of Sugar* L/5011 (adopted, 1980) which establishes that serious prejudice does not require quantification of the prejudice in exact terms.

The Milazzo study leaves an important gap concerning resource rents in that it does not examine this issue with respect to developing countries. When I discuss resource rents, essentially I am referring to rents that attach to the sustainable management and administration of fisheries resources. An economist's perspective on these foregone costs is that they should be subject to a user fee system.

Despite not involving direct budgetary expenditures, the trade and price effects of non-payment of resource rents will be the same as under other types of subsidies, although the "cost" will not be borne by taxpayers. However, unlike the other cases, the increased effort will necessarily take place in home waters. Moreover, assuming that rents are not charged in a discriminatory fashion (i.e., foreign fleets and domestic fleets are charged equal licence fees) it will encourage foreign fleets to try and gain access to domestic waters. This is quite different from direct forms of financial assistance. Thus, non-payment of resource rents will result in increased fishing effort in home waters and will relieve pressure on foreign EEZs.

This is a widespread phenomenon. Curiously, when compared with other natural resource extraction sectors, the fisheries sector is the exception rather than the rule as regards rent recovery. This occurs despite the existence of a legal right by States to establish charging systems with regard to living marine resources under the Law of the Sea Convention. While there is evidence that this law is being applied to foreign fishermen, domestic fishermen have not generally been subject to user fee schemes. And yet, Milazzo estimates that the subsidy inherent in the failure to charge for resource rents may be as high as 10% of all fishing revenues.

Once again, there is no WTO dispute settlement law precisely on this matter but the indirect litigation is informative. For instance, the *United States – Tax Treatment for Foreign Sales Corporations (FSC)* decision applied a narrow interpretation of the Subsidies Agreement Article 1(c) definition of revenue that is "otherwise due" by suggesting that the WTO is not in the business of determining particular types of regulation (in this case, a tax system).⁹² Thus, foregone rent may not fit the Article 1 definition of subsidy unless the interpretation of revenue otherwise due is somewhat broadened.

In adopting a different line of attack for addressing foregone resource rents there is some hope in the finding of the *United States – Softwood Lumber from Canada* case that the "provision of goods", in the Article 1 definition of subsidy, would appear to include resource harvesting rights.⁹³ However, to take the argument further, it may be factually necessary to have such a resource rent collection scheme established in which selective or subsidised rent collection is taking place. Clarification of these circumstances and the applicable law in the context of Doha Round Subsidies Agreement interpretation/revisions may be advisable.

Environmental and hygiene subsidies

Fleet reduction programmes (e.g., the EU's Multi-Annual Guidance Programme) are designed to protect the environment (e.g., marine resources) by encouraging less fishing activity – primarily through fleet downsizing. Ironically, there is evidence to suggest that this particular programme has merely served to displace the fleet, resulting in increased fishing effort in

⁹² *United States – Tax Treatment for Foreign Sales Corporations (FSC)*, WT/DS/108/R (Panel Report) and WT/DS/108/AB/R AB Report), para. 90.

⁹³ *United States – Softwood Lumber from Canada*, WT/DS236/R, paras 7.26–30.

overseas waters. Questions can clearly be raised about the appropriateness of these sorts of environmental subsidies necessarily being acceptable.

In other cases, funds are provided to help fishing fleets and processors meet specific environmental or health standards. For instance, considerable financial assistance is provided by the EU to meet hygiene standards related to fish quality. While the nominal effect of these subsidies is similar to more general input subsidies, the actual consequences may be quite different since they often co-exist with import restrictions based on non-compliance with the established standards. For example, both Namibia and Mauritania, among others, have had fish exports to the EU stopped due to hygiene standards. Thus, the combined effect of tighter hygiene standards and subsidised compliance may have significant international economic consequences. (The more general case of trade restrictions is discussed above under the heading “*WTO Law concerning trade distortions*”).

A similar trade restriction may occur with respect to environmental standards applied by importing countries. For example, a developing country’s fish exports may be restricted because it does not apply the polluter pays principle to the fishing industry while the importing country does. This form of implicit subsidy may be unfair. However, any effort to apply a trade restriction on the polluter pays basis would run afoul of existing international trade rules that prohibit discrimination based on production and process methods (PPMs) (e.g., those that give rise to pollution).

Domestic and export price supports

Perhaps the most common form of subsidy is a direct price intervention. Governments often “guarantee” a price, below which domestic producers remove their output from the market and receive compensation for lost income. Alternatively, the government may guarantee a market for a given quantity of fish from domestic fleets, achieving the same objective.⁹⁴ The balance of costs between taxpayers and consumers will depend upon the precise form of implementation. While the declared motivation for such supports is price stability, as long as the price exceeds world-traded prices it will also be a subsidy. However, rather than reducing costs, the subsidy increases prices. The relatively higher price received by the fleets will encourage increased fishing effort (in home waters and overseas).⁹⁵ A similar effect arises from the non-application of output taxes on fish products.

Such domestic price interventions tend to be applied in net importing countries since they guarantee producer incomes, even if domestic costs of production exceed world prices. In net exporting countries, it is more common to use export subsidies. In such cases, price subsidies are provided to products designated specifically for export markets. While foreign consumers may benefit (if world prices fall), foreign fleets will suffer.

Price support mechanisms (e.g., minimum price rules)

⁹⁴ The EU rules on the common organisation of the market in fishery products have traditionally provided for these types of interventions, although one of the objectives of new rules introduced in 2000 was to reduce this type of aid: see Council Regulation (EC) No. 104/2000, [2000] *OJEC* 17/22.

⁹⁵ In order to be effective, domestic price interventions are usually supported by restrictions on imports. This will restrict trade opportunities for overseas fleets.

Minimum price rules are in evidence in both developed and developing countries. It is clear that they distort the actual market value of fisheries products and can lead to trade distortions. As such, they are prohibited under Article 1.1 of the Subsidies Agreement. Still, it may be the case that in local developing country fish markets, a guaranteed minimum price for fish, supports a social policy of stability for fishers living near the poverty line. Insulation from fluctuating world prices for specific species may have some utility. There is the further issue of how price supports in developed countries adversely affect demand for developing country products.

Output tax exemptions

Another form of output subsidy arises from the non-application of indirect taxes on fish products. This is quite common in countries in which fish products are seen as a staple, and are “zero-rated”. This will drive up the “net-of-tax” demand curve and drive down the “net-of-tax” supply curve. Price effects will be ambiguous, but effort will rise unambiguously (in home and overseas waters). If there is no discrimination between output from domestic and foreign fleets, then foreign fleets should also be able to sell more on the domestic market. It is not always the case that foreign and domestic players will be treated in the same way for tax purposes. In fact, it is often the case that rebate schemes, exemption clauses or tax breaks will be factored into corporate tax calculations in the country featuring the output tax exemption. The effect of this differential treatment will give rise to implicit violations of the non-discrimination and reciprocity principles that feature widely in GATT/WTO disciplines. Hence, output tax exemptions must be subject to detailed regulatory and policy scrutiny.

Trade and market restrictions

There are two types of explicit trade restrictions: import tariffs and import quotas. They can be designed to have precisely equivalent effects, with one being the price-based equivalent of the analogous quantity-based measure. In both cases, imports from foreign fleets are discouraged from entering the market in order to give domestic fleets a guaranteed share of the market despite their relatively higher fishing costs. As a consequence, domestic prices are supported artificially and fishing effort increases. Since the catch of the DWF fleets in overseas EEZs are not imports, it will also encourage increased activity of the domestic fleet overseas.

Less explicit trade restrictions can take many forms and their consequences can be quite indirect. For instance, trade restrictions arising from exporters’ inability to meet domestic hygiene standards can be based upon legitimate concerns about public health, but result in significant barriers to trade. Similarly, the use of administratively complex marketing mechanisms may restrict market access for foreign exporters. The economic consequences are much the same as under explicit trade restrictions. Domestic prices will be supported, the effort of the domestic fleet will tend to rise (at home and abroad) and overseas fleets will suffer.

Market access regulations/restrictions

At times, developed countries will impose restrictions on access for developing country fisheries products to their markets. These restrictions cause trade distortions. They have also been labelled as indirect subsidies to developed country-fishing fleets in the sense that they give them favourable access to domestic markets. There is growing concern that calls for the sustainable management of natural resources (including fisheries resources) will effectively

block developing country access to developed country markets. Eco-labelling regimes such as the Unilever-WWF Marine Stewardship Council and the GATT *Tuna-Dolphin No 1* and *Tuna Dolphin No 2* disputes serve as examples of this trend. The author has analysed the implications of eco-labels as a form of indirect subsidy elsewhere.⁹⁶

Customs regulations which deter the free movement of goods or tariffs/taxes on fish products

Article XI of the GATT presently excepts import restrictions on fisheries products from WTO disciplines. The extent of this potential indirect subsidy on developing countries has not been previously studied. Hence, it requires some examination as does the general system of preferences that regulate flows of fisheries products between developed and developing countries. Mechanisms such as “tariffication” or taxation can act as a significant impediment to fisheries product flows from developing to developed countries in the form of indirect subsidies. The action required here is to obtain the WTO general system of preferences data on fisheries product flows in order to determine any trade distortions which adversely affect developing countries. Adverse effects encountered in this evaluation will be brought to the attention of EU governments in connection with current WTO trade negotiations.

Compulsory landing requirements in the country of origin

In a 1989 Canada–United States Free Trade Agreement ruling, the *Salmon-Herring* decision, compulsory landing requirements under the Canadian *Fisheries Act* designed to monitor takings of salmon and herring at Canadian ports were ruled to constitute a quantitative trade restriction (following GATT Article XI language).⁹⁷ These monitoring rules, aimed at guaranteeing the sustainability of fish stocks, are implicitly subsidies designed to protect fisheries resources, as they are government funded and deal with conservation issues that represent externalised costs. The impacts of these subsidies and their size should be measured for their impacts on the sustainability of developing country fisheries resources.

Restrictions or supports for horizontal or vertical integration, controls on supply, market entry, applying dissimilar conditions to suppliers, processors or retailers in a manner which distorts competition

Many DWF country government support schemes aimed at diversifying firms to include harvesting, farming, processing and marketing under one corporate roof are becoming a permanent fixture in a number of markets. The aim is to achieve greater value-added benefits for local fishing firms both for domestic and foreign market participation. These strategies represent a form of direct subsidy disciplined by Articles 1 and 3 of the Subsidies Agreement. As such, their existence may be challenged.

⁹⁶ Z. Makuch, “TBT or not TBT, That is the Question: The International Trade Law Implications of European Community GM Traceability and Labelling Legislation”, *European Environmental Law Review*, Vol. 13 (2004).

⁹⁷ In Re Canada’s Landing Requirements for Salmon and Herring (FTA Salmon and Herring), US–Canada Binational Panel Final Report, October 16, 1989, 12 ITRD 1027.

Targeted assistance for the distant-water fleet

Finally, there are two forms of assistance which target the distant-water fleet directly.⁹⁸ On the one hand, many governments negotiate access to foreign EEZs on behalf of the DWF nations. In most cases, the agreed compensation is financed out of general budgetary expenditures, and not from the fleet directly. In such cases, the fleet will have a direct incentive to fish in foreign EEZs (rather than in home waters) and the DWF fleets will be more competitive relative to the domestic fleet than if the fleet had to pay for access directly.⁹⁹

No WTO Panel has made a ruling on this issue and it may well be that the Subsidies Agreement does not sufficiently address the subsidy problem of “cash for access” agreements of the EU–ACP kind. Still, there is no legal reason in principle why such a subsidy type would not be included in the Subsidies Agreement Article 1 definition of subsidy. The EU certainly provides a service (see Article 1.2(a)(1)(iii)) to EU fleets in connection with access agreements and other elements of the definition are satisfied.¹⁰⁰

On the other hand, many governments provide commercial assistance for joint ventures with overseas fisheries. This assistance can take any of the forms outlined above, but will be targeted at specific vessels and firms. The advantage of a joint venture is that it avoids (or reduces the cost of) having to negotiate access, since the partner will usually have fishing rights. The catch will still be considered as an import into the domestic market, but if necessary, preferential trade agreements may be simultaneously negotiated.

Foreign access subsidies

Bilateral access agreements of the kind typically negotiated between EU and ACP States are perfect examples of “subsidies” for foreign access to fishing grounds. Though they tend to be small as a total proportion of subsidies in the fisheries sector, they are not insignificant. The EU devotes up to one-third of its budget to these agreements resulting in a subsidy of some €400 million in total.

These subsidies appear to be at odds with the spirit and objectives of international trade. They constitute nation-to-nation payments as contrasted with bilateral agreements between fishing companies and nations with waters targeted for fishing access. The latter type of bilateral agreement does not likely run afoul of WTO subsidies disciplines though income expenditures by target water nations may give rise to a breach of subsidies rules.

For the purposes of future regulatory and policy reform, closer scrutiny is required into the nature of the expenditures undertaken by the developing or least developed country resulting from bilateral access agreement expenditures. This is important in determining sustainable livelihood incentives or disincentives including related policy, legal, social and economic linkages. In particular, the use of revenues from such agreements for income support schemes, such as welfare, unemployment insurance, health insurance, education, sustainable fisheries management, and other resource rent features, may constitute a justification for qualified

⁹⁸ Note that some of the other types of subsidies can also be targeted at the DWF fleets. For instance, in a number of ways the structural funds of the CFP are designed to relieve pressure on domestic waters by shifting capacity towards the DWF fleets.

⁹⁹ Note, however, that the DWF fleet will usually still pay the same resource rents as the local fleet.

¹⁰⁰ Article 1.2(a)(1)(iii) of the Subsidies Agreement and Article 1 in general.

developing country and least-developed country exemption provisions in the WTO Subsidies Agreement.

Joint venture support schemes or regulations

Joint venture enhancement strategies feature prominently in the some of the EU’s non-ACP agreements and several other bilateral agreements between DWF nations and developing countries. To the extent that such schemes are financed by government funds they contravene Article 1.1 of the Subsidies Agreement. Conversely, these schemes exist in part to increase developing country market share in domestic water fisheries products and may serve effectively to phase-out foreign fleet presence in developing and least-developed country waters. They may contribute to the sustainability of the resource. This tension requires further investigation. Discussions with developing country representatives have already made their position clear. What remains is to quantify the potential for and value of economic losses associated with such developed country actions.

Conclusion

Milazzo has provided compelling evidence of the extent of subsidisation in the fisheries sector. The detailed analysis of subsidy types identified above builds on this work. There are compelling reasons why careful scrutiny should be given to the underlying policy basis for these subsidies. An apparent disjunction would appear to exist between these expenditures and the advancement of sustainable fisheries management regimes in a large number of the world’s fisheries. Moreover, WTO disciplines have not evolved in a manner that addresses the public policy delivery of developing country or least-developed country sustainable livelihoods, appropriate fisheries management regimes, or social/income support structures. As such, they are more likely to run afoul of WTO rules with associated profound dislocational effects at the social and economic levels and even perhaps with respect to the sustainability of fisheries resources.

One focal point is the potential for such dislocational effects to take place by reference to clear empirical examples. The examples provide evidence for the development of a perspective that is not anti-subsidy *per se*. Rather, it is a perspective that reflects the relative sophistication of regulation and public policy as it has evolved with respect to the management of fisheries and fisheries sector dependent communities that they support. In this way, the detail of a subsidies regime which supports sustainable fisheries management policy and sustainable livelihoods is more thoroughly revealed.

Table 2: Likely effects of the different categories of fisheries subsidies

	Costs of fishing	Fishing effort	Fish prices	Incentives for access	Home trade effects	Foreign trade effects
Direct financial assistance	Decrease	Increase	Decrease ¹	Increase	Positive	Negative
Indirect financial assistance²	Decrease	Increase	Decrease	Increase	Positive	Negative
Resource rent subsidies	Decrease	Increase	Decrease ¹	Decrease	Positive	Negative
Price supports³	None	Increase	None ⁴ / Increase	Increase	Positive	Negative
Trade restrictions	None	Increase	Increase	Increase	Positive	Negative
DWF assistance	Decrease	Increase ⁵	Decrease	Increase	Positive	Unclear ⁶

1. If trade in fish is restricted (e.g., protectionism or perishability) or subsidising country is large.
2. Assumes trade in subsidised sector is imperfect (protected or non-tradable) to some extent.
3. Assumed to be guaranteed prices or export subsidies.
4. Export subsidies unlikely to have “home” price effects.
5. Increase in overseas EEZs, may be slightly countered by fall in home waters.
6. Negative for access agreements but potentially positive for joint ventures.

The effect of a subsidy on longer-term prices is less clear. While initial decreases in price may be expected with a subsidy, if continued, a subsidy results in a “permanent” shift of bionomic equilibrium, reduced supplies and higher prices may be expected. Similarly if the effect of a subsidy results in stock damage then prices will be higher for the duration of the recovery period because of reduced supply. These price movements will obviously be influenced both by product substitution and price elasticities, but the general trend should be apparent in markets where supplies are tight (e.g., the global whitefish market).

Finally, if it is the case that subsidies at least have the potential to contribute to overcapacity and overfishing then there is a logical question as to what should be done about it. As much of the analysis has focused upon the WTO Subsidies Agreement, for those among us who accept that the WTO is developing greater sophistication in its approach to sustainability issues, the WTO Negotiating Group on Rules should be seen as an excellent forum for clarifying and interpreting the application of the Subsidies Agreement’s rules to fish subsidies. One should not be dismayed by the apparent lack of precision of the Agreement as it applies to subsidies because the Agreement is still in its infancy and it was drafted with a global rather than sectoral (i.e., fisheries sector) approach in mind. On this point, a deliberative strategy in which an agreed interpretation on Subsidies Agreement subsidy categories and fish subsidies *coincides with* a measure of patience and flexibility, so that the dispute settlement mechanism can play a proper interpretive role as factual circumstances give rise to the need for further interpretation, would seem to be the appropriate way forward.

As our understanding of the relationship between fish subsidies and (un)sustainable fisheries management measures becomes more certain, so too will certainty over the competence and capacity of the WTO to address the legality and related policy treatment of fish subsidies. With regard to EU–ACP Agreement fish subsidies it is already apparent that a transition is being made away from financing overcapacity and overfishing and in the direction of promoting sustainable fisheries management in third country waters. Of course, the *Communication on an Integrated Framework for Fisheries Partnership Agreements with Third Countries* must be improved in step with the evolving positions of the EU on fish subsidies at the WTO Negotiating Group on Rules.

In addition, given its significant involvement in developing and least-developed country fisheries, the EU should lead WTO Members in re-defining the language of Article 27 of the Subsidies Agreement so that the special and differential treatment measures for developing countries are made consistent with and do not detract from sustainable fisheries management governance. Special and differential treatment measures should continue to maintain appropriate levels of developing country access to developed country markets on preferential terms. Technology and knowledge transfer related to sustainable fisheries management should continue to be encouraged as should the promotion of domestic landings in order to promote local shore processing capacity and know-how. Moreover, the EU should be encouraged to maintain and enhance its roles in bilateral co-operation because the alternative of pulling out of these agreements would probably lead to less restrictive and less well regulated fishing by non-EU vessels. The EU should, however, use its considerable resources and influence to

focus greater attention on advancing more sustainable fishing practices and disincentivising illegal, unregulated and unreported fishing.

While beneficial subsidies should be maintained, EU subsidies that adversely affect sustainable fisheries management practice should be treated by the EU as if they were the government policy of the relevant third country and revised or repealed accordingly. Such a step would be particularly effective once WTO Subsidies Agreement reform takes place in the direction of sustainable fisheries management.

It would, however, be unfair to expect the WTO to answer all charges related to fisheries subsidies because it is an institution that specialises in trade regulation and the disciplining of trade distortions. For this reason, in the context of developing country relations, the European Union should evolve a specific policy on fish subsidies as they apply to third countries. It should be based on the following principles derived from the work of an outstanding group of fisheries policy experts: subsidies that harm fisheries resources should be phased out; Community and regional development assistance should be designed to minimise damage to fisheries resources; unbudgeted and indirect subsidies must be made transparent through Government measures and WTO disciplines should be consistent with these principles.¹⁰¹

In implementing these principles, the EU should address specific linkage issues such as the relationship between: fish subsidy categories and overcapacity/overfishing; fish subsidies and specific stock depletion; fisheries management practices and subsidies in relation to stock depletion. As answers to these specific issues emerge they should lead to greater EU and other WTO Member leadership on subsidies and sustainable fisheries management not only in academic debate but in the evolution of WTO law and practice through the good offices of the WTO Committee on Trade and Environment. In comparison with other WTO fora this Committee possesses the potential sustainability counterbalance that can guide Members in the evolution of subsidies disciplines that support sustainable fisheries management practice and development assistance policy for developing and least-developed countries.

¹⁰¹ See P. Manning, *et al.*, “Fishing for the Future”, *supra* in the initial footnote at 86–7.



Current Developments, Reports and Shorter Articles

Role of the FAO Code of Conduct for Responsible Fisheries in Promoting Social and Economic Sustainable Development in Fisheries

Benedict P. Satia*

The FAO Code of Conduct for Responsible Fisheries was adopted in 1995 and lays down a comprehensive framework for virtually all aspects of fisheries management. Within this framework, the Code addresses many socio-economic aspects of fisheries, including production, employment, environment and food security. This paper provides a brief overview of the main parts of the Code relating to social and economic sustainable development, some of the activities implemented to date, and current constraints to implementation, and suggests a number of possible steps for improved future implementation.

Keywords Code of Conduct, developing countries, sustainable development, FAO

Background and objectives of the Code of Conduct

The concept of responsible fishing and the possibility of elaborating guidelines or a code of practice for responsible fisheries which would take into account all the technical, socio-economic and environmental factors involved, was first discussed, at least within FAO, in the 1991 Session of the FAO Committee on Fisheries (COFI). COFI acknowledged that FAO had an important role to play in promoting international understanding about the responsible conduct of fishing operations and it was in this way that the concept of, and the need for, a Code of Conduct was conceived. Following an extensive consultative and negotiation process among FAO Members, the FAO Conference unanimously adopted the Code of Conduct for Responsible Fisheries (the Code of Conduct) in October 1995.¹

The Code of Conduct is a global, voluntary instrument, that sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources with due respect for the ecosystem and biodiversity. The leading objective of the Code of Conduct is to establish principles for responsible fishing and fisheries activities, taking into account all their relevant biological, technological, economic, social, environmental and commercial aspects. In doing so, the goals of long-term sustainability, as envisaged by the United Nations Conference on Environment and Development (UNCED) and the World Summit on Sustainable Development (WSSD), are implemented.²

* Chief, International Institutions and Liaison Service, FAO, Fisheries Department, Rome, Italy. The views expressed in this paper are those of the author and do not imply endorsement by FAO.

¹ Code of Conduct for Responsible Fisheries, FAO Doc. 95/20/Rev. 1 (1995), reproduced at <www.fao.org/fi/agreem/codecond/codecon.asp>.

² On the relationship between the WSSD and fisheries, see B. Satia, 'The World Summit on Sustainable Development and Fisheries' *International Fisheries Law and Policy Review* Special Issue 11 (2003).

The scope of the Code is comprehensive, and it pays special attention to the management and utilization of capture fisheries and aquaculture.³ When the Code was being negotiated, the focus of discussion slanted heavily towards the management problems of industrial capture fisheries: small-scale fisheries and aquaculture issues were addressed but not to the same extent as those of its large-scale counterparts. However, despite the emphasis on the latter fisheries, the principles and thrusts of the Code apply equally to small- and large-scale fisheries. Thus, as regards both, the Code expressly recognises the economic and social importance of fisheries, and all those concerned with the fisheries sector.⁴ The greater emphasis on capture fisheries, at the time of its elaboration, is based on the following considerations. Capture fisheries are:

- the backbone of global fish production and will continue to be so for some time to come, despite the increasing importance of aquaculture production in some areas of the world;
- of extreme social importance for food, especially for some of the poorest groups in the developing world;
- almost universally experiencing problems in terms of their levels of exploitation and the manner in which they are exploited;
- showing little growth in production, and indeed production declines in many instances, due to a lack of management and overfishing; and
- directly and indirectly employ, throughout the world, a large number of fishers and fish workers.

Implementation and fulfilment of the Code's objectives requires consistent and concerted efforts by all stakeholders involved in the fisheries sector, at all levels. However, primary responsibility rests with governments because it involves national policy, decision-making and action.

State of world fisheries

The emphasis placed on capture fisheries is reinforced by the FAO State of World Fisheries and Aquaculture (SOFIA) Report 2002, which stated that nearly half of world marine stocks offer no reasonable expectations for further expansion and another 18 per cent of stocks or species groups are reported as overexploited.⁵ Prospects for expansion or increased production from these stocks are negligible, and there is an increasing likelihood that stocks will decline further and catches will decrease, unless remedial management action is taken to reduce overfishing conditions.

³ Extensive work has also been done to strengthen the components of the Code that relate to aquaculture and inland fisheries.

⁴ Examples of references to socio-economic aspects in the Code include: Articles 6.4 (conservation and management decisions); 6.14 (international trade); 6.17 (working and living conditions); 7.4.2 (research in support of fishery conservation and management); 7.4.3 (studies of alternative management options); 7.4.5 (development of knowledge of social, economic and institutional factors); 7.5.2 (the precautionary approach); 8.4.4 (technology for the best use and care of the retained catch); 8.11.3 (management systems for artificial reefs and fish aggregation devices); 9.1.4 (impact of aquaculture development on local communities); 9.1.5 (environmental assessment of aquaculture); 10.2.5 (research in support of coastal area management); 11.1.6 (support projects to improve post-harvest handling of fish); and 12.1 (fisheries research).

