

Policy Research – Implications of Liberalization of Fish Trade for Developing Countries

Synthesis Report

T. Bostock, P. Greenhalgh and U. Kleih



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The Natural Resources Institute (NRI) of the University of Greenwich is an internationally recognized centre of expertise in research and consultancy in the environment and natural resources sector. The Institute carries out research and development and training to promote efficient management and use of renewable natural resources in support of sustainable livelihoods.

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Copies of the full Trade Issues, Case Studies and background material will be available from the following websites:

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www.onefish.org/id/225570

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Abbreviations

ACP	Africa, Caribbean and Pacific
ADMs	Anti-Dumping Measures
CSR	Corporate Social Responsibility
DFID	Department for International Development
DWF	Deep-water Fleet
EEZ	Exclusive Fishing Zones of Coastal Nations
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FDA	Food and Drugs Administration
FOB	Free On Board
GDP	Gross Domestic Product
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HACCP	Hazard Analysis Critical Control Point
ITC	International Trade Commission
JETRO	Japanese External Trade Organization
MOU	Memorandum of Understanding
MSC	Marine State Stewardship Council
MPEDA	Marine Products Export Development Authority
NACA	Network of Aquaculture Centres in Asia Pacific
NGOs	Non-governmental Organizations
NRI	Natural Resources Institute
NTB	Non-tariff barriers
OECD	Organization for Economic Co-operation and Development
PPP	Public Private Partnerships
SCM	Subsidies and Countervailing Measures
SIFAR	Support unit for International Fisheries and Aquatic Research
SPS	Sanitary and Phytosanitary Measures
TAC	Technical Advisory Council
TBT	Technical Barriers to Trade
VND	Vietnam Dong
WHO	World Health Organization
WTO	World Trade Organization
WWF	World Wide Fund for Nature

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FAO/19585/G. Bizzarri

Caption: India. 1996. A scene at the Madras fish Market. Bicycles are the chief method of transport.

FAO/16789/P. Johnson

Caption: Lao PDR. 1992. Fishers at sunset in the south of Lao PDR on a tributary of the Mekong River. The Mekong, one of the largest and most important rivers in Asia, has 80 tributaries inside Lao PDR alone.

FAO/17373/K. Dunn

Caption: Uganda. 1994. In the Lukaya area near Entebbe, Uganda, a trader uses his bicycle to carry to market a huge Nile perch he bought from a fisherman on Lake Victoria. Lack of transport is a hindrance to Uganda's economic growth.

Case studies

A Case Study for Bangladesh. Fish Trade Liberalization in Bangladesh: Implications of SPS Measures and Eco-labelling for the Export-oriented Shrimp Sector. Dr Fahmida Akter Khatun, Centre for Policy Dialogue, Bangladesh.

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**ICM Integrated
Coastal Management**



Background

The Natural Resources Institute (NRI) of