⁵ See FAO, *The State of World Fisheries and Aquaculture 2002* (FAO, 2002), 21-26. The report is also available at: <ftp.fao.org/docrep/fao/005/y7300e/y7300e00.pdf>.

The Report observed that, as the principles of sustainable development are adopted, administrators are becoming increasingly accountable for social, economic, financial, legal and governance issues, in addition to conventional conservation matters.

FAO activities to promote implementation of the Code of Conduct

Since its adoption, the Code of Conduct has constituted the primary normative framework for the activities of the FAO Fisheries Department. The implementation of the Code is promoted through numerous programme and field project activities, many in collaboration with or by technical support to other UN and international agencies and organizations, regional organizations and Member governments. The programmes and activities include the following:

- development of Technical Guidelines to facilitate implementation of the Code of Conduct⁶;
- development of International Plans of Action (IPOAs)⁷ and the Strategy for Improving Information on Status and Trends of Capture Fisheries (Strategy-STF)⁸;
- information dissemination;
- the organization of technical consultations and assistance;
- the organization of conferences, workshops, training with the objective of awareness raising and sensitization;
- meetings sponsored by FAO or held in cooperation with FAO to strengthen the implementation of the Code of Conduct, IPOAs and Strategy-STF;
- monitoring global developments;
- promotion of the Code of Conduct through Regional Fishery Bodies or arrangements;
- *support to regional and national efforts to implement the Code of Conduct*;
- promotion of the Code of Conduct through projects such as FishCode⁹ and Sustainable Fisheries Livelihoods Programme.¹⁰

⁶ So far, nine technical guidelines have been elaborated (concerning Fishing Operations, Precautionary Approach to Capture Fisheries and Species Introductions, Integration of Fisheries into Coastal Area Management, Fisheries Management, Aquaculture Development, Inland Fisheries, Responsible Fish Utilization, Indicators for Sustainable Development of Marine Capture Fisheries, Implementation of the International Plans of Action to Deter, Prevent and Eliminate Illegal, Unreported and Unregulated Fishing). FAO has also elaborated three Supplements to these Guidelines (Fishing Operations – Vessel Monitoring Systems, Fisheries Management – Conservation and Management of Sharks, Aquaculture Development – Good Aquaculture Feed Manufacturing Practice) and three simplified guides (What is the Code of Conduct for Responsible Fisheries, Stopping Illegal, Unreported and Unregulated Fishing and Inland Fisheries). These documents are available at: <www.fao.org/fi/agreem/codecond/codecon.asp>.

⁷ Four International Plans of Action have been developed, under the auspices of FAO: International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries, International Plan of Action for the Conservation and Management of Sharks, International Plan of Action for the Management of Fishing Capacity and International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; available at <www.fao.org/fi/agreem/codecond/codecon.asp>. The first three were adopted in 1999 and the IPOA-IUU-Fishing in 2001.

⁸ FAO, *Strategy for Improving Information on Status and Trends of Capture Fisheries* (FAO, 2003), available at: <www.fao.org/DOCREP/006/Y4859T/Y4859T00.HTM>.

⁹ FishCode is a trust fund programme supported currently by the Governments of Japan, Norway and the United States of America amongst others, and facilitates activities designed to implement the Code and the IPOAs as well as the Strategy on Status and Trends in Developing Countries.

¹⁰ The Sustainable Fisheries Livelihoods Programme (SFLP) represents a partnership between FAO, the UK Department for International Development (DFID) and 25 participating countries of West Africa. The SFLP uses the Code, and poverty profiling as tools in the SLA context to facilitate changes in policies, institutions

Future FAO strategies and activities relating to the Code of Conduct were identified by COFI at its Twenty-fifth Session in 2003, where it urged FAO to broaden and deepen its efforts to promote implementation of the Code, and identified a number of areas where efforts should be made.¹¹

Main constraints of FAO member States in implementing the Code of Conduct

Article 4 of the Code recognizes, *inter alia*, FAO responsibility to monitor the implementation of the Code and to report to the Committee on Fisheries (COFI) on progress and related developments concerning implementation. To date, COFI has reviewed consolidated implementation reports on the basis of self-assessment information provided by governments and other stakeholders, at its Sessions in 1999, 2001, and 2003. At the most recent Session in February 2003, 105 Members responded to FAO's request for input into the consolidated report.¹²

These reports have indicated that although the benefits of implementing the Code of Conduct are widely acknowledged, including an enhanced social and economic value of fisheries, FAO Members experience a range of constraints in undertaking relevant actions. Main constraints, as identified by Members, were reported to the Twenty-fifth session of COFI in 2003. They were of a structural, legislative, financial and social nature.

The *structural and legislative difficulties* included a lack of resources for staff and for research (the most common constraint); insufficient political will on the part of governments to implement the Code; the inability to resolve conflicts and grievances within the fisheries sector, or between the fisheries sector and other related sectors; an inadequate legislative framework or absence of a general fisheries development strategy; and insufficient communication within fisheries administrations or with other sectors of governments.

Financial and social constraints were related to: a lack of funds to improve working techniques to ensure the application of the Code and the elaboration of appropriate national plans of action; inadequate awareness of the mechanics of implementation of the Code, especially at the local and stakeholders levels; insufficient resources for stakeholders; lack of timely, complete and reliable data; illiteracy or low levels of education among aquaculturists and fishers; resistance of fishers and aquaculturists to new technology or to changes in their working methods; and poverty and demographic pressure.

The steps taken to alleviate the above constraints across countries included institutional strengthening; promoting the use of guidelines; setting-up of outreach and extension programmes and capacity building; involvement of fishers in the implementation and monitoring of the Code through community-based management approaches; fishers and fishing organisations involvement in data collection; monitoring and assessing the impact of the Code and the setting up of national steering committees for drafting of national codes and

and processes to achieve poverty reduction in coastal and inland fisheries communities by improving livelihoods of people dependent on fisheries and aquatic resources.

¹¹ FAO, *Report of the twenty-fifth session of the Committee on Fisheries*, FAO Fisheries Report No. 702 (FAO, 2003), paras 16-34 (available at: <www.fao.org/fi/body/cofi/cofi.asp>).

¹² See *Progress in the Implementation of the Code of Conduct for Responsible Fisheries and Related International Plans of Action*, FAO Doc. COFI/2003/3/Rev.1, reproduced at: <www.fao.org/DOCREP/MEETING/005/Y8370E.HTM>.

national plans of action (NPOAs) that are called for in some of the International Plans of Action.

Socio-economic value of fisheries in the context of sustainable development

As noted above, the Code of Conduct addresses many socio-economic aspects of fisheries, including production, employment, environment and food security. It is clear that responsible and sustainable fisheries management, as set out in the Code's framework, would have positive impacts on the socio-economic value of fisheries.

Regrettably, we are not aware of any global estimate of the socio-economic value of fisheries. Such an estimation would be difficult because of such factors/phenomena as illegal, unreported and unregulated (IUU) fishing activities and the pernicious problem of by-catch and discards in fisheries, to cite only two examples.

With regards to IUU fishing, the associated costs are in most cases unquantifiable, due to the unreported nature of IUU fishing. In addition, IUU fishers operating outside applicable laws, measures and standards gain an unjust advantage over legitimate fishers, and stand to reap comparatively greater economic benefits. Available information nevertheless indicates that, for some important fisheries, IUU fishing accounts for up to 30 percent of total catches.¹³ A number of regional fisheries management organizations (RFMOs) have indicated significant IUU fishing in their regions, including the International Commission for the Conservation of Atlantic Tunas (ICCAT) for major Atlantic tuna species and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) for toothfish or *Dissostichus* spp. Available information strongly suggests that, despite apparent improvement in some regional situations, the amount of IUU fishing world-wide is increasing, as IUU fishers seek to avoid compliance with stricter fishing regulations that are being imposed to deal with downturns in a growing number of fish stocks.

One unwelcome socio-economic cost of IUU fishing is its impact on the marine environment. Those who conduct IUU fishing are unlikely to observe rules designed to protect the marine environment from the harmful effects of some fishing activities, including, for example, gear restrictions established to minimize waste and bycatch of non-target species. This frustrates fishery management objectives and can lead to the collapse of a fishery, or seriously impair efforts to rebuild depleted fish stocks. This, in turn, may result in lost economic and social opportunities, both short-term and long-term, and may diminish food security.

Some efforts are successfully being made through some RFMOs, such as ICCAT and CCAMLR, to combat IUU fishing by tracing illegally caught fish through catch certification and trade documentation schemes. These have had a positive impact on the level of IUU fishing when coupled with other measures adopted by member and cooperating non-member States of the RFMOs, such as prohibition of landings and transshipments of illegally caught fish and trade sanctions against flag States of IUU fishing vessels.

On the basis of these initiatives by RFMOs and their impact on IUU fishing, it would appear that some progress can be made in quantifying the social and economic costs of IUU fishing, and in estimating the corresponding value. However, it would appear this has not yet been done.

¹³ See FAO, *The State of World Fisheries and Aquaculture 2000* (FAO, 2000), 57.

The issue of discards is another example of the potential socio-economic negative effects on sustainable development in fisheries. It is estimated that recorded discards are at a level of 6.8 million tonnes, or 8.7% of the total of recorded catch/landings. The Code encourages States to take a number of actions to address discards, including: encouraging the development and implementation, with relevant groups from industry, of technologies and operational methods that reduce discards; collecting reliable and accurate data on discards; and carrying out studies on the selectivity of fishing gear. In addition, discards are addressed by the IPOAs, including the IPOA for reducing incidental catch of seabirds in longline fisheries (IPOA-Seabirds) and the IPOA for the conservation and management of sharks (IPOA-Sharks). These instruments are reinforced by UN General Assembly resolutions on bycatch and discards. Most recently Resolution 57/142 of 2002 urges action to reduce or eliminate by-catch and discards and mentions a range of appropriate measures, consistent with the Code of Conduct.

The economic and social impacts associated with the practice of discarding are addressed in a recent report prepared for FAO on fisheries discards.¹⁴ The report reviews the relevant economic costs and benefits, noting that the most common reason for discarding is to jettison non-target species of a lower value and therefore increase profits by saving costs associated with retaining, storing and landing the product. However, it notes that a particular management regime can alter the incentive to discard. It is suggested that an assessment of the economic costs/benefits of discarding or retaining material could be considered in three categories: “first round” or direct costs/benefits; “second round” or indirect costs/benefits (e.g. to vessel suppliers, processors) and “third round” economic impacts (increasing international public concern because of social/environmental impacts, cost of monitoring, control and surveillance specifically for discards, non-reporting of discards leading to false stock assessments for management advice, and the costs of discard reduction research activities). A number of case studies are presented that provide useful information on the impact of some regulations on discarding and the resulting economic implications/costs, and on some possible solutions in terms of amendments to regulations and market developments.

The social costs/benefits of discarding in any fishery are based more on aspects of distribution than on efficiency (the main concern of economic analysis). They should be assessed based on a comparison of the social costs/benefits of discarding or retaining the discards, and, as with economic impacts, at the first-found level and the second-round level through multiplier effects. For example, while there may certainly be social costs of discarding in temperate fisheries, especially where management measures result in vessels having to discard fish even if it is not economically advantageous for them to do so, the social impacts of discarding are likely to be greater in tropical fisheries. In tropical fisheries, levels of food insecurity, low income levels, and the desire by many small-scale fishers to gain access to product that would otherwise be discarded, mean that discarding rather than landing unwanted bycatch has clearer social costs. There appear to be few empirical studies assessing the social impacts of discarding. However, the social impacts can be implied from those studies which demonstrate the social benefits from landing and utilising bycatch; a number of studies are reviewed and presented in the report on fisheries discards.

The promotion of the Code of Conduct has increased public and international awareness of discards as morally unacceptable waste. Scientific concerns have resulted in a broad range of

¹⁴ Unpublished final report, Fisheries Discards (An Assessment of Impacts and a Review of Current Legislation and Reduction Programmes), April 2003, by Poseidon Aquatic Resource Management Ltd. to FAO Fisheries Department.

bycatch and discard reduction initiatives, for example the program on bycatch donations, described below.

Bycatch donations

Waste of salmon and halibut bycatch has been reduced in the Northwest Pacific by allowing bycatch to be donated to food banks. The food banks in turn distribute the fish to needy people in the north-western United States.

Alaska seafood processors voluntarily donated 85,000 pounds of salmon and 14,000 pounds of halibut providing over 300,000 meals for hunger-relief programs under the National Marine Fisheries Service prohibited species donation program in 2000.

Source: Responsible Fisheries Management into the 21st Century, A Report from the North Pacific Fishery Management Council, August 2002.

It is believed that there has been a reduction in discard rates over the past decade, for two major reasons: a reduction of bycatch due to the use of more selective fishing gears and the introduction of regulations and improved enforcement; and increased retention of bycatch for direct utilisation as a result of improved technologies and expanding market opportunities, or for conversion to fish meal or similar products.¹⁵

Some measures that have been taken to implement the Code's references to discards include:

- mitigation measures taken with respect to seabirds, consistent with the IPOA-Seabirds;
- legislation on shark finning (regulating discards of sharks) – IPOA-Sharks; and
- providing a model for relevant provisions in national legislation, e.g. release of turtles, marine mammals.

Notwithstanding such successes, some fisheries have contributed to increases in discards, notably deepwater fisheries, and fisheries where severe quota restrictions have resulted in high-grading. Overfishing in many fisheries also contributes to increases in discards, particularly where an increasing proportion of the target species is comprised of juveniles, or fish below minimum landing size. Anecdotal evidence suggests that despite the introduction of square mesh panels and other bycatch reduction measures, stricter enforcement of progressively reducing quotas is, in some fisheries, resulting in greater discards.

Conclusions and the way forward

It is regrettable that there seem to be no specific comparative socio-economic studies on fisheries managed on the principles of the Code of Conduct and those managed without reference to the Code. The current state of world fisheries and the potential impact of IUU fishing and discards on the socio-economic value of the resource, as briefly described above, bring into focus the role of the Code in providing a comprehensive framework for fisheries management, and the consequences of what could happen if there were no effective implementation of the Code.

¹⁵ However, it is noted that an assessment of general trends can disguise the wide variety of discarding practices and the reasons for discarding, and the ongoing changes in the fisheries concerned.

Although there are clear challenges to implementing the Code of Conduct, including the main constraints experienced by some FAO Members, efforts to meet these challenges, as well as detailed studies of a socio-economic nature on specific articles of the Code, would strengthen the role of this instrument in promoting social and economic sustainable development in fisheries.

We suggest three examples of work that could be undertaken:

- (a) Cost benefit analysis of the impacts of discards. This would enable policy makers to be explicit in their reasons for choosing particular policy options that i) may be more effective than others in generating benefits, and ii) which may trade off certain objectives for others, e.g. economic efficiency for social equity;
- (b) Cost and earnings analysis in fisheries that could potentially increase value added by using material that would otherwise be discarded by other vessels: a simple business model for such an analysis is provided in the Annex;
- (c) A comparison of social costs-benefits resulting from discarding by-catch or retaining it. Such an assessment is based more on aspects of distribution, than of efficiency – the main concern of economic analysis. These social costs may be reflected in social indicators such as:
 - employment and earnings;
 - gender impacts;
 - creation of business activity in areas dependent on fishing or with few other economic/employment opportunities;
 - food security; and
 - livelihood strategies.

ANNEX

SIMPLE BUSINESS MODEL¹⁶

SALES		
Mean catch per fishing day	a	
Mean price	b	
Number of fishing days / year	c	
Total annual revenue	d	= (a × b × c)
FIXED COSTS		
Depreciation	e	
Interest	f	
Vessel repairs and maintenance	g	
Other	h	
<i>Fixed costs ex depreciation</i>	<i>i</i>	<i>= sum (f:h)</i>
Total fixed costs	j	= sum (e:h)
VARIABLE COSTS (ex labour)		
Fishing gear repair / replacement	k	
<i>Trip costs</i>		
Fuel and lubricants	l	
Ice	m	
Bait	n	
Food and provisions	o	
Marketing costs	p	
Other	q	
<i>Total trip costs</i>	<i>r</i>	<i>= sum(l:q)</i>
Total variable costs	s	= (k + r)
LABOUR COSTS		
Share costs, OR	<i>t</i> ₁	<i>= (d-r)/2</i>
Crew salary	<i>t</i> ₂	
PROFIT	u	= d - (i + s + t)

In the model *total annual revenue* (d) is presented in terms of *mean daily “catch”* (a), *mean price* (b) and *number of fishing or collection days* (c). In practice, determining these variables can be a complex process, requiring investigation of the seasonality of both landings and prices. Catches are usually expressed by fishers as catch per landing, or catch per fishing day, and it is therefore necessary to multiply up to obtain an annual revenue estimate. Note that in small-scale fisheries a “landing” is often equivalent to a fishing day – but not always. In some fisheries trips of several days are normal, and in the case of industrial fishing a fishing trip is often between 3 and 6 months; in others, the vessel may land two or more times in one day.

Fixed costs (i) are those costs that are incurred regularly, regardless of the amount of fishing effort or the amount and value of catch landed. They include *depreciation* of the fishing vessel, engines and machinery, vehicles and other assets (e); *interest* payable on loans (f); *vessel repairs and maintenance* (g), and various *others*, which might include insurance (h). It might be considered more correct to classify vessel repairs and maintenance as a variable cost,

¹⁶ Poseidon Report, *supra* n. 14.

dependent on vessel activity, but often periods of lay-up or inactivity do not result in a reduction in hull or engine maintenance costs, and they are therefore treated in the model as fixed costs.

Variable costs (s) are those that are related, directly or indirectly, to vessel activity. They therefore represent important inputs to the assessment of costs/benefits of discarding. In the model they are divided into *fishing gear repair and replacement* (k), which is normally the responsibility of the vessel owner, and *trip costs* (r), which are normally shared between the owner and the crew in the calculation of the crew share. Trip costs include all of the immediate direct costs of production and sale, including *fuel and lubricants* (l); *ice* (m); *bait* (n); *food and provisions* (o) and *marketing costs* (p).

Labour costs (t) are structured in many different ways. Worldwide, the most common arrangement is the share system, in which the crew and the vessel owner take equal shares of the catch value after trip costs have been deducted (t_1). There are many variations on this theme, and the crew share may be more or less than 50%. Added complications may arise where there is an additional share for the owners of the gear, which may include crew members as well as the vessel owner. Simpler but less common is the payment of fixed salaries to the crew (t_2), with or without an incentive bonus. None of these details affect the overall quantum of changes to value-added.

The *annual profit* of the enterprise (u) is the gross revenue (d), less all fixed costs except depreciation (i), all variable costs (s) and labour costs (t).



[Report]

The Ministerial Task Force on IUU Fishing on the High Seas

Michael Lodge*

In 2003, a group of environment and fisheries ministers decided to establish a Ministerially-led Task Force on IUU Fishing on the High Seas (the High Seas Task Force or HSTF) under the auspices of the Round Table on Sustainable Development at the OECD. The Task Force was launched in December 2003 and held its first substantive meeting, at which a number of specific proposals for action were adopted, in March 2005. This brief note explains the reasons behind the decision to establish the Task Force and describes the work of the Task Force to date.

Keywords IUU fishing, high seas fishing, port State control, flag State control, trade measures

In December 2003, on behalf of the fisheries ministers of Australia, Canada, Chile, Namibia, New Zealand and the United Kingdom, together with the Directors-General of WWF International, the Earth Institute and IUCN – The World Conservation Union, Elliot Morley MP, the United Kingdom Minister for the Environment formally launched the High Seas Task Force (HSTF). The Task Force, which is ministerially-led, is an initiative to develop practical proposals to combat illegal, unreported and unregulated (IUU) fishing on the high seas. It has the objective of proposing a full menu of prioritized actions, applicable at global, regional and national levels, that keeps the ‘big picture’ to the fore and is both analytically sound and politically saleable. With an overall timetable of approximately two years, it is centred around two “substantive meetings” of the Task Force members, the first of which took place in March and the second of which will take place early in 2006 and at which proposals will be adopted. Developing the work inter-sessionally is a Secretariat, based at OECD headquarters in Paris. This paper provides a brief background to the Task Force and reviews the outcomes of the first substantive meeting.

The Problem of IUU Fishing

IUU fishing is widely considered to be an important factor undermining the sustainability of fisheries worldwide. As concerns have grown about the global sustainability of fisheries, IUU fishing has become a problem of global significance, albeit one that is incredibly difficult to define and quantify in any meaningful way.

The difficulties inherent in trying to quantify the problem stem in part from the obvious fact that fishing that is unreported and in breach of regional and international management regimes doesn’t yield official statistics. Estimates of IUU fishing are extremely hard to come by. At the same time our understanding of fish stocks and their dynamics is by no means complete. The IUU fish harvest is thus an unknown percentage of an ill-defined resource. Recent (and as yet incomplete) work commissioned by the High Seas Task Force indicates that a very preliminary estimate of the overall value of IUU fish might be in the region of US\$1.5bn, of which 66 per cent is due to IUU tuna and swordfish fishing (mostly in high seas waters and the

* *Legal and Scientific Secretary, High Seas Task Force, Paris (Michael.Lodge@oecd.org).*

EEZs of developing countries) and 19 per cent of which is due to IUU fishing of other species within EEZs of various countries.

What is clear, however, is that the presence of IUU fishing undermines efforts to conserve and manage fish stocks. It has adverse effects on the economies and food security of coastal States, particularly developing coastal States and is also associated with unsustainable fishing practices on the high seas. To this must be added the fact that IUU fishing not only has an impact on the species it targets, but also has spill-over effects on the wider ocean ecosystem. Statistics on fish landings over the past ten years, for instance, indicate that there has been a marked reduction in the numbers of larger predatory high-seas fish. This has increasingly shifted the balance of fishing activity down the food chain.

FAO, in its 2004 report on the State of World Fisheries and Agriculture,¹ reports that during the past decade, the reported landings of marine capture fisheries have fluctuated between 80 and 86 million tonnes (average 1993–2003, 84 million tonnes), a slight increase over the preceding decade (average, 77 million tonnes). Marine capture fisheries production in 2002 was 84.5 million tonnes. There has been a consistent downward trend since 1974 in the proportion of stocks offering potential for expansion, coupled with an increase in the proportion of overexploited and depleted stocks. The percentage of stocks exploited at or beyond their maximum sustainable levels varies greatly by area. For example, in the Eastern Central Pacific, only 33 percent of the stocks for which assessment information is available are recorded as fully exploited, with the remainder being either underexploited or moderately exploited, whereas in the Western Central and Northeast Atlantic and the Western Indian Ocean, all the stocks for which information is available are reported as being fully exploited (73 percent, 59 percent and 75 percent respectively) or as being exploited beyond this level. Most worryingly, in 12 of the 16 FAO statistical regions at least 70 percent of stocks are already fully exploited or overexploited, suggesting that that, despite local differences, the global potential for marine capture fisheries has been reached, and more rigorous plans are needed to rebuild depleted stocks and prevent the decline of those being exploited at or close to their maximum potential. In most cases overfishing has been a main contributory factor and in some cases this has been associated with adverse or highly variable environmental conditions. All the information available tends to confirm the estimates made by FAO in the early 1970s that the global potential for marine capture fisheries is about 100 million tonnes, of which only 80 million tonnes are probably achievable.

In these circumstances, the problem of IUU fishing assumes even greater significance. For more than a decade, a huge amount of diplomatic energy has gone into trying to address the problem of IUU fishing. A complex and evolving web of binding and non-binding international instruments aimed at IUU fishing has been constructed. For the most part these instruments have been developed over the past 20 years, and are built on the foundations established by the 1982 Law of the Sea Convention (LOSC). Chief amongst these instruments are the 1995 UN Fish Stocks Agreement (UNFSA), the FAO Code of Conduct for Responsible Fisheries (including the FAO Compliance Agreement) and the FAO International Plan of Action to Prevent, Deter and Eliminate IUU Fishing (IPOA-IUU).

¹ FAO, *The State of World Fisheries and Agriculture* (FAO, 2004); available online at <www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/007/y5600e/y5600e00.htm>.

What these instruments have in common is that they seek to elaborate upon (and in some cases qualify) the relevant provisions of the LOSC that deal with the conservation and management of high seas living resources. The result is a patchwork quilt of measures with differing geographical and legal reach and different levels of participation by States. While the effect of these instruments has undoubtedly been to change the nature and the location of grossly unsustainable high seas fishing, they have not stopped it. Indeed, the correlation between the measures adopted and their impact on the activity they are intended to reduce is often weak. Each new intervention potentially moves the problem somewhere else. One of the key difficulties, which is also recognized in the IPOA-IUU, has been to ensure political leadership in support of internationally agreed targets and other initiatives. Another key problem is what appears to be a lack of willingness on the part of some States to participate in multilateral arrangements and secondly to participate effectively in them.

The OECD Round Table of June 2003

The importance of securing the political will to tackle the problem of IUU fishing on the high seas was one of the aspects underlined by ministers and other participants who attended the Eleventh Meeting of the Round Table on Sustainable Development held at the OECD on 6 June 2003.

The Round Table on Sustainable Development was established in 1998. It is an independent body hosted by the OECD and intended to provide a forum for international dialogue among stakeholders. In its brief existence, the Round Table has established itself at the centre of a large network of ministers, senior private sector executives, NGO leaders and academics that are grappling with environmental and developmental issues at the global level as a place where frank, in-depth discussions could be pursued on a without-prejudice basis.²

The Round Table starts from the premise that the world is generating more and more international conferences, treaties and agreements without necessarily making progress. Global integration has led to the globalisation of almost all policy debates and a standardisation of jargon that suggests common understandings when in fact there is no real meeting of minds. The result is that key decision makers find themselves pressed to attend increasing numbers of meetings without necessarily being able to add value or sift out the questions they need to be able to address in depth. Process can easily overwhelm substance. The Round Table cuts through this problem by selecting subject matter for its meetings that enables participants to focus on what is important and begin to crystallise a practical way forward. Specifically, the Round Table places on its agenda only issues that are:

- (a) truly global in scope and require the engagement of global level players if they are to be moved forward;
- (b) cross-cutting in the sense that their resolution requires engagement by several policy communities and/or decision-making groups; or
- (c) Proving to be extremely difficult to advance through more formal and familiar channels and show little prospect of immediate progress.

In June 2003 the Round Table took up the issue of IUU fishing on the high seas as a prime example of an intractable global issue that had showed little sign of progress. A thought-

² For information on the OECD Round Table on Sustainable Development, visit www.oecd.org/site/0,2865,en_21571361_33995336_1_1_1_1_1,00.html.

provoking analysis prepared for the meeting outlined some of the range of legal and trade-related instruments related to IUU fishing and suggested that what was needed was a thorough-going appraisal of how a suite of initiatives at the global, regional and national levels could, taken in tandem, best bring pressure to bear on IUU high seas fishing.³

The High Seas Task Force

As a direct result of the June 2003 Round Table meeting, a number of the ministers present decided to take action to carry forward the recommendations of the meeting. The High Seas Task Force was formally launched in December 2003 by the United Kingdom Minister for the Environment, Elliot Morley MP. Apart from Mr Morley, the Task Force comprises the fisheries ministers of Australia (Senator Ian Macdonald), Canada (Hon. Geoff Regan, MP), Chile (Hon. Felipe Sandoval Precht), Namibia (Hon. Dr. Abraham Iyambo) and New Zealand (Hon. David Benson-Pope, MP) as well as the Directors-General of WWF International (Mr Claude Martin), the Earth Institute (Dr. Jeffrey Sachs) and IUCN – The World Conservation Union (Dr. Achim Steiner). As a coalition of key stakeholders, the Task Force represents a model of the multi-stakeholder spirit inspired by Agenda 21 and the Johannesburg Plan of Action.

The mission of the Task Force is to spell out a way forward at global, regional and national levels and propose a full menu of prioritized actions that keeps the ‘big picture’ to the fore. A key outcome is intended to be an authoritative, pragmatic and prioritized action plan that is both analytically sound and politically saleable. The intention is that the completed action plan will be placed by ministerial members of the Task Force directly in the hands of other ministers who will then be asked for their views on the main findings and recommendations. Assuming that the analysis is persuasive, ministerial members of the Task Force will be in a strong position to press their colleagues on why, given the consensus on the analysis of the problem, implementation of the recommendations at national, regional and global levels should not be possible. The Task Force’s broad business and NGO membership is expected to help mobilize wider public support for the report’s main findings with a view to generating further momentum for change.

The Task Force will also present its report and recommendations to, inter alia, the FAO Committee for Fisheries, as well as relevant bodies of the UN, UNEP, OECD, the IMO and the UN Commission for Sustainable Development and regional fishery management organizations. The purpose of these ministerially-led presentations will be to seek agreement on the analysis and to press for the implementation of the action plan in a coordinated manner through the respective mandates of such bodies.

There will be three key measures of success for the Task Force. It is expected that:

- (a) The Task Force’s report will become the point of reference for anyone wanting to enter the debate on IUU fishing in the future.
- (b) Ministers on the Task Force will implement its recommendations. Given that the Ministerial membership comprises some of the major fishing nations of the world this is significant in itself and likely to have a substantive impact on IUU activity with positive conservation effects.

³ S. Upton and V. Vitalis, *Stopping the High Seas Robbers: Coming to Grips with IUU Fishers on the High Seas* (OECD, 2003); available online at <www.oecd.org/dataoecd/59/53/34366565.pdf>.

- (c) Ministerial members of the Task Force will directly and personally engage their political counterparts to encourage them to also implement the Task Force's recommended policies. In this way it is hoped that through direct political peer pressure change may be effected.

Fund-raising to support the activities of the Task Force commenced in early 2004. Each member of the Task Force is expected to make a financial contribution to the costs of the exercise, but funds to support the Task Force have also been raised from major philanthropic organizations, including the Packard Foundation and Oak Foundation, as well as from responsible industry bodies, such as the Coalition of Legal Toothfish Operators (COLTO).

Early in 2004, a small Secretariat for the Task Force was established, hosted at OECD headquarters in Paris by the Round Table for Sustainable Development.⁴ The first three months were taken up in organizational tasks, including recruitment of staff, establishing the necessary contractual and administrative relationships with the OECD and fund-raising.

From the outset it was considered that an important element in ensuring the credibility of any Task Force report would be to discuss with key stakeholders the contents of the report and to canvass the widest possible views about the extent of the problem and possible solutions. To do this, the Secretariat assembled four expert groups to investigate and advise on legal, economic and trade, science, and technical enforcement aspects of the IUU fishing problem. Each expert panel is led by an appropriately skilled and internationally-recognized expert.⁵ The membership of each panel is drawn from specialists in the field and provides a means of gathering a wide array of expertise, including from those countries not yet represented on the Task Force. It is envisaged that the outcomes of the discussions within the thematic panels, analyzed and refined through a continuous process of outreach and consultation, will form the basic framework for the Task Force report.

There is no shortage of material on the IUU problem and what needs to be done to fix it. However, within these varying assessments there has not been a detailed analysis of key outcomes, their potential impact, the likelihood of their being implemented and any potential flow-on or spill-over effects. The Secretariat therefore began its substantive work by drawing on the mass of material relating to IUU fishing already available to identify substantive issues for consideration by the HSTF and to identify the key drivers which facilitate IUU activity on the high seas. The first working paper⁶ was circulated to members of the HSTF, officials in HSTF member countries and the expert groups in July 2004 and was also published on the website. The responses to the paper indicated that, in general, the key issues and drivers had been correctly identified.

⁴ It is important to note that the work of the Task Force, which is broad-based and not constrained by institutional or disciplinary boundaries, is not institutionally linked to the work of the OECD Committee on Fisheries which, under its 2003–2005 programme of work, is considering the environmental, economic and social arguments in support of measures in relation to IUU fishing as well as the economic and social impacts of IUU fishing. Nevertheless, although the Task Force Secretariat is not institutionally linked to the work of the OECD Fisheries Committee, it has established a close working relationship with the OECD fisheries secretariat and has been able to draw upon the OECD's work, especially in the field of fisheries trade and subsidies, to aid it in its analysis and avoid any duplication of work.

⁵ The names of the experts are published on the website: <www.high-seas.org>.

⁶ HSTF/01, available at <www.high-seas.org>.

A second substantive paper was issued in September 2004.⁷ Again, the paper was circulated widely to members of the HSTF, officials and the expert groups. It was also published on the website. This paper, which was based on a detailed analysis of the comments and suggestions made in response to document HSTF/01, sought to identify potential areas of intervention for the HSTF. Five broad areas were identified, namely: sharing of intelligence and better coordination of monitoring, control and surveillance; development of a global register of high seas fishing vessels; strengthening of in-port measures and control over nationals; trade-related measures; and RFMO-based initiatives and governance issues. These areas were selected for further study because it was felt that they provided opportunities for HSTF members to act individually and collectively even if other countries are not similarly minded.

Based on analysis of the responses to the paper, the Secretariat then developed a set of more detailed proposals for consideration. These were summarized in a document issued for the first meeting of the Task Force⁸ and elaborated in considerably more detail in a series of working papers⁹ which outlined the proposals for action and contained specific questions and issues for discussion on each proposal. These working papers are available on the HSTF website. Each of the proposals crafted by the Secretariat is designed in some way to sharply increase the risk of exposure of IUU operations and the potential for successful interdiction, increase operating costs of IUU activities, or reduce revenues from IUU fishing.

Each of the proposals is elaborated in detail in the working papers. In the form in which they were adopted by the members of the HSTF, they are also summarized in the annex to the present paper. The emphasis in the proposals is very much on better enforcement and on leading by example.

The first of the core proposals is to strengthen the existing voluntary MCS Network so that there is a more effective flow of information and intelligence about high seas fishing activity. Ultimately, what is needed is a fully-resourced Network with dedicated financial resources, analytical capacity and the ability to provide training and technical assistance to all MCS practitioners and especially those in developing countries. Such a dedicated international resource would be able to act as a central communications hub for the exchange of information between national enforcement authorities as well as a reference point for the collection and analysis of intelligence. It would add significantly to national enforcement capability and would sharply increase the likelihood of successfully detecting and interdicting IUU fishing activity on the high seas.

The second core proposal is designed to overcome one of the greatest obstacles in the battle against IUU fishing; namely the lack of access to transparent and unbiased information about the ownership and control of fishing vessels. To help overcome this problem, it is proposed to establish a publicly-available international database of information relating to the global high seas fishing fleet. The database would draw together information presently available from a range of sources, including shipping registries, national and regional vessel registers, insurance records and corporate records in order to build up a catalogue of objective and impartial information on the characteristics, current and previous ownership and operations of high seas fishing vessels. Information held on the database would thus become a critical resource for

⁷ HSTF/02, *ibid.*

⁸ HSTF/03, *ibid.*

⁹ HSTF/04 to HSTF/09, *ibid.*

national enforcement authorities, port authorities, RFMOs and other sectors involved in the fishing industry.

To help tackle the problem of flag States that fail to live up to their international responsibilities, it is proposed to prepare guidelines on flag State performance with respect to high seas fishing vessels. In effect, the HSTF would be endorsing a statement of best practice for flag States of high seas fishing vessels. What constitutes best practice is reflected in various international fisheries instruments. The problem is that many flag States simply do not apply these standards. As well as providing powerful political endorsement of the global standards, the guidelines adopted by the HSTF may also be used as criteria against which to evaluate flag State performance and give publicity to flag States that fall short of international standards.

The concept of “Responsible Fisheries” as a set of principles and international standards of behaviour for responsible practices is well established and is reflected in the FAO Code of Conduct for Responsible Fisheries. Given that there is broad agreement that the active use of port State powers can be an effective weapon against IUU operations, it is proposed that HSTF members promote universal acceptance of the notion of the “Responsible Port State” as a port State which is committed to making the fullest possible use of its jurisdiction under international law in furtherance of its own rights and interests as well as the international community’s interests in sustainable management and conservation of high seas marine living resources.

One avenue for increased control over the activities of IUU vessels may be found in requiring governments to take greater responsibility for the activities of their own nationals within the context of regional regulation of high seas fisheries, irrespective of the flag carried by the fishing vessel involved. Making the activities of citizens abroad liable to domestic sanctions is a powerful disincentive that would not only enhance the effectiveness of other HSTF measures but also send a strong signal to other potentially willing countries. This is an issue that has been taken up in recent international fisheries instruments, including the IPOA-IUU Fishing.

The analysis by the Secretariat suggests that, overall, the lack of strong and effective governance of high seas fisheries lies at the core of international fisheries problems, including IUU fishing. The final set of proposals therefore includes strategies for improving high seas governance within existing institutional frameworks (primarily RFMOs) so as to reduce the incentives and opportunities for IUU fishing and suggests the adoption of a coordinated strategy to improve global and regional high seas governance.

Outcomes of the first substantive meeting of the High Seas Task Force

The first substantive meeting of the High Seas Task Force took place in Paris on 9 March 2005. As well as the detailed proposals prepared by the Secretariat, the HSTF was also provided with a preliminary analysis of the impacts of IUU fishing on developing countries based on the results of a study commissioned for the HSTF by the Department for International Development (United Kingdom). The outcomes of the meeting are set out in the annex. Essentially, the HSTF adopted the proposals placed before it and agreed on a suite of specific actions to develop the proposals further and begin the process of building a broader coalition of States in support of the work of the HSTF. The need for further work was also identified, particularly the need to carry out an analysis of trade-related measures so as to understand the marketplace-related measures currently being used by RFMOs, States, the

fishing industry, and non-governmental organizations to reinforce international fisheries conservation and management measures.

The next substantive meeting of the HSTF is planned for early in 2006. The purpose of that meeting will be for the HSTF to adopt its final report and agree on a way forward. In order for that to happen, the Secretariat will need to complete the bulk of the draft report during July, August and September 2005. The draft will then be circulated amongst the expert groups, HSTF members and officials in HSTF member countries late in 2005 in order to ensure that the analysis is rigorous and the conclusions unassailable. Subject to the availability of funding, and utilizing as far as possible the opportunities offered by the existing calendar of international meetings, it is proposed to convene a limited number of stakeholder consultations in different regions to thoroughly review and analyze the work of the thematic panels and provide a mechanism for introducing new ideas and perspectives to the debate. Each ministerial member of the Task Force will be asked to personally attend at least one consultative meeting in his or her region.

Conclusion

This HSTF is an attempt to develop an interlinked set of solutions to a complex global issue in a concerted and focused manner. The aim is to create a critical mass in favour of a small number of very specific recommendations resulting in a significant (and measurable) decline in overall global IUU activity and a positive outcome for global fish stocks. As such it represents a novel approach to an issue which has occupied a great deal of international attention. In contrast to the way in which measures designed to combat IUU fishing have been developed to date, the HSTF, with its strategic-level brief not limited by institutional or disciplinary boundaries, provides a unique opportunity to make a concerted attack on a form of organized crime which is largely going undetected by the broader community and which requires a coordinated, concerted and comprehensive approach by governments and the international community to ensure sustainable resource use and protection of the marine environment.

The search for points of leverage against IUU fishing proceeds against the reality that international law has underlined the status of the high seas as a global commons to which individual sovereign states have been universally assigned access together with national responsibility for enforcement. Attempts to avert a “tragedy of the commons” have of necessity been conceived as regional cooperative initiatives between those who choose to join them. The challenge is to bring into some sensible relationship a top-down assertion of rights with a bottom-up attempt at management for the collective good before virtually all international fish stocks are depleted.

The initial proposals developed by the HSTF are pragmatic and focused on action. The weight of our proposals is on measures that HSTF members can agree to immediately and implement without waiting for further multilateral agreement. This is in keeping with the underlying objectives of the HSTF, which are to identify and prioritize steps that are both analytically sound and politically achievable. None of the proposed measures would undermine multilateral processes and some could lend them new impetus. For example, the proposals relating to responsible port States are not only fully consistent with recent FAO proposals,¹⁰

¹⁰ FAO Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing, 2005.

but would in fact take the form of a demonstrated commitment to the implementation of the measures adopted by FAO. Where it is clearly beyond HSTF members alone to secure outcomes, as for example in the proposals relating to high seas governance, the proposals are couched as positions that HSTF members would commit themselves to develop further and advocate by way of a clear, united position in the regional fisheries organizations of which they are members and in other multilateral fora, such as FAO and the United Nations.

Obviously, implementation of the proposed measures will require an ongoing political and financial commitment by members of the HSTF. This means that the HSTF will need to give early attention to the question of how it could take forward the proposed measures during 2006 and beyond. Some measures, such as the establishment of a dedicated high seas MCS network, the global information system on high seas fishing vessels and guidelines on flag State performance will require the provision of immediate financial and human resources by one or more HSTF members. Other measures, such as the development of harmonized positions on future high seas governance arrangements, will require a suitable mechanism for policy development and coordination. In both cases, since obtaining broad support for the proposed measures is critical to their ultimate success, the HSTF members will need to adopt a clear strategy for continued support and advocacy for the measures and to further build a coalition of countries willing to implement them. Direction on these matters should emerge during the second half of 2005.

The establishment of the Task Force is also an indicator of an evolving role for the Round Table on Sustainable Development both as a catalyst for action by assembling networks at the highest level (Ministers, senior executives, NGO leaders and experts), and as a forum available to the global policy community to test new ideas and thinking.

ANNEX: SUMMARY OF OUTCOMES OF THE FIRST MEETING OF THE HIGH SEAS TASK FORCE¹¹

The following were the main conclusions and outcomes of the first meeting of the High Seas Task Force held on 9 March 2005. It was agreed that the next meeting of the HSTF should take place in February 2006. The purpose of that meeting will be to adopt the final report and recommendations of the HSTF and agree on a way forward. The need to elaborate the proposals in sufficient detail to enable them to be swiftly implemented following the publication of the final report was emphasized, as well as the need to obtain broad support for the measures and adopt a clear strategy for continued support and advocacy.

HIGH SEAS MCS

- HSTF members agreed that the existing MCS Network should be transformed into an international unit with dedicated resources, its own analytical capacity and the ability to provide training and technical support to fisheries enforcement agencies in developing countries.
- HSTF members agreed that the best way to progress the Network would be to build a coalition of like-minded countries and organizations that could potentially share the costs of and benefits from an enhanced MCS Network.

¹¹ The summary of outcomes is also published as document HSTF/10, available at <www.high-seas.org>.

- HSTF members directed the Secretariat to elaborate the steps that would be needed to transform the MSC Network and commence the coalition-building process by establishing a virtual working party drawn from like-minded countries.

GLOBAL INFORMATION SYSTEM ON HIGH SEAS FISHING VESSELS

- HSTF members agreed to establish a global information system on high seas fishing vessels in the form of a publicly-available international database of information relating to the global high seas fishing fleet. It was noted that this might form one of the core activities of the proposed MCS Network. However, in developing the proposal further it was suggested that the Secretariat also consider the feasibility of building on *Equasis*.

FLAG STATE PERFORMANCE

- HSTF members agreed to develop guidelines on flag State performance in relation to high seas fishing vessels that may be used as criteria for evaluating flag State performance. The proposed guidelines and an evaluation of the performance of flag States against them, would be considered and adopted at the next meeting of the HSTF in February 2006.

PORT STATE CONTROLS

- HSTF members agreed to promote the notion of a responsible port State as “a State that is committed to making the fullest possible use of its jurisdiction under international law in furtherance of its own rights and interests as well as the international community’s interest in conservation and management of high seas marine living resources.”
- HSTF members committed to acting as responsible port States.
- HSTF members committed to advocating the strengthening of port State control within RFMOs of which they are members.
- HSTF members decided to endorse the FAO Port State Model Scheme and agreed to actively promote its widespread application.
- As a practical demonstration of their commitment, HSTF members agreed to:
 - Commission an inventory and analysis of the current practice of States and RFMOs with respect to port State controls, which could then form a good basis for the development of the proposed FAO database on port State measures, to be kept updated by FAO; and
 - Take the initiative to adopt between themselves by 2006 an MOU on Port State Control which would require them to apply port State control for all foreign fishing vessels visiting their ports, regardless of the type of vessel, the type of fishing technique and the type of species that are to be landed.

CONTROL OVER NATIONALS

- HSTF members decided to endorse the recommendations of the IPOA-IUU Fishing relating to control over nationals and committed to implement these recommendations to the extent permitted by national law.
- HSTF members directed the Secretariat to conduct a more detailed analysis of how “long-arm” approaches based on the Lacey Act might be adapted to support enforcement of internationally-agreed conservation and management measures.

HIGH SEAS GOVERNANCE

- HSTF members agreed to take active steps to encourage participation by the key States mentioned in HSTF/09 in UNFSA.
- Recognizing that a key obstacle to improved governance is inadequate implementation of existing international fisheries instruments at the regional level, including lack of institutional standards, lack of coordination between regional bodies and inadequate harmonization of measures, HSTF members agreed to the following specific measures and positions that they will commit to advocate internationally:
 - HSTF members directed the Secretariat to conduct an assessment of the performance of high seas RFMOs against objective criteria (to be developed by the Secretariat) based on the standards established by relevant international agreements.
 - HSTF members agreed that they will support efforts to develop greater harmonization of measures between tuna RFMOs and that they will explore further the areas in which there is scope for better coordination between other related RFMOs, with a view to greater efficiency and consistency in conservation and management measures.
 - HSTF members agreed that they will support the idea of a mechanism for global oversight of RFMOs to promote a more systematic approach to the implementation of UNFSA, including through giving a greater role to the annual meeting of States Parties to UNFSA, and directed the Secretariat to prepare a more detailed proposal for consideration in February 2006.
 - HSTF members agreed that they will support initiatives to bring presently unregulated high seas fish stocks under international management.
 - HSTF agreed that the scope of application of the UNFSA should be expanded to include all high seas fish stocks.

PUBLIC EDUCATION AND OUTREACH

- Recognizing that an effective public education campaign will be an important factor in the development and implementation of the proposals, HSTF members agreed to develop a detailed plan by February 2006 which will draw attention to the problem of IUU fishing

on the high seas, the work of the HSTF and improve knowledge of the social, economic and environmental consequences of IUU fishing on the high seas.



Managing Tuna Fisheries in the Pacific: A Regional Success Story?

Sandra Tarte*

In 1979 the members of the then South Pacific Forum joined together in establishing a regional body, the Forum Fisheries Agency (FFA), to assist member countries develop and manage the oceanic fisheries within their national jurisdiction. The FFA has since overseen and coordinated the implementation of national and regional initiatives to enable member countries to manage, conserve and use their tuna resources. In addition, the Secretariat of the Pacific Community (SPC) has played a crucial role in fisheries management and conservation through its fisheries science, data collection and monitoring programs. Assessments of regional cooperation in the Pacific islands have often identified cooperation in oceanic fisheries as a shining example of successful Pacific islands cooperation. The purpose of this paper is to first examine the areas where these assessments are substantiated and demonstrated. Second, this paper identifies the various factors that have facilitated successful cooperation in this area. Third, the paper highlights the factors that undermine or weaken cooperation or the effectiveness of cooperation in fisheries. It suggests that while the fisheries sector provides good insights into the reasons behind successful cooperation, it also reveals some of the weak points and challenges confronting cooperation in the Pacific islands region.

Keywords WCPFC, UNFSA, FFA, highly migratory fish stocks, tuna

Introduction

Tuna has long been recognized as one of the most commercially valuable resources in the Pacific islands region. The waters of the Pacific islands region, covering an area of around 50 million square kilometres or over ten per cent of the Earth's surface, are among the most productive tuna fishing grounds in the world. These provide around one third of the world's tuna supply to global consumers and are an important (in some cases crucial) component of the food security and development prospects of the Pacific island communities.

In 1979 the members of the then South Pacific Forum joined together in establishing a regional body to assist member countries develop and manage the oceanic fisheries within their national jurisdiction, under the provisions of the United Nations Law of the Sea Convention.¹ The focus of this regional effort was the transboundary fish stocks, dominated by four tuna species – skipjack, yellowfin, bigeye and albacore tunas – that occurred within the island states' 200 nautical mile exclusive economic zones (EEZs). This regional body, the South Pacific Forum Fisheries Agency (FFA), has since overseen and coordinated the implementation of national and regional initiatives to enable member countries to manage, conserve and use their tuna resources. In addition, the Secretariat of the Pacific Community (SPC, formerly the South Pacific Commission) has played a crucial role in fisheries management and conservation through its fisheries science, data collection and monitoring programs.

* *History/Politics Department, University of the South Pacific, Fiji.*

¹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, entered into force 16 November 1994, 1833 *United Nations Treaty Series* 3.

Assessments of regional cooperation in the Pacific islands have often identified cooperation in oceanic fisheries as a shining example of successful Pacific islands cooperation. The FFA has been described as the “most successful intergovernmental agency” in the region.² The Eminent Persons Group Review of the Pacific Islands Forum highlighted the “Forum’s substantial influence in Law of the Sea negotiations” as evidence of the Forum’s power in the world community when its members “speak clearly with one voice”.³ It also described the FFA as having “successfully harnessed regional energies in resource management and conservation”. In a recent exchange with University of the South Pacific journalism students, the Forum Secretary-General highlighted the work of the FFA as an obvious example of the “enormous practical value to Pacific island countries” of the Pacific Islands Forum. He referred specifically to the economic benefits that have accrued from regional cooperation – such as improving the return on their fisheries resource.⁴

The purpose of this paper is to first examine the areas where these assessments are substantiated and demonstrated; that is the practical and political achievements of regional cooperation in the oceanic fisheries sector. Second, this paper identifies the various factors that have facilitated successful cooperation in this area. Third, the paper highlights the factors that undermine or weaken cooperation or the effectiveness of cooperation in fisheries. It suggests that while the fisheries sector provides good insights into the reasons behind successful cooperation, it also reveals some of the weak points and challenges confronting cooperation in the Pacific islands region.

Regional achievements

On 19 June 2004, a historic international agreement entered into force. This is known for short as the Western and Central Pacific Fisheries (WCPF) Convention and is the product of seven years of formal negotiation between the member states of the FFA and the various fishing states, entities and other coastal states in the Western and Central Pacific region.⁵ The negotiation process was unprecedented in that it brought together for the first time Pacific island states and their powerful fishing state partners in an effort to establish a broad-based regime for the management and conservation of the region’s tuna fisheries on a stock-wide basis.⁶

The Convention is highly significant from a regional perspective. It will establish for the first time catch and effort limits for the region’s transboundary (tuna) stocks, thus avoiding the threat of overexploitation and possible collapse of the fisheries.⁷ A Commission to be established in the Federated States of Micronesia will have powers to make legally binding decisions so as to ensure the effective enforcement of conservation and management measures.⁸ The Convention explicitly

² R. Crocombe, *The South Pacific* (University of the South Pacific, 2001), 603.

³ See Eminent Persons’ Group, *Review of the Pacific Islands Forum*, April 2004.

⁴ G. Urwin, Transcript, University of the South Pacific Journalism Briefing, 29 April 2004.

⁵ The full title is Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. The Convention was adopted in Honolulu in September 2000. Since then a Preparatory Conference has laid the groundwork for its entry into force.

⁶ They are Canada, China, France, Indonesia, Japan, Korea, Philippines, Taiwan (Chinese Taipei), and the United States. The European Community is an observer.

⁷ According to latest assessments made by the SPC’s Oceanic Fisheries Programme, skipjack and South Pacific albacore tuna are currently being fished well within their exploitation potential. For yellowfin and bigeye, the indications are that these stocks may be approaching an overfished state, particularly in the equatorial regions.

⁸ Since writing, the Commission has held its first Session, in December 2004.

recognizes the sovereign rights of Pacific island coastal states to their in-zone fisheries, and it also makes provision for meeting their special needs and requirements.

From a global perspective the Convention is also highly significant. The new Commission will be the largest international fisheries management organization so far created in terms of the resources to which it applies. It is the first international fisheries management arrangement to explicitly include important new principles of responsible fisheries management adopted by the global community (including the precautionary approach, ecosystem approach and protection of biodiversity). It includes more comprehensive provisions than any other arrangement to deter illegal, unreported and unregulated fishing on the high seas. Finally, it includes elements of what has been described as a “new deal” for developing countries, including recognition of their right to participate in high seas fisheries.⁹

The initiative to negotiate this Convention was taken by the FFA members and its successful conclusion was largely due to the regional solidarity achieved and maintained by the Pacific island states. Throughout the process, the FFA provided invaluable logistical, technical and policy support and its decision making body, the Forum Fisheries Committee (FFC), provided the vehicle for articulating Pacific island collective positions within the negotiations.¹⁰ In this process, the FFA members were able to capitalize on already established regional arrangements for compliance and enforcement purposes, which the new regime will essentially build on and expand. These include the first international vessel register (and blacklist), which is operated by the FFA, and the first international satellite-based vessel tracking system (vessel monitoring system or VMS). The FFA also administers a regional observer programme under the provisions of a multilateral access treaty with the United States.

One of the most fraught issues in the negotiations, and one which the new Commission will need to address, is the allocation of fishing rights within the Convention Area. From the Pacific island perspective, it is imperative that the Commission not diminish or weaken their rights to determine allocation within areas under their national jurisdiction. Again, existing regional arrangements (namely the Palau Arrangement for the management of the purse seine fishery) provide a basis, shaping the new regime by providing a formula for determining the allocation process. The Palau Arrangement is an agreement among the Parties to the Nauru Agreement (PNA), a sub-regional group within the FFA, to control purse seine effort by providing a limit on the number of purse seine vessels that may operate in the waters of the Parties. This currently accounts for 84 per cent of the purse seine effort in the entire Western and Central Pacific region.¹¹

Another important element of the new Convention is the provisions for the Commission to receive high quality scientific advice and for maintaining the integrity of that advice. Indeed, this is

⁹ This “new deal” developed out of the Agenda 21 program of action for sustainable development and was embodied in the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (referred to in this paper as the UN Fish Stocks Agreement).

¹⁰ A history of the negotiations leading to the adoption of the Convention in 2000 is in S. Tarte, ‘A Duty to Cooperate: Building a Regional Regime for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific’, 16 *Ocean Yearbook* (2002) 261-299.

¹¹ The parties to the Palau Arrangement have recently agreed to a major revision in the Palau Arrangement, moving from a system of limiting the number of licences (by flag) to limiting the number of days a purse seiner is at sea and in the EEZ of a Party.

regarded as the key to successful management and conservation. The basis for this science is already established at the SPC, in its Oceanic Fisheries Programme (OFP). This maintains what is probably the largest international fisheries database in the world, including records of most of the fishing conducted in the region over the past 25 years. This database, and the associated science and monitoring programmes, provides the basis for high quality stock assessments that will be central to the decisions made by the Tuna Commission.¹²

The above points have stressed the achievements of regional cooperation from the perspective of the region as a whole. But how has regional cooperation impacted at the national level? In particular, how has regional cooperation addressed the national development aspirations of Pacific island states?

Traditionally, Pacific island countries have sought to achieve economic benefits from foreign licensing arrangements. This reflected the overwhelming dominance of distant-water fishing nations in the harvesting of the region's tuna resources, and the limited domestic fishing capacity in the region. Initial regional efforts, mainly adopted by the sub-regional PNA grouping, sought to establish a coordinated approach to licensing distant-water fishing nations, with the aim of improving the economic returns from access agreements. Despite implementing an impressive range of measures (including harmonized minimum terms and conditions of access and the Palau Arrangement for the purse seine fishery) fundamental economic gains have proved elusive. This applies especially to improvements in the rate of return for access.¹³ An exception to this are the gains generated from the US Tuna Treaty, renegotiated by the FFA members and the US in 2002 and extended for a further ten years (2003-2013). The revised Treaty provides an increased annual payment of US\$21 million for access of up to 45 purse seine vessels (although the actual number of US vessels fishing in the region is only 21).¹⁴

Because of disappointing returns from foreign licensing arrangements, FFA members are increasingly looking towards domestically based fisheries to increase economic benefits. Despite facing underlying constraints,¹⁵ domestic industry development in FFA member states has been encouraged in recent years, in part by initiatives undertaken by the FFA.¹⁶ These include development of national tuna management plans which help countries clarify development goals and provide a policy, legal and economic framework on which a sustainable and locally based

¹² It is expected that most of the scientific services for the Commission will be contracted out to the OFP.

¹³ Estimates of total fees remain at around US\$60 million per annum, around five per cent of the landed value of the catch. Newly negotiated agreements with the European Union provide a rate of return greater than the five per cent norm.

¹⁴ This would give a rate of return of close to 20 per cent of catch value.

¹⁵ These include credit availability, fuel cost, low levels of entrepreneurial fisheries skills, low attractiveness to investors and excessive government charges and blockages: R. Gillette, *Domestic Tuna Industry Development in the Pacific Islands: The Current Situation and Considerations for Future Development Assistance*, FFA Report 03/01 (2003).

¹⁶ In recent years there has been an expansion in locally based fleets. Under a regional multilateral access treaty – the Federated States of Micronesia Agreement – distant-water fishing vessels are encouraged to base locally. In 1999, there were seven vessels operating under this arrangement, that landed 39,000 tonnes and paid fees of \$579,400. In 2002, there was a considerable increase in activity, with 17 vessels landing 114,000 tonnes and paying fees of \$2 million: I. Cartwright, *The Oceanic Fisheries of the Western and Central Pacific*, Progress Report, Strategic Action Programme of the Pacific Small Islands Developing States (Secretariat of the Pacific Community, Noumea and Forum Fisheries Agency, Honiara), 29.

industry can be established.¹⁷ As part of this process, the FFA is also assisting countries to identify and address the institutional reforms they will need to implement with the entry into force of the WCPF Convention.¹⁸

It is expected that the establishment of the new regime will be an incentive for more distant-water fishing fleets to base themselves in the Pacific islands region. The benefits generated by domestic-based tuna fishing operations are still the subject of analysis, but are seen to derive from employment generation, revenues from shore-based processing and other industry activity, and increasing exports. With the coming into force of the WCPF Convention, which will limit membership and establish overall catch and effort limits on the region's tuna fisheries, there is likely to be greater incentive for foreign fleets to secure long-term fishing arrangements with FFA members, to avoid being 'shut out' of the region fisheries. This will likely accelerate the shift by distant-water fleets towards FFA-based fishing operations (both purse seine and longline). In other words, the WCPF Convention will provide Pacific island states with increased leverage in attracting development opportunities in the fisheries sector.

Reasons for successful cooperation

What has sustained fisheries cooperation over the past twenty-five years and, at crucial times, contributed to its important achievements? Most explanations start from the premise that that this area or sector constitutes an 'ideal context' for regional cooperation. As Crocombe puts it: "Fish [i.e. tuna] and fishing boats migrate across national boundaries, so cooperation is essential. Many functions are suited to central control and concentrated expertise in international marine law, negotiating access agreements, international marketing agreements, marine surveillance etc. No nation can afford the expertise which FFA provides".¹⁹ In other words, Pacific island countries share a common, transboundary marine resource that makes cooperation both necessary and worthwhile.

Beyond this, though, there are a range of factors that have motivated, encouraged and facilitated cooperation. Of crucial importance has been the development of global regimes that provided the legal and political impetus for cooperation. These include, first, the UN Convention on the Law of the Sea that preceded the formation of the FFA, and second, the UN Fish Stocks Agreement that preceded the negotiation of the WCPF Convention. The former was regarded by Pacific island states as an historic opportunity to claim rights to the tuna resources within their waters (and led directly to the formation of the FFA). The latter formalized a duty to cooperate (with fishing states) in the management and conservation of the resources, as well as calling for sustainable fisheries in the region. It provides the framework for the WCPF Convention and the soon-to-be established Tuna Commission.

A second contributing factor has been the (perceived) existence of a common threat to Pacific island countries – primarily to the exercise of their sovereign rights to exploit and manage the tuna resources within their EEZs. This threat was initially in the form of fishing nation refusal to either recognize sovereign rights (e.g. the US) or give them substance (in the negotiation of bilateral

¹⁷ *Ibid.*, 30.

¹⁸ These reforms include finding new ways to fund expanded fisheries management programmes, such as through establishing statutory fisheries authorities funded by fishing fees.

¹⁹ Crocombe, *supra*, 604.

access agreements). As a way of enhancing the individual bargaining power of the island states vis-à-vis fishing nations, regional diplomacy was established and utilized – initially via the sub-regional Parties to the Nauru Agreement (PNA). This (perceived) threat was also prevalent throughout the negotiations leading to the conclusion of the WCPF Convention. If anything kept the island states motivated and engaged in the process (but also apprehensive of its outcomes) it was a fear of losing control over their resources through the establishment of an all powerful fisheries management regime dominated by distant-water fishing nations.

A third contributing factor has been the existence of a different kind of threat – that of resource depletion. For example, this concern motivated collective efforts to ban the use of long driftnets in the region that were seen as a threat to the region's albacore fishery.²⁰ This threat, and the need to ensure long-term sustainability of the region's tuna fisheries, was also one of the underlying rationales for the negotiation of the UN Fish Stocks Agreement (where FFA members played an active part) and the WCPF Convention. However it is important to note that in the context of WCPF negotiations, concern about potential resource depletion has often been a 'political football', used by both fishing nations and FFA member states to promote different/conflicting interests and agendas.²¹ Pacific island States, themselves, have sometimes shown less concern about resource depletion when it appears to compete with the goal of maximizing economic returns from the fisheries (including developing their own fishing capacity).

A fourth factor that has helped promote solidarity in this area is the extent to which regional cooperation has been islander-driven. The establishment of the FFA and the PNA was initiated by Pacific island states, not their metropolitan neighbours or partners. The FFA has been, for the most part, islander-led, although its staff comprises a mix of nationalities. This factor was crucial to ensuring ownership over the process of cooperation and the regional initiatives that were taken, such as the US Multilateral Treaty negotiations which were largely driven by the then Director of the FFA. It was also crucial to ensuring that benefits of cooperation primarily accrued to the Pacific island states. It is notable that where outside pressure, including Australian and New Zealand pressure, have been brought to bear, there has been less willingness to cooperate or comply with regional initiatives.²²

At the same time, regional cooperation has proved effective where there is a harmony or convergence of interests between the Pacific island states on the one hand and key metropolitan states on the other (boosting the group's political clout and leverage). This was evident with the negotiation of the US Multilateral Treaty, for example, where US strategic interests converged with

²⁰ The Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific (the Wellington Convention) was adopted by the South Pacific Forum in 1989. The United Nations subsequently adopted a global moratorium on driftnetting. Details are in S. Tarte, *Japan's Aid Diplomacy and the Pacific Islands* (National Centre for Development Studies and Institute of Pacific Studies, 1998), 130-5.

²¹ This is reflected in current debates within the Preparatory Conference over the need to adopt immediate fishing capacity limits (to deal with threats to the bigeye and yellowfin stocks). While some fishing nations are calling for capacity limits to be developed as soon as possible (based on current fleet distribution), FFA members have instead emphasized the need for stronger monitoring and compliance programmes, especially on the high seas.

²² Australia and New Zealand, as members of the FFA, have been mindful of the importance of not appearing to dominate this regional process. However there have been occasions when they have asserted their positions, in the face of resistance from the island states. One occasion was in the formative phase leading up to the negotiations for what would become the WCPF Convention. Pacific island states clearly preferred to develop an in-zone management regime before embarking on negotiations with distant-water fishing nations for a high seas management regime. This was opposed by Australia and New Zealand and the two approaches were essentially combined.

the fisheries interests of the FFA group. It has been evident in certain aspects of the negotiations for the WCPF Convention. The US, Canada, Australia and NZ have sided with the island states on key issues against the Asian fishing nations – namely the enforcement and compliance provisions, as well as on science issues and the precautionary approach. This helped ensure that the negotiations did not water down or weaken principles of conservation and management enshrined in the UN Fish Stocks Agreement.

Finally, it is clear that regional cooperation has been boosted by the fact that its focus is a resource of global consequence. Tuna is perhaps the only resource in the region that does command the attention of the global community. The economic importance of the tuna stocks has attracted growing interest from outside the region. While this has led to concerns about potential resource depletion, it has also helped to enhance the leverage of the Pacific island countries in negotiating with fishing nations. At the same time, because of the global significance of this resource, international support for regional efforts to manage and conserve the fisheries has been forthcoming. One example of this support has been the financial contributions of the Global Environment Facility (GEF) to the FFA and OFP to promote and enhance tuna management arrangements both at the national and regional levels.²³

The pitfalls and problems of regional cooperation

Past achievements of regional cooperation in the fisheries sector may be attributed to a range of factors, some of which are highlighted above. But successful cooperation rests ultimately on the commitment by members to adopt and abide by common policies. Conversely, the limitations and failings of cooperation are largely due to a lack of commitment on the part of individual members to implement policies. What shapes this commitment? The following points highlight some of the factors that impede or hinder cooperation.²⁴

There is a perceived conflict between the sovereign rights of member states and the various regional arrangements and agreements. This may be rephrased as a perceived conflict between the national interests of individual members and collective action undertaken by the group. This is evident in the way Pacific island states have continued to negotiate access agreements on a bilateral basis rather than develop a harmonized or joint approach to setting access fees. Moreover, some FFA members have licensed foreign vessels in contravention of regional agreements (such as the minimum terms and conditions of access). Although there are clear gains to be had from regional approaches (demonstrated by the US Treaty), countries are unwilling to forgo the access fee revenue and associated aid from bilateral arrangements.²⁵

Related to the above is the notable absence of mutual trust and confidence between members. This may seem strange after twenty-five years of cooperation through the FFA and PNA, but countries

²³ The GEF provided US\$2.5 million to the FFA and OFP during the Preparatory Conference phase. The groundwork for the provision of a much larger GEF contribution (US\$8.5 million) to support implementation of the WCPF Convention by Pacific island states is currently being laid.

²⁴ These observations have been made by senior officials from the fisheries departments/ministries of various FFA member states in interviews with the author in the course of undertaking several regional fisheries consultancies (including a review of the sub-regional group, the Parties to the Nauru Agreement).

²⁵ It needs to be acknowledged, though, that most distant-water fishing nations have preferred to develop individual negotiating strategies for each coastal state and have resisted any moves towards a common or centralized licensing system.

are still reluctant to share information and openly discuss issues of concern (such as the terms and conditions of bilateral access agreements). There is a tendency to perceive each other as rivals or competitors rather than allies in a common cause. This lack of openness and trust is also evident in relations between the PNA and non-PNA members of the FFA.²⁶ The recent move by the PNA to review the management of the purse seine fishery under the Palau Arrangement, without prior consultation with other FFA members, has deepened the tensions between the two groups.

National rivalry and ambition came to the fore during the process for nominating a country as headquarters and host of the Tuna Commission to be established under the WCPF Convention. Due to the absence of consensus within the FFA group, and the protracted decision making that ensued, the FFA group was at risk of losing the opportunity to host this important fisheries organization. (It is still an open question whether or not the Commission headquarters will in fact function out of the Federated States of Micronesia capital.)

A third factor that shapes commitment to regional endeavours is high-level political engagement in, and awareness of, regional initiatives. According to many officials, this is often lacking and leads to a failure to follow through at national level with regional undertakings. Many countries are plagued by unstable government, leading to frequent turn-over in ministerial posts and to a disjuncture between undertakings by officials and the understanding and support of their ministers. This may stall (if not halt) the implementation of policies already agreed to by a previous government. In addition, there are no regular Forum Ministerial meetings on fisheries or ocean policy (unlike other sectors) and the Forum Leaders' summits rarely spend much time discussing this area. This lack of high level political involvement is striking given the widely acclaimed global, regional and national importance of the tuna fishery.

Also striking, in view of the economic importance to many countries of the tuna industry, is the low priority this sector receives from governments. Regional initiatives (whether they are implementing management and conservation measures, negotiating with distant-water fishing nations in the Preparatory Conference, or simply attending meetings of the FFC) require national capacity to support and implement. This capacity is severely lacking in many countries (including those with the greatest reliance on tuna fisheries). This refers to human capacity as well as technical and infrastructure capacity. Part of the problem, historically, is that revenue generated by the tuna industry has not been used to build up this capacity but instead has been channelled into government coffers to be used to support other sectors.²⁷ Governments have also not prioritised training in this area (by allocation of scholarships for example) contributing to the lack of fisheries management or science capacity in the region. This in turn leads to over-reliance on the (often over-stretched) regional bodies, especially FFA.

²⁶ PNA members are Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu – the countries where most of the tuna fishing activity is concentrated. Non-PNA members of the FFA are Cook Islands, Fiji, Niue, Samoa, Tonga, Tokelau and Vanuatu (and Australia and New Zealand).

²⁷ This problem may be alleviated somewhat with the move to establish statutory or parastatal fisheries administrations in a number of countries. These reforms should also lead to increased participation in policy making and implementation by various industry stakeholders (including the private sector).

Concluding remarks

After twenty-five years of fisheries cooperation, the region now stands at a crossroads. In some respects the establishment of the Tuna Commission under the WCPF Convention completes a process begun with the formation of the FFA. The Convention establishing the FFA recognised the need for ‘additional machinery’ to facilitate cooperation between fishing nations and coastal states, in keeping with what became Article 64 of the UN Convention on the Law of the Sea. Although it was not possible to establish such a regime at the time, that ‘additional machinery’ is now in place. With that come new challenges for the FFA member states.

It is clear that with the WCPF Convention, national responsibilities (in terms of fisheries management and conservation) will be much greater. The regional bodies (FFA and SPC) will be increasingly called on to help build national capacity to support these responsibilities, as well as to fill the gaps that currently exist. It is also clear that despite the past (and continuing) emphasis on regional approaches to tuna management and conservation, little will be achieved without effective domestic policies.²⁸ It can therefore be argued that the interface between national and regional activity will be more important than ever before.

The establishment of the Tuna Commission will also put new demands on the regional fisheries bodies (FFA and the Oceanic Fisheries Programme of SPC). Member countries will need to define a new balance between meeting their national/regional needs and those of the wider WCPF Convention. They will also need to ensure that adequate resources are forthcoming (preferably from the region’s fishing nations and development partners) to support these wider roles and increased demands.

Perhaps the most pressing challenge, though, will be a political one. As one fisheries official put it, the region is now entering a ‘new ball game’ as far as management of the tuna resource is concerned. This will require cooperating and collaborating with fishing states that traditionally have been at odds with the FFA member states. It is already clear that fishing nations will seek to impose their preferred management measures on the region and to oppose measures adopted by the FFA states (rather than the Commission). In this context, the FFA group must be prepared for some hard bargaining within the Commission and to be both proactive and coordinated in their approach.

If the Pacific island states are to continue to reap the benefits of twenty-five years of cooperation in fisheries, what is ultimately required is greater political commitment to carry this cooperation forward. There is much rhetoric to indicate support for this. Now is the time to translate this rhetoric into meaningful action.

²⁸ Cartwright, *supra*, 30.



[Comment]

International Enforcement Cooperation in the North Pacific

John Davis*

Multinational cooperation is essential in enforcing conservation of fisheries over the vast distances of the ocean. This article describes how United States cooperation with Russian and Chinese authorities, principally through the North Pacific Anadromous Fish Commission (NPAFC), has achieved a steep drop in illegal driftnet fishing in the North Pacific from a high in 1998 of 24 known vessels to virtually no known IUU fishing over the past few years. It is suggested that this success may be reason to use NPAFC cooperation as a model for other fisheries.

Keywords IUU fishing, driftnet fishing, enforcement, North Pacific

Introduction

The consequences of illegal, unreported and unregulated (IUU) fishing are well known: the continued and further depletion of the world's fish stocks, natural resources and food reserves. Several legal instruments have been developed in recent years which seek to address this problem. Nevertheless, in practice preventing IUU fishing on the high seas is a daunting task. Vast areas of ocean to monitor, which may include different jurisdictional zones, enforcement resource limitations and the sheer number of fishing vessels plying the seas combine to create substantial practical problems. This means that effective enforcement essentially requires the cooperation of different States: if the authorities of different countries work together and unify their enforcement efforts, the effort against IUU fishing can be intensified. A current example of this sort of international cooperation occurs through the North Pacific Anadromous Fish Commission (NPAFC). The cooperation, planning and commitment of enforcement resources by all member states of this organization could well be a model for other regional fisheries management organizations to follow.

The Convention for Conservation of Anadromous Stocks in the North Pacific Ocean, signed in February 1992 and in force since February 1993, created the North Pacific Anadromous Fish Commission to promote conservation of anadromous stocks – i.e. fish that are born in fresh water, migrate to the ocean to grow as adults, and then return to fresh water to spawn – as well as ecologically related species in the North Pacific.¹ The Commission has five contracting parties:

* Chief, Fisheries Enforcement Division, US Coast Guard. This article is based on an earlier version, which appeared in 'Overfishing: A Global Challenge', *Economic Perspectives*, Vol. 8, No. 1, January 2003, <usinfo.state.gov/journals/ites/0103/ijee/toc.htm>.

¹ The text of the Convention is reproduced at <www.intfish.net/treaties/npafc.htm>. There appears to be very little literature on this Commission in the legal journals. See, however, the NPAFC website, which contains detailed information: <www.npafc.org>. On enforcement cooperation under the predecessor Commission, see V. M. Walsh, 'Eliminating Driftnets from the North Pacific Ocean: US-Japanese Cooperation in the International North Pacific Fisheries Commission, 1953-1993' 29 *Ocean Development and International Law* 295 (1998).

Canada, Japan, the Republic of Korea, Russia and the United States.² In addition to general cooperation in the conservation and management of anadromous fish stocks, considerable attention has been paid since the Commission came into operation to the issue of driftnet fishing and the implementation of the 1989 and 1991 United Nations General Assembly Resolutions on large-scale high seas driftnet fishing, which recommended an international moratorium on the use of driftnets greater than 2.5 kilometres in length.³ These so-called “curtains of death” have a devastating impact on marine life, from whales to sea birds to the anadromous species that the North Pacific Anadromous Fish Commission was chartered to conserve.⁴

The Commission is the only relevant organization in the region whose charter specifically addresses enforcement agency interoperability. The cooperative enforcement efforts of the parties have been successful in reducing illegal fishing operations within the Convention Area⁵ from the 1998 high of 24 known vessels to virtually no known IUU fishing over the past few years. This type of multinational enforcement cooperation is the key to future protection of the world’s natural resources.

Planning and coordination of enforcement activities

Planning and coordination of enforcement activities within the Convention Area is the responsibility of the Committee on Enforcement.⁶ This committee holds annual workshops to coordinate patrol activities and to confirm notification procedures in the event that illegal fishing activity is discovered. The results of these workshops are evident during the peak fisheries period for high seas driftnet enforcement operations. Canadian CP-140 and US Coast Guard C-130 aircraft deploy out of Alaska to patrol the Convention Area, frequently with enforcement agents of the US National Marine Fisheries Service on board. Furthermore, during the Canadian CP-140 deployments, a Canadian Department of National Defence officer also works out of the US Coast Guard office in Juneau to coordinate patrols and response to sightings.

Enforcement interoperability of the parties was further enhanced in 2001 when a Joint Operations Information Coordination Group was established to exchange enforcement-related information for

² All except the Republic of Korea were original signatories to the Convention and became members of the Commission in 1993. Korea acceded to the Convention on 27 May 2003, and so its participation in the Commission is not covered by this article.

³ See United Nations Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing and its Impacts on the Living Resources of the World’s Oceans and Seas; and United Nations Resolution 46/215 on Large-Scale Pelagic Driftnet Fishing and its Impacts on the Living Resources of the World’s Oceans and Seas. In support of these resolutions, the United States enacted The High Seas Drift Net Enforcement Act.

⁴ For an overview of the legal history of driftnet fishing, see – from an expansive literature – E. Hey, W. T. Burke, D. Ponzoni, K. Sumi, *The Regulation of Driftnet Fishing on the High Seas: Legal Issues*, FAO Legislative Study No. 47 (FAO, 1991); W. T. Burke, M. H. Freeburg, E. Miles, ‘United Nations Resolutions on Driftnet Fishing: An Unsustainable Precedent for High Seas and Coastal Fisheries Management’ 25 *Ocean Development and International Law* 127 (1994); and G. Hewison, ‘The Legally Binding Nature of the Moratorium on Large-Scale High Seas Driftnet Fishing’ 25 *Journal of Maritime Law and Commerce* 557 (1994).

⁵ The Convention Area is defined as “the waters of the North Pacific Ocean and its adjacent seas, north of 33 degrees north latitude beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.”

⁶ The Committee on Enforcement was established in 1994 for Parties to exchange information on any violations of the provisions of the Convention and on enforcement action. The Committee also assists the Parties in planning and coordinating enforcement operations to improve the effectiveness of high seas driftnet patrols.

protection of salmon resources and prevent high seas driftnet fishing in the Convention Area. The group comprises designated enforcement officials of each of the NPAFC parties. Coordination Group points of contact communicate with each other at least once each month to ensure open lines of communication and to coordinate dissemination of information with appropriate government agencies or entities.

Continual evaluation and improvement of enforcement activities was further enhanced with the establishment of an Enforcement Procedures Working Group in October 2002. This group has begun work on threat analysis and vessel profiling. The US Coast Guard has been the primary agency providing threat assessment information to the Enforcement Committee, using past fishing activity, market conditions, political factors and deterrent measures to determine the threat level in the Convention Area for each year. The Coast Guard has also developed a CD-ROM for all parties that contains photographs of research, enforcement and high seas driftnet vessels. The group is working towards integrating information from all parties into the threat assessments and vessel profiling data.

China provides ancillary enforcement support within the Convention Area, although it is not a signatory to the Convention. The Chinese cooperate with the United States by way of a 1993 Memorandum of Understanding (MOU) that established a boarding/shiprider agreement.⁷ This agreement provides non-flag State enforcement authority and establishes boarding procedures for law-enforcement officials of either country to board US- or China-flagged vessels suspected of illegal driftnet fishing on the high seas. The MOU allows Chinese fisheries enforcement officials to embark on US Coast Guard cutters during each driftnet season.

As a bilateral enforcement agreement, the MOU facilitates and expedites investigations of suspicious vessels when they are encountered on the high seas. Chinese shipriders have been based in Kodiak, Alaska, every year since 1994 and have been instrumental in a number of high seas driftnet boardings and seizures. These shipriders participate in Coast Guard C-130 high seas driftnet surveillance flights and deploy on Coast Guard cutters responding to high seas driftnet vessel sightings.

Successes in enforcement

Multinational enforcement cooperation by parties of the North Pacific Anadromous Fish Commission has enabled remarkable success in interdicting and deterring illegal large-scale high seas driftnet fishing. In 1998, four of 24 vessels suspected of such driftnet fishing sighted in the Convention Area were interdicted and seized by US Coast Guard and Russian Federal Border Service vessels. In 1999, three of 10 vessels suspected of illegal driftnet fishing sighted within the Convention Area were interdicted and seized through the coordination of Canadian, Russian, American, and Chinese enforcement resources. In 2001 only one vessel was sighted, interdicted and seized for illegal fishing operations in the Convention Area, and in 2002 none, although one vessel was detected fishing illegally just outside the Convention Area and inside the Russian 200-mile exclusive economic zone (EEZ). The Russian Federal Border Service interdicted that vessel.

⁷ Memorandum of Understanding Between the Government of the United States of America and the Government of the People's Republic of China on Effective Cooperation and Implementation of United Nations General Assembly Resolution 46/215 of December 20, 1991, signed in Washington DC on 3 December 1993.

The following cases demonstrate the international cooperation necessary to interdict and seize vessels engaging in illegal fishing operations in recent years:

On 18 April 1999, a Canadian surveillance aircraft observed a fishing vessel conducting large-scale high seas driftnet fishing operations approximately 500 nautical miles southwest of Attu, Alaska. The following day, the vessel was sighted with 10 miles of a net in the water. That information was passed to the US Coast Guard and the Russian Federal Border Service. On April 19, the Coast Guard Cutter Rush intercepted the vessel, identified as the Russian-flagged Lobana-1. During the boarding, seven tons of salmon were discovered. On 21 April, custody of the Lobana-1 was transferred to the Russian Federal Border Service vessel Brest for enforcement action.

On 25 April 1999, the Coast Guard Cutter Rush observed the Ying Fa, flying China's flag, conducting driftnet fishing operations approximately 800 nautical miles southwest of Attu. The Ying Fa was boarded under the authority of the US-China boarding/shiprider MOU with the assistance of a Chinese shiprider on the Rush. The boarding revealed 6.2 tons of salmon and a 10-mile driftnet. The master stated he intended to fish until 40–50 tons of salmon were caught. The government of China refuted the registration claim of the Ying Fa, and it was assimilated to a vessel without nationality, seized, and escorted to Adak, Alaska, for enforcement action under US law.

On 1 May 1999, a US Coast Guard C-130 surveillance flight observed the Tayfun-4 conducting large-scale high seas driftnet fishing operations 450 nautical miles southwest of Attu, Alaska. The Coast Guard Cutter Rush intercepted and boarded the Russian-flagged vessel on 3 May and discovered two tons of salmon. On 6 May custody of the Tayfun-4 was transferred to the Russian Federal Border Service vessel Barrs for enforcement action.

On 12 May 2000, the Coast Guard, with authorization from the government of Honduras, seized the Honduran-flagged fishing vessel Arctic Wind for illegal driftnet fishing within the Convention Area. At least three driftnets totalling 20 miles were left behind by the Arctic Wind and one whale was entangled in the net. The Arctic Wind was sold at auction for US\$226,600. More than half of the vessel's catch proved to be salmon from Alaskan spawning areas, as determined by National Marine Fisheries Service genetic testing.

On 16 May 2001, delegates from all parties attending the annual North Pacific Anadromous Fish Commission enforcement coordination meeting participated in the first high seas driftnet patrol flight of the Convention Area by a Coast Guard HC-130 aircraft patrol staged out of Petropavlovsk-Kamchatsky, Russia. A trawler converted into a driftnet-fishing vessel – later identified as the Russian-flagged Sakhfrakt-3 – was observed driftnet fishing 15 nautical miles inside the Russian EEZ just outside the Convention Area. The Russian Federal Border Service ship Dzerzhinsky was contacted and immediately diverted to intercept the Sakhfrakt-3. Upon boarding, the Federal Border Service found the vessel was equipped for driftnet fishing, having on board radio buoys, five driftnets with a combined length of 17 nautical miles, processing equipment and shipping boxes. The Dzerzhinsky directed the vessel to recover its driftnets, containing 1460 salmon. The Sakhfrakt-3 was escorted to Petropavlovsk-Kamchatsky and charged with multiple violations of Russian law. The master of the Sakhfrakt-3 had his license to fish suspended for three years and was fined 1.2 million roubles (approximately US\$41,000).

In 2002, Canadian surveillance flights detected three vessels matching the profile of a driftnet vessel. Investigation revealed that one of the vessels, the MYS Nord, was a large-scale driftnet

vessel operating just inside the Russian EEZ. Canada provided copies of the MYS Nord evidence package to the North Pacific Anadromous Fish Commission parties in May 2002. Russia conducted an investigation of the MYS Nord and found no evidence of high seas driftnet fishing, although it proposed to include the vessel in the NPAFC database of suspected large-scale high seas driftnet vessels.

Conclusions

Activity in the high seas driftnet high-threat area has been quiet since 2001. Although this may be due in part to deteriorating global salmon market conditions, aggressive enforcement coordination by North Pacific Anadromous Fish Commission parties and well-publicized interdiction successes over the past few years undoubtedly have been significant deterrents to illegal high seas fishing activity. This type of multinational enforcement cooperation is necessary to overcome the vast ocean distances and jurisdictional issues associated with illegal fishing on the high seas. The Commission continues to improve and refine its enforcement success and is an excellent model for other regional fisheries management organizations aiming to protect the oceans' valuable natural resources.

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[1] Current developments reporter

Special report

The Impact of the Indian Ocean Tsunami on Fisheries and Fisherfolk Livelihoods

The tsunami of 26 December 2004 ranks as one of the world's worst natural disasters in modern times. Caused by a massive earthquake off the coast of Sumatra, tsunamis surged through the Indian Ocean from the epicentre to reach 12 countries with devastating effect. An estimated 300,000 have been killed with several million livelihoods destroyed or severely compromised through the loss of homes and productive assets. Although exact figures are unlikely ever to be available, it is clear that the extent and scale of the damage is unprecedented.

A number of factors, both human and geographical, combined to elevate generally the levels of destruction in certain areas. Geographically, coastlines with low elevations, steep seabed slopes and an absence of coral reefs and other natural barriers such as islands combined to result in severe inundation along coastlines and further inland. Human factors were also at play, including the tendency for crowded settlements in the immediate vicinity of the shoreline, affecting tourist and fisher communities in particular, and – largely owing to the lack of historic precedent for such an event – disaster unpreparedness and an absence of damage mitigation planning, systems and structures.

The effects of the tsunami have fallen disproportionately upon poor people and in particular most severely upon poor fishing communities. Due to their location (i.e. proximity to the shoreline), an estimated one quarter of all fatalities relate to fishing communities, whilst loss of livelihood assets threatens both the immediate and future abilities of fisher households to earn income and sustain livelihoods. The implications are considerable. Prior to the tsunami, fisheries were of high social and economic importance in ...

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cont'd / ... virtually all of the countries affected. In all countries, fisheries represent an important source of employment, income and food in coastal communities, although the economic and social significance of fisheries for these countries extends far beyond those communities. In several cases, fisheries represent: a major contributor to the economy (for example in the Maldives, where fisheries contributed 9.3% to the GDP in 2004¹); a major source of employment within the economy (for example, almost 20% of the labour force in the Maldives are employed in the primary or secondary fisheries sectors); an important contributor to food security and the principal source of animal protein (for example, fish contribute 65% of the animal protein consumed in Sri Lanka, with 83% of the total quantity of fish consumed in the country produced in the coastal and off-shore fishing industry²); and a major contributor to foreign exchange earnings (second in most cases only to tourism).

When considering the impacts of the tsunami on fishing and aquaculture communities, the data currently available (which can only be regarded as highly provisional) suggests that direct impacts for the region as a whole are as follows:

- over 60,000 fatalities in the fisheries sector, with unknown figures for the losses sustained in gypsy fishing communities and seasonal fishing communities;
- over 110,000 fishing vessels destroyed or damaged, a large percentage of them being small-scale vessels with an estimated replacement cost of more than USD 160 million;
- over 36,000 fishing vessel engines lost or damaged beyond repair, with an estimated replacement cost of more than USD 70 million;
- 1.7 million units of fishing gear destroyed, ranging from small-scale artisanal gears such as fish and crab traps, to industrial gears such as nets, with an estimated replacement cost of USD 86 million;
- other damages to the fisheries sector, such as to aquaculture (destruction of cages, loss or escape of stock) and infrastructure (fishing harbours and landing areas, ice plants and cold storages, and fuel and water tanks) with estimated repair costs in excess of USD 100 million;
- direct losses in the fisheries sector of around US\$ 420 million; and
- an estimated 1.5 million livelihoods of those involved in fishing and aquaculture are under threat.

The impact of the tsunami of course affected some sub-regions more than others and, within individual countries, the impacts of the tsunami were in some cases very localized, while in others they were felt along virtually the whole coastline. When considering the effects of the tsunami on the fishing and aquaculture industries in each of the affected countries, two key sets of factors determined the extent of impacts. Firstly, certain geographical features played a significant role in either exacerbating or diminishing the devastation, and secondly, the differing patterns and extent of fishing and aquaculture operations throughout the region largely determined the levels of industry damage.

Reflecting the impact generally, the fisheries sector in Indonesia – which suffered over 110,000 deaths and where more than 700,000 people have been displaced – has been severely affected, not least through the loss of fishers (an estimated 15-20% of fisher people have been killed in Northern Sumatra). Hardest hit has been northern Aceh, where 64% of the pre-tsunami number of fishers have been killed. Approximately 65-70% of the small scale fishing fleet and associated gear in Aceh province has been destroyed in the disaster, representing around 9,500 units. Widespread damage has also been reported for physical infrastructure, including ports, harbours and fish landing facilities. The Sri Lankan coast was one of the most heavily affected areas in the region and is second only to Indonesia in terms of fatalities (with over 30,000 people known to be dead and approximately 450,000 persons initially displaced and in urgent need of having their livelihoods rehabilitated). In the fisheries sector, more than 50 per cent of fishing vessels have been damaged

or destroyed and nearly 71,000 people in fishing households directly affected through death, displacement or damage. In other countries, damage to the fishing sector tended to be more localized but in many cases the local impact has been devastating. 85% of people affected in the Indian region of Tamil Nadu, for example, are from fishing communities. A summary of impacts on the fisheries sector by country is provided in the Appendix.

The impact on the fisheries sector gives rise to a number of sector-specific issues.

First, the loss or damage to fishing vessels poses a number of problems relating to their repair or replacement, not least in terms of availability of replacement vessels or materials to effect repairs. Particularly concerning the issue of wood availability for small-scale vessels, reconstruction may not be possible within the short term without recourse to unsustainable wood harvesting, and alternative materials such as fibreglass composite structure may not be suitable (due to the design and lightness of the vessels). A logistical issue relating to the damage of fishing vessels concerns the difficulties of recovering and re-floating vessels that were washed inland above the high tide mark. Further difficulties include the loss of infrastructure, e.g. destruction to slipways, delaying repairs to vessels until facilities have been repaired. In cases where fishers have lost boats, there is the potential for them to start using lower cost gears, such as bamboo traps, as a coping strategy, but this may diminish the opportunity for limiting the replacement of unsuitable fishing gears that were destroyed by the tsunami. Difficulties also present themselves in replacing lost fishing vessels with donated foreign vessels (a move currently being considered in a number of donor countries). FAO has warned that replacement vessels and equipment should match local customs, conditions and fishery productive capacities, in particular so as not to promote overcapacity when the fisheries are reinstated (see *Media digest* 1.7.4.3, in this issue).

In addition, it should be noted that the above figures on financial damage do not take account of indirect losses resulting from fishers being unable to fish and earn income. Fisheries and aquaculture activities contribute to the livelihoods of many millions of people in the affected region, providing full-time, part-time or occasional employment to those engaged in the sector and ensuring a form of subsistence or a means to earn income for fisher households. Fisheries and aquaculture therefore contribute to poverty alleviation at the household level, at the local level through the generation of multiplier effects both upstream (through the supply of inputs) and downstream (through processing and marketing) of production. At the national level, fisheries and aquaculture generate trade and foreign exchange and government revenue. The wider implications of the tsunami on the household, local and national economies will therefore be significant and particularly so for those countries dependent on fisheries and aquaculture as key sectors in the economy.

Fisheries are also a significant contributor to food security in the region, with fish products providing a valuable source of micro-nutrients, minerals, essential fatty acids and proteins. The average annual per capita consumption of fish is greater than 19kg in all the affected countries (except India and Somalia) compared to a world average of 16.2kg (13.2kg when China is excluded from consideration), with fish contributing, on average, more than 40% of total animal proteins in all the affected countries (again except India and Somalia). In comparison, the share of fish proteins in total world animal protein supplies was approximately 15.9% in 2001. These figures are unlikely to illustrate the full extent of the impact of the tsunami on food security in affected communities, as the importance of fish for food security (both in direct terms through its consumption and indirectly by enabling those catching fish to generate income to purchase other food stuffs) is obviously much greater for coastal populations than the national averages suggest.

Further secondary impacts likely to affect fisher households and communities include:

- the loss of agricultural land used by fisher households;
- the interruption of other economic activities previously contributing to livelihood strategies, especially the loss of tourism-related employment, which has been affected not only by loss of infrastructure (which can be rectified) but by the dramatic drop in tourist numbers to the affected areas;
- loss of savings kept in houses rather than banks;
- continuing requirements to repay loans or debts with no means of generating income;
- disruption to informal sources and mechanisms of credit;
- a lack of demand for fish in coastal areas, due to unfounded safety concerns and/or lack of financial ability of coastal populations to buy fish, resulting in a loss of protein in the diet;
- psychological impacts on fishing communities, with a fear of returning to the sea (the unpredictable nature of the disaster has led some fisher communities to be cautious whether to return to the sea); and
- damage to ecosystems which supported the livelihoods of fishers and fish farms.

The principal determining factor in the extent to which households have been affected by the tsunami is the proximity what people were living to the shore, and the diversification of livelihood strategies. Those fishing communities living closest to the shore, with houses on or close to the beach or in mangrove swamps, will have been particularly hard hit as fisheries are likely to have played a significant role in household income generation, especially if land close to the shore is unsuitable for agricultural production. Fishing households located slightly further from the sea may also be suffering severe impacts from the tsunami where saltwater intrusion may have had, or will continue to have for a limited period, an effect on the productivity of kitchen gardens and the ability to keep livestock. For fishing households located further from the shore, the retention of assets and livelihood strategies outside of fishing may be easier and suggests such households will be able to survive with less assistance.

The full impact of the December tsunami generally and specifically within the fisheries sector is only gradually being fully contemplated, but it is clear that the impact on the fisheries sector in the affected countries has been devastating. In immediate terms, there has been extensive loss of life, displacement, loss of fishing vessels and equipment, damage to fishing and aquaculture facilities. These direct impacts have more extensive consequences, including threats to food security and livelihood threats and will require long-term solutions. The cost of rehabilitation can barely be quantified at the moment, although it is likely to be billions rather than millions of dollars. At the current stage the focus remains on immediate assistance and emergency rehabilitation needs, including in the fisheries sector, but already attention is being given to the need to rehabilitate fisheries in a sustainable way. It is encouraging that consideration is being given to this, although it is too early to make any assessment of the success of fisheries rehabilitation.

Karen Sherman³

Programme Manager / Development Consultant, OceanLaw ICS (Karen.Sherman@oceanlaw.net)

Appendix: Summary of estimated impacts in the fisheries sector in affected countries

Country	Main coastal areas affected	Summary of estimated impacts in the fisheries sector
Indonesia	Aceh and Nias Islands	<ul style="list-style-type: none"> - overall, more than 110,000 deaths and 700,000 people displaced - 15-20% of fisher people killed; over 60% fatalities in northern Aceh communities - 65-70% of small-scale fishing fleet and gear destroyed - widespread infrastructure damage, with 55% of harbours damaged and almost all fish landing facilities destroyed - financial cost of direct damage to capture fisheries industry = USD 700 million
Sri Lanka	12 of the 14 coastal districts in the country (Colombo, Negombo, Jaffna, Kilinochchi, Mullaitu, Tricomalee, Batticaloa, Ampara, Hambantota, Matar, Gale and Kaluthara districts)	<ul style="list-style-type: none"> - overall, more than 30,000 deaths and 450,000 people displaced - 50% of fishing vessels damaged or destroyed - nearly 71,000 people in fishing households directly affected through death, displacement or damage - financial cost of direct damage to capture fisheries industry = USD 335 million
India	South east coast and offshore islands. Tamil Nadu and the Andaman and Nicobar islands most severely affected. The States of Pondicherry, Andhra Pradesh and Kerala were affected to a less severe degree	<ul style="list-style-type: none"> - overall, around 10,000 deaths and more than 6,000 people missing - 85% of people affected in Tamil Nadu are from fishing communities and a further 130,000 fisher families affected in Andhra Pradesh - financial cost of direct damage to capture fisheries industry = USD 2.5 billion
Thailand	Phan Nga, Phuket, and Krabi Provinces	<ul style="list-style-type: none"> - overall, 4,000 deaths and 400,000 displaced or in need of rehabilitation - around 4,000 small and 1,300 large fishing boats destroyed or seriously damaged - almost 3,000 fishing households have suffered livelihood losses - financial cost of direct damage to capture fisheries industry = USD 14 million
Maldives	Flooding in most islands, but more extreme impacts in the south. Twenty of the Maldives 199 inhabited islands 'totally destroyed'	<ul style="list-style-type: none"> - overall, almost 1/3 of population affected (almost 100,000 people) and 10% of the populations displaced or homeless - over 120 small-scale boats destroyed, representing a direct loss of income earning opportunity for around 1,200 fishers and their households - rehabilitation cost to fishing industry estimated at USD 25 million
Malaysia	Northern States of Kedah, Penang Perlis and Perak	<ul style="list-style-type: none"> - around 70 deaths and more than 8,000 people displaced or disrupted - majority of the affected are in fishing communities - value of lost boats and gear around USD 7.5 million
Myanmar	Limited to the southern coast (Thanintharyi Division and Rakhine State)	<ul style="list-style-type: none"> - overall, 60-80 deaths and 10-15,000 affected - little information on effect on fishing communities, but the majority of fishing villages were affected and cost of damage to vessels and gear estimated at USD 260,000
Somalia	Puntland	<ul style="list-style-type: none"> - overall, 150 deaths and 50,000 people directly affected - substantial loss to fishing boats and gear - around 22,000 people in fisher families will require assistance before next fishing season
Other countries	Kenya (Malindi, Mombassa, Kalifi and Lamu Island), Tanzania (mainland and islands of Pemba, Zanzibar and Mafia), Bangladesh and Seychelles	relatively limited impacts, but several thousand persons affected in fishing industry

Data from: *Impacts of the Tsunami on Fisheries, Aquaculture and Coastal Livelihoods in Indonesia*, as at 10 March 2005; *Impacts of the Tsunami on Fisheries, Aquaculture and Coastal Livelihoods – Sri Lanka*, as at 8 March 2005; *Tsunami Impact on Fisheries and Aquaculture in India*, as at 14 February 2005; *Tsunami Impact on Fisheries and Aquaculture in Thailand*, as at 14 February 2005; *Impacts of the Tsunami on Fisheries and Aquaculture Livelihoods – Maldives*, as at 6 February 2005; *Impacts of the Tsunami on Fisheries and Aquaculture Livelihoods – Malaysia*, as at 3 February 2005; *Impacts of the Tsunami on Fisheries, Aquaculture and Coastal Livelihoods, Myanmar*, as at 9 March 2005; *Impacts of the Tsunami on Fisheries and Aquaculture Livelihoods – Somalia*, as at 8 February 2005.

[2] International organizations and meetings

1.2.1 29th Session of GFCM. The 29th Session of the General Fisheries Commission for the Mediterranean took place in Rome, Italy from 21 to 25 February 2005. The Session was attended by delegates from all 24 Members of the Commission, as well as a number of observers from non-member countries, international and non-governmental organizations.⁴ As the first ordinary session since the entry into force of the 1997 amendments to the GFCM Convention, the beginning of the meeting focused on organizational matters including the location of secretariat, selection of the Executive Secretary and issues related to the management of the autonomous budget. Concerning the former, the Commission had received applications from Italy, Malta and Spain and, after a secret ballot, agreed that the seat of the Commission would be in Rome, Italy. A number of recommendations on fisheries management were also adopted. These included: a Recommendation concerning demersal and deep sea fisheries (requiring members (a) to adopt measures aimed at increasing the selectivity of demersal trawl nets, including a minimum mesh size of 40 mm for the demersal trawl codend; and (b) to prohibit the use of towed dredges and trawl nets in deep sea fisheries, i.e. depths beyond 1000 metres); and a Recommendation concerning the establishment of a record of fishing vessels over 15 metres in length authorized to operate in the GFCM area. Concerning the Recommendation on sub-1000-metre fisheries, the prohibition was introduced as a precautionary measure to protect deep sea habitats and species as such fisheries have not yet been explored by Mediterranean fleets. Other proposed recommendations concerning IUU fishing, monitoring, control and enforcement were set aside for further consideration, although guidelines for a GFCM scheme of control and enforcement were adopted. Finally, the Commission also reviewed relevant ICCAT Recommendations and adopted a further Recommendation of its own adopting those recommendations it considered appropriate.

1.2.2 38th AIDCP International Review Panel Meeting. The 38th Meeting of the International Review Panel (IRP) of the International Dolphin Conservation Programme was held from 16 to 18 February 2005, in La Jolla, California.⁵ The meeting began with a review by the Secretariat of the status of the assignments, reallocations and utilization of Dolphin Mortality Limits (DMLs) for 2004 and a presentation of a new statistical system which has the potential to identify vessels not covered by the AIDCP that might be fishing for tunas associated with dolphins, allowing differentiation between those setting on schools of tuna associated with dolphins and those that do not. The Secretariat also presented data reported by observers of the On-Board Observer Program relating to possible infractions. Each case was discussed and the Panel agreed to forward possible infractions of the AIDCP to the responsible government for investigation and possible sanction. The Meeting also received information from the Parties in cases of six categories of possible infractions reported by the IRP. However the Panel agreed to defer discussion of transit waivers until its next meeting. The Panel accepted the report of the Permanent Working Group on Tuna Tracking and the Report of the Working Group to Promote and Publicize the AIDCP Dolphin Safe Tuna Certification Scheme. The Panel approved the Procedures for verifying vessel well volumes and the calculation of vessel assessments for 2006 as recommended by the Working Group on Vessel Assessments and Financing.

1.2.3 Other AIDCP meetings. Preceding the meeting of the IRP two additional meetings also took place: the 18th Meeting of the Permanent Working Group on Tuna Tracking and the 4th meeting of the Working Group to Promote and Publicize the AIDCP Dolphin Safe Tuna Certification System.⁶ At the former, a report was presented on the implementation of the dolphin safe certification system and on comparisons of dolphin safe certificates and their corresponding Tuna Tracking Forms (TTFs). However, publicizing the TTFs met with some opposition in light of agreed confidentiality agreements and the Secretariat was asked to prepare a draft protocol before the next meeting of the Working Group. The Working Group also discussed, in some detail, the proposed FAO guidelines on ecolabelling and agreed on the importance of the Procedures for AIDCP

Dolphin Safe Certification being compatible with FAO guidelines. The Working Group to Promote and Publicize the AIDCP Dolphin Safe Tuna Certification System agreed to hold an event to disseminate the label at the next meeting of the IATTC in June and the United States was asked for advice on the best way to increase consumer awareness of the label in their territory, bearing in mind the legal restrictions surrounding the label. To this end, a second generation of promotional materials will be prepared.

1.2.4 Meeting of the OSPAR Biodiversity Committee. The latest Meeting of the OSPAR Biodiversity Committee took place in Bonn, Germany, from 21 to 25 February 2005.⁷ The meeting discussed the current progress in the development of North Sea Ecological Quality Objectives (EcoQO – a set of indicators that have been developed as one of the four main elements of OSPAR’s general strategy on biodiversity and ecosystem approaches), and issues related to their application, and considered similarities and differences between OSPAR’s EcoQO and the approach emerging in the development of the European Union’s Marine Strategy. Also under discussion was the report of the meeting of the Working Group on Marine Protected Areas and Species and Habitats (MASH), held in Tromsø, Norway in October 2004. The Committee agreed on the activities and documents upon which it had been invited to take action, including species and habitats in need of protection, management measures for these, habitat mapping and marine protected areas. There was also further discussion on how to protect the cold-water coral reefs of the OSPAR area, the Report of the Working Group on Environmental Impact of Human Activities and a discussion on the report on the first meeting of the General Assembly of the North Sea Regional Advisory Council (NSRAC), which took place in November 2004. Attention was drawn to progress on the establishment of other RACs – for pelagic fisheries (expected to be based in the Netherlands), for north-western Atlantic waters (expected to be based in Ireland) and for south western Atlantic waters (expected to be based in France). Continuing discussions centred on the advisory nature of the RACs and the Maximum Sustainable Yield approach to fisheries management. The Committee requested that the workshop hold a joint scientific workshop with ICES and the NSRAC to consider the latter.

[3] Treaty actions

1.3.1 The accession of Eritrea to the **Convention on the Conservation of Migratory Species of Wild Animals** became effective on 1 February 2005.

1.3.2 Lebanon ratified the **Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area** on 1 March 2005.

[4] International and national case law

Australia

1.4.1 Bell / Gale / White v Australian Fisheries Management Authority

Administrative Appeals Tribunal; 28 February 2005

[2005] AATA 172, 173, 174; <www.intfish.net/cases/2005/3>

Three appeals, heard simultaneously, before the Australian Administrative Appeals Tribunal against decisions of the Australian Fisheries Management Authority (AFMA) on allocations of quota in the southern shark fishery. All three applicants claimed that during the historical reference period used to calculate quotas, “exceptional circumstances” had existed (in all cases illness, combined with other factors) which prevented fishing and therefore resulted in lower catches. According, it was claimed that these circumstances should have been taken into account when

determining their quotas (and higher quotas awarded). The Tribunal agreed that AFMA should take account of “exceptional circumstances” but decided that such circumstances existed, to the detriment of fishing activity, in only two of the applications. In the first case (Bell), the applicant’s vessel was incapacitated by engine break down which led to a reduction in income and ultimately the repossession of the vessel and bankruptcy. Although the tribunal considered that in isolation vessel incapacity and subsequent repossession would amount to an “exceptional circumstance”, in the present case the applicant had fished during the relevant years from smaller boats, with a single net (when licensed to use more) and in less productive waters and presented no evidence to the tribunal that he had attempted to either lease or acquire another vessel or seek another income as a fisherman which may have avoided bankruptcy. An exceptional circumstance was not therefore found and the application was dismissed. In the other two cases, the circumstances principally concerned involved serious ill health which prevented the fishers from exercising full fishing effort in the fishery throughout the licensing reference period, although both applicants had recovered and were now physically able to participate fully in the fishery. The tribunal found exceptional circumstances to exist and ordered that the original decisions be set aside.

[5] Current materials

1.5.1 Resolutions and Report of the First Meeting of the Parties to ACAP. The First Meeting of the Parties to the Agreement on the Conservation of Albatrosses and Petrels (ACAP) was held in Hobart, Australia in November 2004. The meeting focussed on organizational matters and also adopted emergency criteria (“criteria to define emergency situations that require urgent conservation measures and the modalities for assigning responsibility for action to be taken”) and agreed on priorities for future work under the Agreement. Five resolutions were adopted on: the Agreement Secretariat, the Budget, the Scale of Contributions, Emergency Criteria and the Advisory Committee. The meeting also adopted rules of procedure and financial regulations.

1.5.2 CCAMLR: Conservation Measures adopted at the XXIII Meeting of the Commission. The 23rd Annual Meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) took place in Hobart, Australia in October/November 2004. The Commission adopted a large number of conservation measures, dealing, *inter alia*, with: licensing and inspection obligations; satellite-linked vessel monitoring systems; the Catch Documentation Scheme for toothfish; the Scheme to promote compliance by Contracting Party vessels with CCAMLR Conservation Measures; limitation of bycatch; catch limits and other conservation measures for a number of fisheries, including certain experimental and exploratory fisheries. The Commission also adopted three new Resolutions, concerning: the Electronic Catch Documentation Scheme for toothfish; incidental mortality of seabirds arising from fishing; and safety on board fishing vessels.

1.5.3 Declaration on Action to Strengthen Emergency Relief, Rehabilitation, Reconstruction and Prevention of the Aftermath of Earthquake and Tsunami Disaster. This ministerial declaration was adopted at a Special ASEAN Leaders’ Meeting on the Aftermath of the Earthquake and Tsunami, which was convened in Jakarta, Indonesia on 6 January 2005. The Declaration agreed on the need for short, medium and long-term action in three main areas: emergency relief; rehabilitation and reconstruction; and prevention and mitigation.

1.5.4 Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States; Mauritius Declaration. The International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (“the Barbados Programme of Action”) took place in Port Louis, Mauritius in January 2005. The major product of the Conference was the Mauritius Strategy, which provides for further implementation of the Barbados Programme

of Action. As regards marine living resources, the Strategy encourages, *inter alia*: the effective monitoring, reporting, enforcement and control of fishing vessels to further implement the IPOAs on IUU fishing and fishing capacity; the development of responsible fisheries in line with the FAO Code of Conduct; developing the necessary infrastructure and legislative and enforcement capabilities to ensure effective compliance with, and implementation and enforcement of, international law. It also encourages distant-water fishing nations to provide small island developing States with adequate technical and financial support to enhance the effective and sustainable management of their fisheries resources and encourages the utilization of regional mechanisms to put in place integrated policies and sound management approaches, such as marine protected areas.

1.5.5 IPHC: Pacific Halibut Fishery Regulations 2005. These are the revised regulations for the Pacific halibut fishery in 2005, adopted at the 81st Annual Meeting of the International Pacific Halibut Commission in Victoria, British Columbia. The Regulations fix catch limits, licensing requirements, fishing areas and other measures for the commercial fishery and set regulations also for customary and traditional fishing and sport fishing.

Reports and other materials

1.5.6 Report of the FAO Workshop on IUU Fishing in the Mediterranean. The Workshop on Illegal, Unreported and Unregulated (IUU) fishing in the Mediterranean took place in Rome, Italy, in June 2004. The Report records the discussions and conclusions of the Workshop and, in addition, contains a detailed study on IUU fishing in the Mediterranean and management responses to it, prepared by an FAO consultant for the meeting. This study reviews the status and implementation of the IPOA-IUU in the Mediterranean, referring *inter alia* to: the contexts in which IUU fishing has been addressed by the General Fisheries Commission for the Mediterranean (GFCM); and adoption of national plans of action (NPOAs) on IUU fishing by GFCM Members, including European Union responses.

1.5.7 International Dolphin Conservation Program: Minutes of the 37th Meeting of the International Review Panel; Minutes of the 12th Meeting of the Parties to AIDCP. The 37th meeting of the International Dolphin Conservation Program (IDCP) International Review Panel (IRP) and the 12th meeting of the Parties to the Agreement on the International Dolphin Conservation Program (AIDCP) took place in October 2004 in La Jolla, United States. The IRP meeting reviewed the status of the assignments, reallocations and utilization of dolphin mortality limits (DMLs) in 2004 and reviewed the vessels qualified to receive DMLs for 2005 and the AIDCP List of Qualified Captains. It also agreed to propose slight amendments to technical requirements in the AIDCP concerning dolphin safety gear and equipment for vessels with DMLs; reviewed observer data and schemes; and reviewed actions by Parties on possible infractions reported by the IRP. The Meeting of the Parties reviewed the Report of the IRP; adopted amendments to the terms of reference of the Joint Working Group on Fishing by Non-Parties; adopted criteria for attaining the status of cooperating non-party or fishing entity; agreed to the establishment of a list of IUU fishing vessels (see Resolutions).

1.5.8 Report of the FAO Regional Workshop on the Elaboration of National Plans of Action to Prevent, Deter and Eliminate IUU Fishing – Southeast Asia Subregion. This document contains the report of, and some of the papers presented at, the FAO Regional Workshop on the Elaboration of National Plans of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing – Southeast Asia Subregion which was held in Penang, Malaysia, in October 2004. The purpose of the Workshop was to assist countries in Southeast Asia to develop capacity so that they would be better placed to elaborate National Plans of Action on IUU fishing (NPOAs–IUU). The Workshop addressed the 2001 IPOA–IUU and the Technical Guidelines that have been

developed to support its implementation; concepts of planning and the elaboration of action plans; a case study for the development of a NPOA–IUU; and skills enhancement through the identification of key issues relating to NPOAs–IUU.

1.5.9 Report of the FAO Expert Consultation on Data Formats and Procedures for Monitoring, Control and Surveillance. The Expert Consultation on Data Formats and Procedures for Monitoring, Control and Surveillance (MCS) took place in Bergen, Norway, in October 2004. The Expert Consultation was convened in accordance with the recommendation of the FAO’s Committee on Fisheries, with a view to facilitating implementation of the IPOA–IUU. The experts focused on the harmonization of data formats for MCS information that is exchanged internationally. The Consultation agreed several recommendations for more effective harmonization and exchange of MCS information.

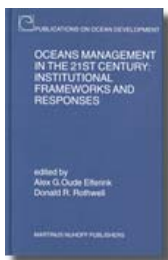
1.5.10 GFCM - Report of the 7th session of the Scientific Advisory Committee. The seventh session of the GFCM Scientific Advisory Committee was held in Rome, Italy, in October 2004. The Committee reviewed work by its subcommittees during the intersessional period; appraised scientific activities; formulated advice on fishery management; and agreed on its workplan for 2005. The Committee emphasized the need to develop task-oriented advisory processes driven by the Commission and to formulate multidisciplinary management advice, encompassing multi-species fisheries and in conformity with an ecosystem approach.

1.5.11 Final Report of the WCPFC Preparatory Conference. The Interim Secretariat of the Western and Central Pacific Fisheries Commission (WCPFC) Preparatory Conference has issued the final report of the Conference, which includes all official documents issued during the Conference. The final session of the Preparatory Conference took place in December 2004, immediately prior to the inaugural session of the Commission.

[6] Editor’s review

Recently published books

1.6.1 Oceans Management in the 21st Century



Oceans Management in the 21st Century

Alex G. Oude Elferink, Donald R. Rothwell

Brill Academic Publishers (Martinus Nijhoff), 2004. ISBN 9004138528. 396 pp.

This excellent work, which is an edited volume with contributions from a wide-range of internationally recognized experts in various fields, provides a detailed and authoritative examination of various matters concerning the implementation of the LOS Convention. Looking back at approximately 10 years of State and institutional practice since the entry into force of the Convention, different chapters consider key issues concerning its interpretation and implementation and assess the roles and impact upon oceans management of various international organizations and institutions. The Convention bodies, including ITLOS, are examined, as are institutions outside the Convention’s framework, including the Food and Agriculture Organization, regional fisheries organizations and the UN General Assembly. Chapters directly concerned with fishing deal with issues such as participation, allocation and unregulated fishing in regional fisheries management organizations; IUU fishing; dispute settlement, including consideration of the Southern Bluefin Tuna awards; and prompt release of fishing vessels. Other chapters, many of which will also be of interest to those concerned with the international legal aspects of the conservation and management of marine living resources, cover matters such as the enforcement of environmental obligations in

the LOS Convention, the role of regional organizations, dispute resolution and the LOS Convention review process. Together with the editors' input, the book provides a useful, informative and interesting set of analyses concerning the interpretation of the Convention, its implementation and the role of and interaction between the various institutional mechanisms.

Other resources

1.6.2 Causes of Detentions and Rejections in International Fish Trade

L. Ababouch, G. Gandini, J. Ryder. *Causes of Detentions and Rejections in International Fish Trade*. FAO Fisheries Technical Paper No. 473, FAO, 2005. ISBN 9251052867

This paper is based on a study that identifies the major causes of detentions and rejections of fishery products in international trade and also assesses control procedures used by the main importing countries/regions, namely Canada, Japan, the European Union and the United States of America. Developing a good understanding of these control procedures and the causes of detentions/rejections is very useful, and can be beneficial for anyone involved in international trade programmes looking to reduce seafood wastages and fish-borne illnesses. The full report can be found at: <<ftp.fao.org/docrep/fao/008/y5924e/y5924e00.pdf>>

1.6.3 Marine Protected Areas: An Overview

J. Zinn, E. H. Buck, *Marine Protected Areas: An Overview*. Congressional Research Service Report, May 2005. 36 pp. Available online at <www.ncseonline.org/NLE/CRS/abstract.cfm?NLEid=63893>

This brief but informative report, by the United States Congressional Research Service, provides an overview of marine protected areas as a policy to conserve marine resources and outlines the areas of debate for their implementation in the United States. The concept of marine protected areas is described, including an outline of the challenges for locating, designing and managing MPAs, and current federal laws and programs (including the National Marine Sanctuaries Act, the Coastal Zone Management Act and the Magnuson-Stevens Fishery Conservation and Management Act) and recent Administrative and Federal Agency actions are reviewed. The report concludes with a discussion of issues for Congressional consideration and the need for new legislation.

[7] Media digest

Multilateral and regional issues

1.7.1.1 Disagreement continues over European blue whiting arrangements. Disagreements continue between the EU, the Faroe Islands, Iceland and Norway (the four coastal States for blue whiting) over joint management arrangements for blue whiting in European waters. Several years of negotiations have not yet led to agreement, and the countries involved have set autonomous quotas. The Faroe Islands is reported to be critical of the EU, which has increased its 2005 quota by 22%, and Norway, which in 2004 caught more blue whiting than the entire TAC recommended by ICES, and want parties to return to the negotiating table to devise a more sustainable target for the 2005 catch.

Further information and sources: *Worldfish Report No. 236, 3 February*⁸

1.7.1.2 GFCM 29th Session. The 29th Session of the General Fisheries Commission for the Mediterranean, which took place in Rome, Italy from 21 to 25 February, has been widely reported. Among the major decisions taken were several of an administrative nature, including a decision to

locate the Commission in Rome, and a conservation Recommendation to adopt a precautionary prohibition on bottom trawling at depths beyond 1000 metres (see *International organizations and meetings* 1.2.1, in this issue).

Further information and sources: *FAO News Release*, 22 February⁹; *WWF Press Release*, 25 February¹⁰; *WDCS News Release*, 7 March¹¹

Bilateral and national issues

1.7.2.1 Japan: Fisheries Agency to use DNA to track origin of tuna imports. The Japanese Fisheries Agency has announced it will begin DNA checks in order to trace the origin of tuna catches to assist in verifying whether international rules (which vary between oceans) have been complied with. The purpose is to reduce illegal tuna imports by suppliers faking fishing data. The Agency will collect DNA samples of tuna fish inhabiting different areas such as the Indian, Pacific and Atlantic Oceans and will use the data for the DNA method it developed to identify the origin of fish landed at ports in Japan and to verify this information against the catch certification.

Further information and sources: *Atuna.com*, 2 February¹²; *Japan Times*, 2 February¹³

1.7.2.2 Costa Rica: new fisheries law comes into effect. The Costa Rican Senate unanimously approved a new national fisheries law on 10m February. The new law, which has been debated since 1995 when parts of the 1948 fisheries law were ruled unconstitutional. The new law includes several environmental measures, including a prohibition on shark finning (and creates fines and jail terms for those involved in landing shark fins at Costa Rican ports) and rules for the protection of sea turtles, including requirements for shrimp fishermen to use turtle excluder devices (TEDs).

Further information and sources: *Environmental Media Services*, 12 February¹⁴

1.7.2.3 EU-Angola: fisheries agreement may be renewed. Reports indicate that the EU and Angola may be close to agreeing on terms to renew their fisheries agreement, under which EU vessels may fish in Angolan waters. The agreement expired last year and was not continued because the parties could not agree on the conditions of access and the level of financial compensation to be paid, but indications are now that the EU and Angola will sign a new agreement allowing EU vessels (mainly Spanish) to reinitiate their fishing activities in Angolan waters. The previous protocol allowed 15 tuna purse seiners (six from France and nine from Spain), 18 surface longliners (four from Portugal and 14 from Spain) and two pelagic vessels (from the Netherlands and/or Ireland), and 22 Spanish shrimp vessels to operate in Angolan waters.

Further information and sources: *Atuna.com*, 14 February¹⁵

1.7.2.4 Japan: fishing operations near disputed islands in the Pacific Ocean. According to reports in the Chinese press, Japan is to start fishing expeditions near a pair of Pacific Ocean islands to strengthen its hand in a dispute with China over the rights to natural resources in the area. Fishermen in April will begin catching tuna near Okinotorishima, 1,730 kilometres (1,070 miles) southeast of Tokyo. The tiny territory is made up of two outcroppings that Japan has fortified with concrete which, according to Japan, are islands which generate an exclusive economic zone, although to date there has been little fishing in the area.

Further information and sources: *The China Post*, 15 February¹⁶

1.7.2.5 Canada: draft action plan to combat IUU fishing released for consultation. Canada has released its draft National Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (NPOA-IUU) for public consultation. The NPOA-IUU outlines Canada's existing actions and initiatives at the national level to combat IUU fishing activities, and promotes objectives such as greater coastal state responsibility and improved co-operation through regional

fisheries management organizations. Following the public consultations, Canada will table the NPOA-IUU at the annual meeting of the FAO Committee on Fisheries in March.

Further information and sources: *Draft National Plan of Action to Combat Illegal, Unreported and Unregulated Fishing*¹⁷; *DFO News Release, 17 February*¹⁸

1.7.2.6 Korea adopts national plan of action on IUU fishing. The Ministry of Maritime Affairs and Fisheries (MOMAF) has drawn up a national plan of action (NPOA) to incorporate domestically the provisions of the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU). Included in the NPOA are commitments to enforce strict sanctions for the effective elimination of IUU fishing and to examine the appropriateness of the standard of punishments on a regular basis to ensure effectiveness.

Further information and sources: *KT Press (Korea), 22 February*¹⁹

1.7.2.7 Taiwan: Fisheries Administration announces reduction in bigeye tuna fleet. The Taiwanese Fisheries Administration, under the Council of Agriculture (COA), has announced that it will cut 60 bigeye tuna fishing vessels from the fleet by the end of this year in response to an international trend toward tuna conservation and sustainable fisheries. In response to criticisms at last year's ICCAT meeting, fishery officials also promised to strengthen the management of tuna fishing operations to improve compliance with international rules. Officials estimated that 24 fishing vessels can be cut in the Atlantic, 21 in the Indian Ocean and 15 in the Pacific by the end of this year.

Further information and sources: *Atuna.com, 24 February*²⁰; *Central News Agency (Taiwan), 24 February*²¹

1.7.2.8 Guinea-Bissau and FAO sign fisheries assistance agreement. The Food and Agriculture Organization (FAO) and Guinea-Bissau have signed an agreement on a CFA franc 270 million (USD 550,000) project involving 18 countries along the Atlantic coast. Funded by the Swedish government, the project seeks to help local experts in the elaboration and implementation of scientific methods in the management of fishing activities and will help assess and identify available fishery resources.

Further information and sources: *Angola Press, 28 February*²²

1.7.2.9 European Union announces plans to develop an integrated maritime policy. The European Commission is launching a consultation for an integrated maritime policy for the EU. The policy will cover all ocean activities with the EU's spheres of competence, including fisheries, tourism, energy and transport. The Commission set out the background to its decision and guidance for its further work in a Communication, published on 2 March.²³ According to the Commission, an integrated approach is necessary because of the density and diversity of sea-based activities which impact upon each other and often create conflicts because of fragmentation. A task force of commissioners has been set up to draft a Green Paper on a future maritime policy. The consultation paper is scheduled for publication in the first half of 2006 and shall be the basis for a broad consultation. Specific proposals will follow after the consultation.

Further information and sources: *European Commission Press Release*²⁴ and *Memorandum*,²⁵ 2 March; *Euractive, 4 March*²⁶

Marine mammals, biodiversity and environment

1.7.3.1 United Kingdom: Greenpeace launch legal challenge concerning dolphin bycatch. Greenpeace has launched a legal challenge in the English High Court against the UK Government seeking a prohibition on all fishing boats pair trawling for sea bass within 200 miles of the UK.

Greenpeace claims that this type of fishing, which involves towing a large net between two boats, is a significant cause of incidental dolphin mortality and that, under the EU Habitats Directive, the Government is obliged to take action to protect the dolphin population. Last year, the Government announced a ban on UK pair trawlers operating within 12 miles of the UK coast, but considered it did not have the competence under the EU Common Fisheries Policy to take action further out to sea. This step was acknowledged by environmental groups as an important political gesture, although these groups did not consider that the measure would significantly reduce the number of dolphin deaths.

Further information and sources: *WDCS Press Release, 14 February*²⁷

1.7.3.2 United States: ship assessed USD 500,000 for coral damage. The US National Oceanic and Atmospheric Administration (NOAA) assessed a settlement of more than USD 500,000 in a case of a Panamanian registered vessel cited for coral damage in a Florida Keys National Marine Sanctuary. The vessel was cited in 2002 for anchoring in a no-anchor zone area within the Sanctuary's Tortugas Ecological Reserve and sanctuary divers found damage to the coral reef where the ship had been anchored. The National Marine Sanctuaries Act authorizes NOAA to seek damages when sanctuary resources have been injured to cover response, injury assessment, restoration or replacement cost for the injured habitat or acquisition of equivalent habitat. Costs may be obtained to compensate the public for the lost value of the injured resources until they fully recover.

Further information and sources: *NOAA Press Release, 15 February*²⁸

Development, trade, markets and resources

1.7.4.1 European Commission provides technical aid and boats in response to tsunami. The European Commission has taken formal steps to help fishing communities in regions hit by the Decembe tsunami, following an agreement reached in January between the Commission and EU Member States. Under the decision, the Commission has cleared the way for both immediate and longer-term technical expertise to the affected parts of the Indian Ocean. EU aid will start with the dispatch of experts to identify reconstruction needs, before continuing with a programme of long-term assistance to the local fisheries sector. At the same time, funds that have been earmarked for scrapping vessels will be used to provide numerous small European fishing vessels from Member States to fishers in affected communities. While the scheme has the broad backing of EU Member States, concerns have been expressed about the suitability of these vessels for fishing in the areas concerned (see 1.7.4.3 in this section).

Further information and sources: *Worldfish Report 236, 3 February*²⁹; *Worldfish Report 237, 17 February*³⁰; *Atuna.com, 28 February*³¹; *European Commission Press Release, 10 February*³²; *Proposal for a Council Regulation amending Regulation (EC) No 2792/1999 as regards a specific action for transfers of vessels to countries hit by the Tsunami in 2004*³³

1.7.4.2 Thailand estimates tsunami shrimp losses at USD 584 million. The Thai Shrimp Association has estimated that the total damage from the December tsunami suffered by the Thai shrimp fishing industry, including the loss of property and export opportunities, amounts to Baht 22.5 billion (USD 584 million). The estimates form part of a report to US government representatives as part of a request for a review of anti-dumping duties levied on Thai shrimp imports. The US International Trade Commission has announced that it could review the duties imposed on Thailand and India as an assistance measure following the December tsunami.

Further information and sources: *Bangkok Post, 3 February*³⁴

1.7.4.3 Tsunami: fisheries impacts continue to be assessed; FAO warns against building of excess capacity in rehabilitation. FAO estimates that direct losses in fisheries and aquaculture from the December tsunami total as much as USD 520 million. FAO estimates that 111,073 fishing vessels were destroyed or damaged, with a replacement cost of approximately USD 161 million and over 36,000 engines were lost or damaged beyond repair, with replacement costs projected at USD 73 million. In addition, there has been extensive damage to fishing gear such as nets and tackle, aquaculture operations, fishing industry infrastructure and harbours across the region. FAO has also warned that care needs to be taken in rehabilitation efforts to avoid the build-up of excess fishing capacity, noting that before the tsunami this was becoming a serious problem in some of the region's coastal fisheries, and to avoid inappropriate vessel and gear types which might harm the underwater habitat. Consequently, boats and equipment should match local customs, conditions and fishery productive capacities.

Further information and sources: *FAO Press Releases*, 17 February³⁵ and 21 February³⁶; *IPS News*, 23 February³⁷; *Atuna.com*, 24 February³⁸

1.7.4.4 WTO Negotiating Group on Rules discussed fisheries subsidies. Fisheries subsidies discussions in the WTO Negotiating Group on Rules in February focused on a new submission by Japan – this time officially supported by Korea and Taiwan – that further described its approach to developing disciplines on such subsidies. The proposal rejected calls for a general ban on fishing subsidies, but did propose that subsidies which could be shown to cause direct damage to stocks should be barred. Many observers are reported to have expressed cautious optimism regarding the progress of the talks, but stressed that much work remained to be done to hammer out the details of possible disciplines, in particular how they will deal with special and differential treatment for developing countries.

Further information and sources: *Reuters*, 24 February³⁹; *Bridges Weekly Trade News Digest*, 2 March⁴⁰

1.7.4.5 Climate change is major factor in cod decline. The drastic decline in the population of Atlantic cod in the North Sea could be attributed to global warming. Researchers at the Alfred Wegener Institute for Polar and Marine Research (AWI) in Bremerhaven, claim that over the past forty years, sea temperatures have risen 1.1°C. They have also noticed a slight increase in saline levels. Over this period, data reveals significant changes in marine species – a sharp reduction in cod and lobster populations and an increase in other species such as edible crabs, which thrive in warmer conditions.

Further information and sources: *Worldfish Report No. 237*, 17 February⁴¹

¹ *Impacts of the Tsunami on Fisheries and Aquaculture Livelihoods – Maldives*, as of 6 February 2005, available at <www.fao.org/tsunami/fisheries>.

² 'Food Balance Sheet' compiled by the Department of Census and Statistics, as cited in *Impacts of the Tsunami on Fisheries, Aquaculture and Coastal Livelihoods – Sri Lanka*, as of 8 March 2005.

³ An extended version of this paper is published in the OceanLaw Online Paper Series, at <www.intfish.net/archive/ops/ops>.

⁴ No report of the meeting was available at the time of writing. Meeting documents are available at: <[ftp.fao.org/FILE/DOCUMENT/gfcm/gfcm_29](ftp://ftp.fao.org/FILE/DOCUMENT/gfcm/gfcm_29)>.

⁵ See *Minutes of the 38th International Review Panel*: <www.iattc.org/PDFFiles2/IRP-38-Minutes-Feb-05-REV.pdf>.

⁶ See, respectively: *Minutes of the 18th Meeting of the PWG-TT*: <www.iattc.org/PDFFiles2/TT-18MinutesFeb05.pdf>; and *Minutes of the 4th Meeting of the WG to promote and publicize the AIDCP dolphin safe tuna certification system*: <www.iattc.org/PDFFiles2/DS-PromotionWG-4MinutesFeb05 ENG.pdf>.

⁷ The *Summary Record* of the meeting is available on the OSPAR website at: <www.ospar.org/eng/html/meetings/welcome.html>.

⁸ <www.agra-net.com/portal/home.jsp?pagetitle=showstory&article_id=1106585973203&pubId=ag014>.

⁹ <www.fao.org/newsroom/en/news/2005/89941/index>.

¹⁰ <panda.org/about_wwf/what_we_do/marine/news/index.cfm?uNewsID=18831>.

¹¹ <www.wdcs.org/dan/publishing.nsf/allnews/CD883165D28DFEA080256FBD00519672>.

¹² <www.atuned.biz/public/ViewArticle.aspx?ID=2332>.

¹³ <www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20050203f4.htm>.

¹⁴ <www.ems.org/nws/2005/02/11/costa_rica_passe>.

¹⁵ <www.atuned.biz/public/ViewArticle.aspx?ID=2361>.

¹⁶ <www.chinapost.com.tw/asiapacific/detail.asp?GRP=C&id=58377>.

¹⁷ <www.dfo-mpo.gc.ca/misc/npoa-iuu_e.htm>.

¹⁸ <www.dfo-mpo.gc.ca/media/newsrel/2005/hq-ac05_e.htm>.

¹⁹ <www.ktpress.co.kr/gisa_read.asp?key=9492>.

²⁰ <www.atuned.biz/public/ViewArticle.asp?ID=2385>.

²¹ <english.www.gov.tw/index.jsp?action=cna&cnaid=7114>.

²² <www.angolapress-angop.ao/noticia-e.asp?ID=321328>.

²³ Communication to the Commission from the President and Mr Borg, *Towards a future Maritime Policy for the Union: A European vision for the oceans and seas*, available at: <europa.eu.int/comm/fisheries/doc_et_publ/factsheets/legal_texts/docscom/en/com_maritime_en.pdf>.

²⁴ <europa.eu.int/comm/fisheries/news_corner/press/inf05_10_en.htm>.

²⁵ <europa.eu.int/comm/fisheries/news_corner/press/inf05_11_en.htm>. See also the DG Fisheries website, which has established a specific section on the proposed maritime policy: <europa.eu.int/comm/fisheries/maritime/index_en.htm>.

²⁶ <www.euractiv.com/Article?tcaturi=tcu:29-136271-16&type=News>.

²⁷ <www.wdcs.org/dan/publishing.nsf/allnews/8B51366FAA3B94A180256FA8003F8EB0>.

²⁸ <www.publicaffairs.noaa.gov/releases2005/feb05/noaa05-r409.html>.

²⁹ <www.agra-net.com/portal/home.jsp?pagetitle=showstory&article_id=1106585973195&pubId=ag014>.

³⁰ <www.agra-net.com/portal/home.jsp?pagetitle=showstory&article_id=1106585973195&pubId=ag014>.

³¹ <www.atuned.biz/public/ViewArticle.asp?ID=2392>.

³² <ec.europa.eu/fisheries/press_corner/press_releases/archives/com05/com05_06_en.htm>.

³³ <europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/com2005_0036en01.pdf>.

³⁴ <www.bangkokpost.com/Business/03Feb2005_biz56.php>.

³⁵ <www.fao.org/newsroom/en/news/2005/89775/index>.

³⁶ <www.fao.org/newsroom/en/news/2005/89901/index>.

³⁷ <www.ipsnews.net/interna.asp?idnews=27584 >.

³⁸ <www.atuned.biz/public/ViewArticle.asp?ID=2381>.

³⁹ <www.reuters.com/newsArticle.jhtml?storyID=7716863&type=businessNews>.

⁴⁰ <www.ictsd.org/weekly/05-03-02/index.htm>.

⁴¹ <www.agra-net.com/portal/home.jsp?pagetitle=showstory&article_id=1106585973263&pubId=ag014>.



Book Reviews

The Future of Cetaceans in a Changing World

Wil Burns, Alexander Gillespie (eds)

Transnational Publishers, 2003. ISBN 1571052623. 300 pp.

As the editors note in the introduction to the book, some of the “most vituperative moments in international diplomacy and in the history of multilateral environmental agreements have taken place in the context of cetacean conservation and management issues”. It is perhaps somewhat surprising, therefore, that these issues have attracted (arguably) relatively little attention in legal literature. Furthermore, much of the recent literature has tended to reflect one or other side of the debate on cetacean management. This new book, edited by two familiar faces in cetacean management policy and containing contributions from some of the most prominent participants in the debates in this area, is therefore very welcome on two counts. First, it provides a wide-ranging analysis of cetacean management issues, which include not only the management (or not) of whaling by the International Whaling Commission, but also considers the role of other international organizations in the conservation and management of cetaceans and also covers wider issues concerning cetaceans, such as the threats from pollution and climate change. Secondly, the book brings together proponents from the different sides of the debate concerning cetacean exploitation and conservation, which immediately provides the reader with an insight into the extent and diversity of that debate.

The book is divided into five parts, each dealing with a different aspect of international cetacean management. The first part, which comprises just over a third of the overall work, focuses on the International Whaling Commission (IWC) and contains five chapters. In the first, Yasuo Iino and Dan Goodman, both from the pro-whaling (Japanese) Institute of Cetacean Research, outline Japan’s position on several controversial issues, including research whaling, the Revised Management Scheme (RMS), whale sanctuaries and the use of secret ballots. They place this analysis against an analysis of the practice of the IWC which, they argue, over the past 20 years, demonstrates that the Commission has become dysfunctional, in particular as the majority of IWC members no longer agree with the objectives of the IWC Convention. A similar theme is continued in the second chapter, in which Milton Freeman argues that the failure of the IWC – by its rejection of harvesting quotas for Japanese small-type coastal whalers – to recognize the cultural and economic need of coastal whaling communities, and scientific evidence that such whaling can be conducted sustainably, also contravenes the IWC Convention. In the third chapter, Ray Gambell, former Secretary of the IWC, provides a historical overview of the evolution of the IWC from its origins as an organization unquestionably focussed on managing whaling to an organization now faced with managing highly polarized debates between those parties that seek to maintain the moratorium on commercial whaling, perhaps permanently, and those that believe that whales can be sustainably managed in the future through the completion of the RMS. The author concludes that a number of whale stocks could now sustain carefully regulated catches. Additionally, he questions whether non-consumptive activities, such as whale watching, are within the jurisdiction of the IWC Convention. The fourth chapter in this section is a brief comment by William Aron, William Burke and Milton Freeman that constitutes a response to an “open letter” signed by 21 scientists and published as an advertisement in the *New York Times* (and reproduced as an annex to the article in this book) on the subject of Japanese scientific

whaling. The open letter seeks to attack the Japanese scientific whaling programme, *inter alia*, by arguing that it fails to meet minimum standards for credible science. In response, the current authors argue that: “the letter contains numerous errors of science, fact and law.” In making these arguments, the authors consider the role of science in advocacy as well as respond to numerous specific points raised in the letter. The final chapter in this section, by Patricia Birnie, provides a balancing view and considers whether it would be more appropriate, in the 21st century, to use alternative regimes to the IWC, such as (among others) the Convention on Biological Diversity and the various fisheries agreements to “conserve whales and other cetaceans as irreplaceable components of the marine ecosystem”. She considers that States should develop their cooperation through these organizations and arrangements to address cetacean issues.

In Part II of the book the focus turns to the North Atlantic Marine Mammal Commission (NAMMCO); it consists of two chapters. In the first, Grete Hovelsrud-Broda, the organization’s Executive Secretary, provides an overview of NAMMCO and its constitutive instrument and considers their relationship to the IWC and IWC Convention. The author also provides a brief overview of the practice of NAMMCO, asserting that it acts effectively as an organization which promotes scientifically based exploitation programmes that both support the needs of local communities and promote the rational and sustainable use of resources in the region. The second chapter, by Howard Schiffman, considers the legal competence of pro-consumptive international organizations to manage cetaceans. The focus of this discussion is on NAMMCO, although brief consideration is also given to the non-governmental World Council of Whalers. The author also considers the application of the relevant provisions of the LOS Convention to the question, arguing that those provisions emphasize the conservation, not the consumption, of cetaceans. The author questions whether an organization with few members would be able to fulfil the obligations of cooperation under the Convention and concludes that while NAMMCO’s provisions for research may be consistent with international law, the organization’s management objectives, if applied to cetaceans covered by the IWC, might be inconsistent with the Convention.

Part III of the book addresses small cetaceans. The first chapter, by Kieran Mulvaney and Bruce McKay, provides a relatively comprehensive overview of the status of and threats to small cetaceans and of the international management regimes applicable to them. The authors conclude that, although subject to some scientific uncertainty, a large number of species (particularly those with limited migratory ranges) appear to be seriously depleted. In the second chapter, Alexander Gillespie provides a comprehensive review of international law as it applies to small cetaceans. This includes both a discussion of the competence of the IWC to regulate such species and the rights of States under the law of the sea to exploit and manage them. With regard to the former, the author argues that the IWC does have such competence whilst, with regard to the latter, the author argues that although the LOS Convention does provide coastal States with legal authority over small cetaceans, several provisions of the Convention emphasize the need to protect small cetaceans and cooperate with appropriate international organizations. With respect to this last point, the author further argues that alternative regimes to the IWC, such as NAMMCO, must play a complementary role to that organization. In the final chapter in this section, Robin Churchill reviews the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS). The author provides a thorough analysis of the Agreement’s provisions, including the Conservation and Management Plan, and of practice under the Agreement to date. In assessing its effectiveness the author concludes that the Agreement, and its institutional bodies, have functioned reasonably effectively, but that the Agreement would benefit, *inter alia*, from higher

participation of range States, a greater allocation of financial resources and improved monitoring and reporting procedures.

Part IV deals with two anthropogenic threats to cetaceans – pollution and climate change. In the first chapter, Mark Simmonds considers the problem of, and the management responses to, pollutants affecting cetaceans, such as organochlorines and heavy metals. Taking the precautionary approach as a basis, the author argues that it is not currently possible to determine, with any certainty, safe levels of contamination and that large numbers of species should be classified as “at risk”. In the other chapter in this section, Wil Burns examines the potential impacts of climate change on cetaceans. The author outlines the threats that climate change pose to cetaceans, focussing on the polar regions but taking into account other regions too, and considers the role of the IWC and the UN Climate Change Convention in managing these threats. The author argues that the IWC may not be the most appropriate forum for dealing with climate change threats but might effectively act as an advocate in other forums.

The final section consists of a single chapter, by Michael Donoghue of the New Zealand Department of Conservation, which considers the role of cetaceans within the ecosystem. Specifically, the chapter addresses the recent argument advanced by Japan and others that whales – due to their high consumption of fish – are partly responsible for the depletion of fish stocks and that culling stocks would therefore be conducive to promoting sustainable fisheries. The author challenges this argument, asserting that the effect of cetaceans on fish populations is limited and arguing that the main reasons for the substantial decline in fish populations in recent years stem from anthropogenic activities, in particular fishing.

The editors do not attempt to draw together the preceding contributions in the book in a concluding chapter, possibly because – given the breadth of topics covered and the range of opinions expressed – it would almost be impossible to draw meaningful or coherent conclusions from these. Nevertheless, if one were to reach for conclusions that could be drawn from this book, major themes might be that: the future of cetaceans is not certain; the management of whales by the IWC is becoming increasingly difficult as the polarization between pro- and anti-whaling nations escalates and the range and vociferousness of arguments advanced by both sides develops; there is a much greater need in modern times to consider alternative issues in relation to cetaceans, including small cetaceans, such as the threats of pollution and climate change. The fact that *The Future of Cetaceans in a Changing World* manages to discuss all of these issues is in itself a worthy achievement. The book manages both to cover comprehensively all of the major issues concerning cetacean conservation and management and to represent the opposing sides of the various debates. Although not specifically a legal text (the authors are drawn from various disciplines and backgrounds), the book represents a detailed, informative and very readable discussion of the various issues in cetacean management, which should be high on the reading list for anyone, including lawyers, interested in international cetacean issues.

Review by Christopher Hedley

Director, OceanLaw ICS; Barrister (c.hedley@oceanlaw.net)

The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law

Simon Marr

Brill Academic Publishers/Martinus Nijhoff, 2003. ISBN 9041120157. 268 pp.

Of the many developments in the international law of fisheries in the past decade or so, the progressive rise and development of the precautionary principle is certainly one of the most (if not the most) significant. It has been debated, discussed and considered extensively in various forums and many views exist on the scope of its content and its status as a principle or rule of international law. However, there have been relatively few detailed (legal) studies of the precautionary principle as it applies specifically to international fisheries law, or even to the wider law of the sea. *The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law*, the doctoral thesis of Simon Marr, fills that gap. It examines current implementation of the precautionary principle in the law of the sea, which includes an extensive review of State practice, and considers the status of the principle as a rule of customary international law. In doing this, the author also brings together and considers much of the debate conducted elsewhere.

The first three chapters of the work set the scene and provide a general overview of the form, development, content and application of the precautionary principle. Thus, Chapter 1 sets out the history and some basic considerations of the precautionary principle, including consideration of how the principle may be defined (and concluding that, as a minimum standard, the definition reflected in Principle 15 of the Rio Declaration is widely accepted); Chapter 2 considers various scientific concepts associated with the principle, including the role of scientific uncertainty and risk assessment and management; and Chapter 3 formulates limits to the precautionary principle within the context of three frameworks – the principle of proportionality, the principle of sustainable development and the LOS Convention.

The subsequent chapters then examine State practice in different sectors of the law of the sea, namely: protection of the marine environment (Chapter 4); marine biodiversity (Chapter 5); the dumping of radioactive and hazardous substances and incineration (Chapter 6); the conservation and management of marine living resources (Chapter 7); and transboundary movements of radioactive and hazardous substances (Chapter 8). In each of these chapters the implementation or application of the precautionary principle in international agreements, national legislation and, where applicable, international litigation, is reviewed. From this sector-by-sector analysis the author seeks to provide not only a detailed review of the present status of the precautionary principle in State practice, but also to determine whether it has been implemented differently in different sectors (and concluding that, to a large extent, it has). This part of the study is not exhaustive (and is not intended to be such), but selects appropriately the most relevant or informative international or national implementations of the precautionary principle in the relative sectors.

As regards the chapters on marine biodiversity and the conservation of marine living resources, consideration is given to: the UN Fish Stocks Agreement, the major fisheries management organizations and agreements, the IWC, ACCOBAMS, ASCOBANS, the RAMSAR Convention, the Convention on Biological Diversity, CITES and the UN driftnet resolutions (as well, of course, as the LOS Convention); national legislation, focussing on European (including the EC), North American and some African countries and Australia and New Zealand; and international litigation (mainly the *Southern Bluefin Tuna* cases). From this examination the author notes that there has been an increased implementation of the

precautionary approach in fisheries in recent years, and that precautionary reference points have evolved into one of the main “tools”. He also argues that precautionary action is required well in advance of potentially “irreversible damage”, suggesting that a lower triggering threshold than that set out in Principle 15 of the Rio Declaration is emerging for fisheries conservation measures.

Chapters 9 and 10 draw together the preceding analysis, providing respectively a consideration of the principle as a rule of customary international law and conclusions. The text does not draw together definitive or detailed conclusions on the status of the precautionary principle in the different sectors, but does set out a number of more general conclusions. Amongst these are that, as a minimum standard, the content and definition of the precautionary principle is that reflected in Principle 15 of the Rio Declaration; and, a little more specifically, that the precautionary principle has developed from a “soft law” principle with only guiding qualities for policy-makers to a rule of customary international law in the sectors of pollution of the marine environment and conservation and management of living marine resources. It also argues that there is an emerging practice of law that makes the precautionary principle subject to a proportionality test, which includes a cost-benefit analysis.

In conclusion, this book provides an informative review of the precautionary principle as it applies to the law of the sea and provides valuable guidance for both environmental law and law of the sea researchers. From the perspective of international fisheries law specifically, the book contains extended discussions of direct relevance, but the book as a whole offers value to fisheries researchers. It is well written and a very accessible read and, although it does not draw detailed or firm conclusions on many aspects, it takes the reader through all of the relevant issues and provides thoughtful discussion on them.

Review by Christopher Hedley
Director, OceanLaw ICS; Barrister (c.hedley@oceanlaw.net)



Announcements

Employment and study opportunities

International employment opportunities

National employment opportunities: governmental

National employment opportunities: non-governmental

Study and internship opportunities

International employment opportunities

Senior Fishery Industry Officer (Fishing Operations)

- Food and Agriculture Organization (Rome, Italy)

Under the general supervision of the Chief, Fishing Technology Service, but with considerable latitude for personal initiative, and in close collaboration with other Fishery Industry Officers covering related subject matter fields, the incumbent will provide specialist technical advice and assistance on a global basis in the fields of fishing operations and management and will respond to current needs for implementation of the Code of Conduct for Responsible Fisheries and related instruments such as the International Plans of Action as well as the elaboration of technical guidelines. This is a P-5 position on the UN scale.

Closing date: 30 June 2005

Further information: <www.fao.org/VA/PROF/1400fiE.htm>

Executive Officer

- ASCOBANS (Bonn, Germany)

The Secretariat of the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS) is looking for an Executive Officer to report to the Executive Secretary of the Convention on the Conservation of Migratory Species of Wild Animals. Principal tasks include: representing ASCOBANS at national and international levels; coordinating and supervising the activities of the Secretariat; organizing meetings of the Parties, meetings of the Advisory Committee and briefing sessions for high-ranking governmental officials and technical staff; coordinating and/or overseeing the implementation of the Agreement, identifying problems and seeking to solve these problems or to facilitate their solution; developing proposals to improve the implementation of the Agreement; and establishing working relationships with the Secretariats of other Multilateral Environmental Agreements (MEAs).

Closing date: 7 June 2005

Further information: <hq.unep.org/vacancies/Display.asp?PostID=BA/6020-01-04-1101>

National employment opportunities: governmental

American Fisheries Society Job Centre

The American Fisheries Society hosts an online job centre, sorted according to the minimum level of education required: BA, MS and PhD. Student opportunities and temporary positions are also listed. The listings cover both governmental and non-governmental (mainly academic/research) positions, almost exclusively in the United States.

Closing date: various

Further information: <www.fisheries.org/html/jobs>

National employment opportunities: non-governmental

Assistant Marine Planner

- California Marine Life Protection Act Initiative (California, USA)

The incumbent will provide technical planning support to the Marine Life Protection Act (MLPA) Central Coast Project staff and Central Coast Regional Stakeholder Group in developing alternative proposals for marine protected areas (MPAs) in state waters in the region from Pigeon Point to Point Conception, California. BS or MS in marine science or geography and several years experience in conservation planning, marine reserve design, marine GIS or similar required. Experience working in multi-disciplinary teams or with stakeholder working groups a benefit. Strong written and oral communication skills are necessary. The contract is from 15 June 2005 to 31 December 2005.

Closing date: 15 June 2005

Further information: <www.dfg.ca.gov/Mrd/mlpa/index.html>

Study and internship opportunities

OceanLaw: Research ‘externships’ in international fisheries law

OceanLaw is currently looking for new volunteers to supplement its existing team of research assistants/editors for assistance in the maintenance and development of its existing publications – the Internet Guide to International Fisheries Law and International Fisheries Law and Policy Review. Volunteers should have an established record of research in any area relating to fisheries law, management or policy and should also preferably hold at least a master’s degree qualification in a related field or have equivalent research or professional experience. These positions would ideally suit junior university academics, NGO workers and graduate students with a sound understanding of one or more of the areas of law concerned. Ideally, we are looking for people able to make a commitment of around 4–5 hours per month over 2 years. These positions are not remunerated, but volunteer researchers receive an acknowledgement on the website and free access to OceanLaw subscription services.

Further information: <www.oceanlaw.net/opportunities.htm>

Internships at the IOSEA Secretariat

The IOSEA Marine Turtle MoU Secretariat accepts internships of four to six months’ duration, to assist with activities aimed at promoting implementation of the IOSEA Memorandum of Understanding. The internships will be conducted in Bangkok in the offices of the UNEP Regional Office for Asia and the Pacific, where the IOSEA Secretariat is co-located. In principle, an internship can begin at any time, but the actual timing and duration may depend on the Secretariat’s annual programme of work. Applicants must be enrolled in a degree programme in a graduate school (second university degree or higher) at the time of application and during the internship. In some cases, candidates who have completed at least four years of full-time studies at a university or equivalent institution may be accepted. Apart from contributing to the work of the IOSEA Marine Turtle MoU, the internship programme offers a good opportunity for young people to become acquainted with the work of the United Nations, and to experience a multi-cultural environment. All expenses connected with the internship, which is not remunerated, must be borne by the individual or by a sponsoring government or institution.

Further information: <www.ioseaturtles.org>

Rhodes Academy of Oceans Law and Policy

The tenth session of the Rhodes Academy of Oceans Law and Policy will take place from 3 to 22 July 2005. The deadline to submit applications is 1 April 2005. The Rhodes Academy of Oceans Law and Policy is an international collegial institution dedicated to fostering a better understanding of the modern law of the sea. The Academy entails an intensive, three-week course of study, with lectures by leading jurists, practitioners and international law faculty from around the world.

Although it is a single course of study, the programme is divided into two distinct units. The first two weeks focus on the foundations of modern oceans law, recent developments and an overview of the 1982 United Nations Conference of the Law of the Sea. In the second week, several short courses address specific topics under the rubric of oceans law and policy. The third week typically focuses on an issue of current concern to the international community. Passing an optional examination enables students to receive a diploma from the Rhodes Academy.

Further information: <www.virginia.edu/colp/Rhodesmain.htm>

Conferences, events and calls for papers

2005 NAAFE Forum

- 25-27 May 2005, Vancouver, Canada

The third biennial forum of the North American Association of Fisheries Economists will take place in Vancouver, 22-27 May 2005. The goal is to provide a platform for fisheries economists, policy-makers, intergovernmental and non-governmental organization representatives and fisheries stakeholders to meet, analyze fisheries problems and explore workable and effective solutions to fisheries problems. Although the focus will be on economics, the forum will take an inclusive approach to other social and biological science perspectives on fisheries problems and management.

Further information: <www.feru.org/events>

Legal Aspects of the Enforcement of the Rules of the Common Fisheries Policy

- 20 June 2005, Brussels, Belgium

This one-day conference will take place in Brussels, Belgium, on 20 June 2005. Invited experts and Commission officials will discuss a range of issues concerning legal aspects of the enforcement of the CFP, including: investigative cooperation and mutual administrative assistance; the effective application of sanctions; the enforcement of the rules of the Common Fisheries Policy in decentralized States; the Common Fisheries Policy and the competence of the International Tribunal for the Law of the Sea; and fisheries prosecutions.

Further information: <www.intfish.net/announcements/announcements.htm>

Economic Effects of Climate Change on Fisheries

- 20-21 June 2005, Bergen, Norway

The Centre for Fisheries Economics in Bergen, Norway, is hosting a workshop on the economic effects of climate change on fisheries. Papers at the workshop will focus on climate change effects in a number of fisheries in the North Atlantic and elsewhere around the world. A selection of papers presented at the workshop will be published in *Natural Resource Modelling*.

Further information: <www.snf.no>

People and the Sea III: New Directions in Coastal and Maritime Studies

- 7-9 July 2005, Amsterdam, the Netherlands

The Centre for Maritime Research (MARE) at the University of Amsterdam will host its third conference, *People and the Sea III: New Directions in Coastal and Maritime Studies*. The conference will take place from 7 to 9 July 2005 in Amsterdam, the Netherlands. The major themes of the conference are: fisheries; integrated coastal zone development; maritime work worlds; and maritime risks and vulnerability.

Further information: <www.marecentre.nl/people_and_the_sea_3>

Third International Fishers' Forum

- 25-29 July 2005, Yokohama, Japan

The Organization for the Promotion of Responsible Tuna Fisheries (OPRT) is hosting the meeting, with support from the Japan Fisheries Agency and US Western Pacific Regional Fishery Management Council. The forum will continue discussions from the two previous International Fishers' Forums, focussing on preventing the accidental capture of seabirds and sea turtles in longline fisheries and will also address other globally important issues, including sustainable tuna and shark fisheries; fishing capacity; production; marketing; consumption monitoring; and illegal, unregulated and unreported fisheries.

Further information: <www.fishersforum.org>

American Fisheries Society 135th Annual Meeting

- 11-15 September 2005, Anchorage, Alaska

The meeting's theme will be Creating a Fisheries Mosaic: Connections Across Jurisdictions, Disciplines and Cultures. The collection of events, symposia and contributed papers is intended to be a "stimulating mosaic" of fishery and aquatic science and culture.

Further information: <www.wdafs.org/Anchorage2005>

2005 National Forum on Contaminants in Fish

- 18-21 September 2005, Baltimore, Maryland, United States

Discussions will focus on state, tribal and federal activities related to managing health risks and benefits of consuming fish. The forum is organized by the US Environmental Protection Agency.

Further information: <www.epa.gov/waterscience/fish>

ICES Annual Science Conference

- 20-24 September 2005, Aberdeen, UK

This is the Annual Science Conference of the International Council for the Exploration of the Sea (ICES). The conference will bring together leading marine scientists from around the world, but with a focus on the North Atlantic. The four major themes to be addressed at the conference are: Understanding the Physical, Chemical and Biological Functioning of Marine Ecosystems; Understanding and Quantifying Human Impacts on Marine Ecosystems, including Living Marine Resources; Evaluating Options for Sustainable Marine-related Industries, Particularly Fishing and Mariculture; and Advising on the Sustainable Use of Living Marine Resources and Protection of the Marine Environment.

Further information: <www.ices.dk/iceswork/asc/2005>

Eighth International Shellfish Restoration Conference

- 2-5 October 2005, Brest, France

The 8th International Conference on Shellfish Restoration (ICSR '05) is designed to provide an opportunity for scientists, government officials, resource managers, users, community leaders and concerned citizens and the public to: exchange information about the biology, ecology and sustainable exploitation of shellfish resources; discuss approaches to restore coastal shellfish ecosystems through management, enhancement and restoration efforts; share innovative management, ecological and social approaches towards the restoration of degraded shellfish habitat and the improvement of coastal ecosystem health.

Further information: <www.ifremer.fr/icrs05>

31st Annual IAMSLIC Conference: Information for Responsible Fisheries: Libraries as Mediators

- 10-14 October 2005, Rome, Italy

This is the 31st Annual Conference of the International Association of Aquatic and Marine Science Libraries and Information Centres (IAMSLIC). The conference will discuss the information required in support of responsible fisheries, with sessions covering the creation, use and understanding of innovative information management techniques and technology. The conference

will explore the role of libraries as mediators in providing access to the complexity of information and the opportunities and challenges for securing access over the long term. Navigating the issues of Open Access and the intricacies of Open Archives requires new skills as well as stronger collaboration between libraries.

Further information: <www.nefsc.noaa.gov/nefscslibrary/2005iamslic/2005home>

International Conference on Integrated Ocean Policy

- 10-14 October 2005, Lisbon, Portugal

Under the full title *International Conference on Integrated Ocean Policy: National and Regional Experiences, Prospects, National and Regional Experiences, Prospects, and Emerging Practices*, this conference will examine the growing experience around the world with the formulation and implementation of integrated ocean policies at national and regional levels, with the intent of drawing lessons and suggesting emerging best practices. It is intended to bring together key national level officials, regional organizations, UN agencies, scholars specializing in national ocean policy, donors, non-governmental organizations and industry.

Further information: <www.globaloceans.org>

Organization of Fish and Wildlife Information Managers 2005

- 17-21 October 2005, Tallahassee, Florida, United States

The key to making crucial decisions regarding conservation actions and initiatives usually comes down to the data. Information is therefore a vital component. Completing the life cycle of data, from collection through analysis to its flow around the world, takes a coordinated effort that is dependent on innovative uses of information technology. This programme is directed towards demonstrating how new technologies are enhancing the effectiveness of environmental conservation across the continent.

Further information: <www.ofwim.org>

Interactions between Aquaculture and Wild Stocks of Atlantic Salmon and other Diadromous Fish Species: Science and Management, Challenges and Solutions

- 18-21 October 2005, Bergen, Norway

In October 2005, ICES and NASCO will co-convene a major international symposium entitled *Interactions between Aquaculture and Wild Stocks of Atlantic Salmon and other Diadromous Fish Species: Science and Management, Challenges and Solutions*. The objectives of the symposium are to: summarize available knowledge on the interactions between aquaculture and wild stocks of Atlantic salmon and other diadromous species; identify gaps in current understanding of these interactions and develop recommendations on future research priorities; review progress in managing these interactions, the challenges that remain and possible solutions; and make recommendations for additional measures, including cooperative ventures between the various stakeholders, to ensure that aquaculture practices are sustainable and consistent with the precautionary approach. The symposium will be held in Bergen, Norway, during 18-21 October 2005.

Further information: <www.nasco.int/2005_symposium.htm>

First International Marine Protected Areas Congress

- 23-27 October 2005, Geelong, Australia

The First International Marine Protected Areas Congress (IMPAC 1), co-sponsored by IUCN World Commission on Protected Areas, Parks Victoria and the Great Barrier Reef Marine Park Authority, will take place in Australia in October 2005. The objectives of IMPAC 1 (recognizing that the term MPA includes all six categories defined by IUCN) are to: embrace the entire global range of marine protected areas including, but not limited to, in-shore (integrated coastal zone management), reef, deep water, high seas and remote locations; develop a blueprint for partnerships between MPA managers, fisheries managers, management agencies, indigenous peoples, local

communities and industries reliant on marine resources to ensure that marine ecosystems are sustained into the future; provide examples or models of best practice approaches for biodiversity and ecological processes through the management of MPAs; address important or emerging issues affecting or likely to affect the future existence, value qualities and effectiveness of MPAs; and to explore innovative approaches and possible solutions to enable effective management of these issues.

Further information: <www.impacongress.org>

World Pelagics 2005: Outlook for Global Pelagic Market and Fisheries Management

- 24-25 October 2005, Cape Town, South Africa

The conference – which is firmly business-focussed – will cover a full range of topics, focussing on the challenges and opportunities facing the modern pelagic industry. The conference will be the first port of call as industry assesses what investments it needs to make and the overall impact on the southern African pelagic sector.

Further information: <www.infofish.org/pdf/World%20Pelagics%202005.pdf>

Fish Africa and Aquaculture Africa

- 26-28 October 2005, Cape Town, South Africa

Fish Africa is a business-focussed exhibition for the fisheries industry, which claims a proven track record of attracting key investors, fleet owners and decision-makers from the entire sub-Saharan region and far beyond: the last show in 2003 attracted visitors from a record 39 countries. The exhibition will take place in October in Cape Town, South Africa.

Further information: <www.heywayevents.com/fish_africa_2005>

9th International Wildlife Law Conference

- 4-5 November 2005, New Orleans, United States

The 9th International Wildlife Law Conference will take place at Tulane University Law School, New Orleans, in November 2005. The conference will be organized around five panel sessions dealing with: sea turtle conservation regimes; the Convention on International Trade in Endangered Species (CITES); international rivers and conservation of species; Caribbean wildlife conservation regimes; and Antarctic wildlife conservation regimes.

Due to the Hurricane Katrina tragedy in New Orleans, the 9th International Wildlife Law Conference has been postponed until the autumn of 2006. Additional information on the conference will be posted on the Conference website in due course.

Further information: <www.internationalwildlifelaw.org/programs2>

58th Annual Meeting of the Gulf and Caribbean Fisheries Institute

- 7-11 November 2005, Isla San Andrés, Colombia

The 58th meeting of the Gulf and Caribbean Fisheries Institute will take place in November on the Colombian island of San Andrés. The meeting is hosted by Coralina, which will be celebrating its tenth year of managing the coral reef resources of the San Andrés archipelago. Including technical sessions on MPA science, spawning aggregations and fisheries management, among other subjects, the meeting will also include the annual meeting of the CAMPAM network and forum.

Further information: <www.gcfi.org>

Third Global Conference on Oceans, Coasts and Islands

- 23-27 January 2006, Paris, France

The Global Forum on Oceans, Coasts and Islands serves as a platform for cross-sectoral information sharing and dialogue on issues affecting oceans, coasts and islands, with the goal of achieving sustainable development in these areas. The Global Forum has already organized two

major global oceans conferences hosted by UNESCO's Intergovernmental Oceanographic Commission. The Third will continue the work, discussing a range of ocean issues.

Further information: <www.globaloceans.org>

First International Symposium on Mangroves as Fish Habitat

- 7-9 February 2006, Miami, Florida, United States

The intent of this symposium is to provide an oral and written forum for the exchange of ideas, approaches, methods and pertinent data on the linkages between mangrove forests and the fishes and fisheries associated with them. A core of international experts will be invited to lead discussion on the major issues and questions raised.

Further information: <www.rsmas.miami.edu/conference/mangrove-fish-habitat>

Sharing the Fish 2006

- 23 February – 2 March 2006, Perth, Australia

This conference is being organized by the Western Australian Department of Fisheries, in conjunction with the Department of Agriculture, Fisheries and Forestry and the Ministry of Fisheries (New Zealand). The concept of allocation issues is one of increasing national and international interest to those involved in fisheries management. This conference will adopt a broad focus on a wide spectrum of allocation issues, presented by speakers from around the world who represent government, industry and various stakeholder interests.

Further information: <www.fishallocation.com>

Calls for papers

Economic Effects of Climate Change on Fisheries

- 20-21 June 2005, Bergen, Norway

The Centre for Fisheries Economics in Bergen, Norway, is hosting a workshop on the economic effects of climate change on fisheries. The deadline for the submission of abstracts is 1 May 2005. A selection of papers presented at the workshop will be published in *Natural Resource Modelling*.

Further information: <www.snf.no>

Sharing the Fish 2006

- 23 February – 2 March 2006, Perth, Australia

This conference is being organized by the Western Australian Department of Fisheries (DoF) in conjunction with the Department of Agriculture, Fisheries and Forestry (DAFF) and the Ministry of Fisheries (New Zealand). The concept of allocation issues is one of increasing national and international interest to those involved in fisheries management. All participants will benefit from the conference's focus on a broad spectrum of allocation issues presented by speakers from around the world who represent government, industry and various stakeholder interests. The call for papers is currently open, and the deadline for the submission of abstracts is 15 November 2005.

Further information: <www.fishallocation.com>

Calendar of international meetings 2005
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APRIL

OECD: 95th Session of the Committee on Fisheries

4-6 April, Paris, France
www.oecd.org

Pacific Islands Coastal and Community Fisheries Legislation and Management Workshop

4-8 April, Nadi, Fiji
www.spc.int/coastfish/meetings

North-East Atlantic Fisheries Commission (NEAFC): Extraordinary Meeting of the Permanent Committee on Control and Enforcement (PECCOE)

5-7 April, London, United Kingdom
www.neafc.org

Black Sea Commission: Extraordinary Meeting

11-12 April, Istanbul, Turkey
www.blacksea-commission.org/Calendar/index.htm

Commission on Sustainable Development (CSD): 13th Session

11-22 April, New York, United States
www.un.org/esa/sustdev

North-East Atlantic Fisheries Commission (NEAFC): Meeting of the Advisory Group for Data Communications

12 April 2005, Reykjavík, Iceland
www.neafc.org

Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS): 12th Meeting of the Advisory Committee

12-14 April, Brest, France
www.ascobans.org/index0401.html

Northwest Atlantic Fisheries Organization (NAFO): Meeting of the Standing Committee on International Control (STACTIC)

13-15 April, Copenhagen, Denmark
www.nafo.int

FAO/ICES Working Group on Fishing Technology and Fish Behaviour

16 April, Rome, Italy
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25284

South West Indian Ocean Fisheries Commission (SWIOFC): 1st Session

18-20 April, Mombassa, Kenya
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25863

International Commission for the Conservation of Atlantic Tunas (ICCAT): 3rd Meeting of the Working Group to Develop Integrated and Coordinated Atlantic Bluefin Tuna Management Strategies

20-23 April, Fukuoka, Japan
www.iccat.es/meetingscurrent.htm

North Pacific Anadromous Fish Commission (NPAFC): Research Planning and Coordinating Meeting

21-22 April, Nanaimo, Canada
www.npafc.org/events/other

North-East Atlantic Fisheries Commission (NEAFC): Working Group on the Future of NEAFC

26 April, London, United Kingdom
www.neafc.org

North-East Atlantic Fisheries Commission (NEAFC): Working Group on Deep-Sea Species

27-28 April, London, United Kingdom
www.neafc.org

MAY

Stockholm Convention on Persistent Organic Pollutants (POPs): First Meeting of the Conference of the Parties

2-6 May, Punta del Este, Uruguay
www.pops.int/documents/meetings

Commission on Sustainable Development (CSD): 13th Session

2-13 May, New York, United States
www.un.org/esa/sustdev

Regional Commission for Fisheries (RECOFI): 3rd Session

9-11 May, Doha, Qatar
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=15746

North Pacific Anadromous Fish Commission (NPAFC): Enforcement and Evaluation and Coordination Meeting

18-19 May, Vladivostok, Russia
www.npafc.org/events/other.htm

Convention on International Trade in Endangered Species (CITES): 21st Meeting of the Animals Committee

20-25 May, Geneva, Switzerland
www.cites.org/eng/com/AC/index.shtml

Indian Ocean Tuna Commission (IOTC): 9th Session

30 May-3 June, Victoria, Seychelles
www.iotc.org/English/meetings/comm/comcurrent.php

International Whaling Commission (IWC): 57th Annual Meeting

30 May-10 June, Ulsan, Republic of Korea
www.iwcoffice.org/meetings/meeting2005.htm

UNEP Mediterranean Action Plan: 7th Meeting of National Focal Points for SPAs

31 May-3 June, Seville, Spain
www.rac-spa.org

24th Annual Meeting of the Parties to the Nauru Agreement; 10th Annual Meeting of the Parties to the Palau Arrangement; 10th Annual Meeting of the Parties to the FSM Arrangement

31 May-4 June, Majuro, Marshall Islands
www.ffa.int

JUNE

FAO/GLOBEC Scientific Steering Committee Meeting

1-3 June, Rome, Italy
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25864

Forum Fisheries Committee: 59th Annual Session

6-10 June, Majuro, Marshall Islands
www.ffa.int

North Atlantic Salmon Conservation Organization (NASCO): 22nd Annual Meeting

6-10 June, Vichy, France
www.nasco.int

United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea: 6th Meeting

6-10 June, New York, United States
www.un.org/Depts/los

FAO: Regional Workshop on Low-Value and 'Trash Fish' in the Asia-Pacific Region

7-9 June, Halong Bay, Vietnam
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25795

International Dolphin Conservation Program (IDCP): 13th Meeting of the Parties to AIDCP, 39th Meeting of the International Review Panel (and other meetings)

13-15 June, Lanzarote, Spain (Canary Islands)
www.iattc.org/MeetingsENG.htm

Convention on Biological Diversity (CBD): Ad Hoc Open-Ended Working Group on Protected Areas
13-17 June, Montecatini, Italy
www.biodiv.org/doc/meeting.aspx?mtg=PAWG-01

15th Meeting of State Parties to the United Nations Convention on the Law of the Sea
16-24 June, New York, United States
www.un.org/Depts/los/meeting_states_parties/meeting_states_parties

Inter-American Tropical Tuna Commission (IATTC): 73rd Commission Meeting (and other meetings)
20-24 June, Lanzarote, Spain (Canary Islands)
www.iattc.org/MeetingsENG.htm

Second Consultative Workshop on Strategic Partnership for a Sustainable Fisheries Investment Fund for Sub-Saharan Africa
22-24 June, Dar-es-Salaam, Tanzania
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=31378

International Commission for the Conservation of Atlantic Tunas (ICCAT): Meeting of the Key Contacts of the WG to Consider the Development of a Compendium of Management Recommendations and Resolutions
27-28 June, Madrid, Spain
www.iccat.es/meetingscurrent.htm

OSPAR: Meeting of the Commission
27 June-1 July, Malahide, Ireland
www.ospar.org

Convention on International Trade in Endangered Species (CITES): 53rd Meeting of the Standing Committee
27 June-1 July, Geneva, Switzerland
www.cites.org/eng/com/SC/index.shtml

North-East Atlantic Fisheries Commission (NEAFC): Working Group on the Future of NEAFC
28 June, Brussels, Belgium
www.neafc.org

JULY

FAO: National Coordinators Global Review Meeting
10-16 July, Manzanillo, Mexico
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=34133

Convention on Biological Diversity (CBD): Ad Hoc Technical Expert Group on Implementation of Integrated Marine and Coastal Area Management
11-15 July, Montreal, Canada
www.biodiv.org/meetings/default.aspx?dur=upcoming&ord=sbjt

Regional Workshop of Experts for the Development of a Marine Mammal Action Plan for the Wider Caribbean
18-21 July, Bridgetown, Barbados
www.cep.unep.org/meetings/2005/mmap-workshop/

Global Fisheries Enforcement Training Conference
18-22 July, Kuala Lumpur, Malaysia
www.globalenforcement.org

International Maritime Organization (IMO): 53rd Session of the Marine Environment Protection Committee
18-22 July, London, United Kingdom
www.imo.org/Newsroom/mainframe.asp?topic_id=101

FAO: Expert Consultation on Fisheries Access, Regulating and Sustainability of Small-scale Fisheries in Latin America
18-27 July, Lima, Peru
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25779

Tsunami – Aceh Workshop to Develop Strategy for Sustainable Aquaculture Rehab
19-21 July, Aceh, Indonesia

www.enaca.org/modules/news/article.php?storyid=575

AUGUST

Western and Central Pacific Fisheries Commission (WCPFC): First Meeting of the Scientific Committee

8-19 August, Noumea, New Caledonia
www.wcpfc.org

Asia Pacific Fisheries Commission (APFIC) Regional Workshop on Coastal and Inland Fishery Co-management in the Asia-Pacific Region

9 August, Siem Reap, Cambodia
www.apfic.org/modules/news/article.php?storyid=33

NEPAD-Fish for All Summit

21-25 August, Abuja, Nigeria
www.fishforall.org/ffa-summit/africasummit.asp

Asia Pacific Fisheries Commission (APFIC) Executive Committee Meeting: 70th Session

23-25 August, Kuala Lumpur, Malaysia
www.apfic.org/modules/news/article.php?storyid=32

United Nations: 16th Session of the Commission on the Limits of the Continental Shelf (CLCS)

29 August-2 September, New York, United States
www.un.org/Depts/los

Regional Workshop on the Elaboration of National Plans of Action to Deter, Eliminate and Prevent Illegal, Unreported and Unregulated Fishing: 3rd Session

29 August-2 September, Nadi, Fiji Islands
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=14806

SEPTEMBER

FAO/OSPESCA Expert Meeting on the Regional Review of Aquaculture Development Trends in Latin America and the Caribbean

4-6 September, Panama City, Panama
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=31839

International Baltic Sea Fishery Commission (IBSFC): 31st Session

5-9 September, Sweden
www.ibsfc.org

10th Annual Conference of the Parties to the Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea

6-9 September, Cheju Island, Republic of Korea
www.afsc.noaa.gov/refm/cbs/

Western and Central Pacific Fisheries Commission (WCPFC): Informal Consultations

8-13 September, Tokyo, Japan
www.wcpfc.org

Northwest Atlantic Fisheries Organization (NAFO): 27th Annual Meeting

19-23 September, Dartmouth, Canada
www.nafo.int

FAO/FishCode/WorldFish: Stakeholders Workshop on Interdisciplinary Approaches to the Assessment of Small-Scale Fisheries

20-22 September, Rome, Italy
www.fao.org/fi/NEMS/events/detail_event.asp?event_id=31835

By-Catch Workshop

26-30 September, Kota Kinabalu, Malaysia

North Pacific Marine Science Organization (PICES): 14th Annual Meeting

29 September-9 October, Vladivostok, Russia
www.pices.int/meetings/annual/PICES14/default.aspx

OCTOBER

South East Atlantic Fisheries Organization (SEAFO): 2nd Annual Meeting

3-5 October, Windhoek, Namibia

www.seafo.org

OSPAR: Working Group on Marine Protected Areas, Species and Habitats

3-7 October, Bristol, United Kingdom

www.ospar.org

Helsinki Commission (HELCOM): 7th Meeting of the Nature Conservation and Biodiversity Group

10-14 October, Sweden

www.helcom.fi/events/en_GB/10-14-10-05

Joint Meeting of the NAMMCO Scientific Committee Working Group on the Population Status of Narwhal and Beluga in the North Atlantic and the Canada/Greenland Joint Commission on Conservation and Management of Narwhal and Beluga Scientific Working Group

11-14 October, Nuuk, Greenland

www.nammco.no/meetings.htm

Commission for the Conservation of Southern Bluefin Tuna (CCSBT): 12th Annual Meeting

11-15 October, Narita, Japan

www.ccsbt.org/docs/meeting/meeting.html

North-East Atlantic Fisheries Commission (NEAFC): Meeting of the Permanent Committee on Control and Enforcement (PECCOE)

12-13 October, London, United Kingdom

www.neafc.org

North-East Atlantic Fisheries Commission (NEAFC): Advisory Group for Data Communication

13 October, Copenhagen, Denmark

www.neafc.org

Inter-American Tropical Tuna Commission (IATTC): 20th Meeting of the Tuna Tracking Working Group and 6th Meeting of the Working Group to Promote and Publicise the Dolphin Safe Tuna Certification System

18 October, La Jolla, California, USA

www.iattc.org/MeetingsENG.htm

7th Global Meeting of the Regional Seas Conventions and Action Plans

18-20 October, Helsinki, Finland

www.unep.org/regionalseas/RS_Global_Meetings/default.asp

International Dolphin Conservation Program (IDCP): 40th Meeting of the International Review Panel

19 October, La Jolla, California, USA

www.iattc.org/MeetingsENG.htm

14th Meeting of the Parties to the Agreement on the International Dolphin Conservation Program (AIDCP)

20 October, La Jolla, California, USA

www.iattc.org/MeetingsENG.htm

Committee for the Eastern Central Atlantic Fisheries (CECAF) Scientific Sub-Committee: 4th Session

24-26 October, Accra, Ghana

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=14594

North Pacific Anadromous Fisheries Commission (NP AFC): 13th Annual Meeting

24-28 October, Jeju Island, Republic of Korea

www.npafc.org/events/am.html

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR): XXIVth Meeting

24 October-4 November, Hobart, Australia

www.ccamlr.org/pu/e/cc/mtgs-intro.htm

North Atlantic Marine Mammal Commission (NAMMCO) Scientific Committee: 13th Meeting

25-27 October, Reine, Norway

www.nammco.no/meetings.htm

Western Central Atlantic Fishery Commission (WECAFC): 12th Session; Committee for the Development of Fisheries in the Lesser Antilles: 9th Session

25-28 October, Port of Spain, Trinidad and Tobago

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=24553

General Fisheries Commission for the Mediterranean (GFCM) Scientific Advisory Committee: 8th Session

25-28 October, Tirana, Albania

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=24560

NOVEMBER

Third Meeting of the Scientific and Technical Advisory Committee (STAC) to the Protocol Concerning Specially Protected Ares and Wildlife (SPAW) in the Wider Caribbean Region

4-7 October, Caracas, Venezuela

www.cep.unep.org

Inter-American Tropical Tuna Commission (IATTC): Workshop on Stock Assessment Methods

7-11 November, La Jolla, California, USA

www.iattc.org/MeetingsENG.htm

Mediterranean Action Plan/Barcelona Convention: 14th Meeting of the Parties

8-11 November, Portoroz, Slovenia

www.unepmap.org

North East Atlantic Fisheries Commission (NEAFC): Annual Meeting

14-18 November, London, United Kingdom

www.neafc.org

FAO: Expert Consultation on Fish Utilization in Africa

14-18 November, Bagamoyo, Tanzania

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=14579

International Commission for the Conservation of Atlantic Tunas (ICCAT): Meeting of the Commission

14-20 November, Seville, Spain

www.iccat.es/meetingscurrent.htm

Convention on Migratory Species (CMS): 8th Meeting of the Conference of the Parties

20-25 November, Nairobi, Kenya

www.cms.int/bodies/index.htm

International Maritime Organization (IMO): 24th Session of the Assembly and 95th Session of the Council

21 November-2 December, London, United Kingdom

www.imo.org

FAO: Regional Workshop on the Elaboration of National Plans of Action to Deter, Eliminate and Prevent Illegal, Unreported and Unregulated Fishing: 4th Session

28 November-2 December, Accra, Ghana

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=14305

3rd Coral Reef Meeting

29 November-1 December, Cancun, Mexico

www.somac.org.mx/iicmac

DECEMBER

FIRMS Technical Working Group Meeting: 1st Session

5-8 December, Rome, Italy

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=32461

Convention on Biological Diversity (CBD): 11th Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)

5-9 December, Guatemala

www.biodiv.org/meetings/default.aspx

Western and Central Pacific Fisheries Commission (WCPFC) Technical and Compliance Committee: 1st Regular Session

5-9 December, Pohnpei, Federated States of Micronesia

www.wcpfc.org/tcc1/index.htm

Expert Consultation to Review Implementation of National Plans of Action – Sharks

6-8 December, Rome, Italy

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=31841

Regional Workshop on the Elaboration of National Plans of Action to Deter, Eliminate and Prevent Illegal, Unreported and Unregulated Fishing: 5th Session (Certain Countries of the Near East Region)

11-15 December, Cairo, Egypt

www.fao.org/fi/NEMS/events/detail_event.asp?event_id=25860

Western and Central Pacific Fisheries Commission (WCPFC): 2nd Session

12-16 December, Pohnpei, Federated States of Micronesia

www.wcpfc.org

For a fuller list of meetings, see <www.intfish.net/announcements/calendar.htm>



Internet Guide to International Fisheries Law 2007

Incorporating:
IFLEX Database
International Fisheries Law and Policy Review
International Fisheries Law Yearbook
International Fisheries Agreements Online

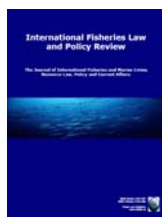
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IFA Online

International Fisheries Agreements Online is a supplement to the multilateral treaty section of IFLEX and provides a detailed profile and analysis of each multilateral treaty in the IFLEX database. It is comprehensively reviewed each year.

IGIFL 2007
www.intfish.net/igifl2007

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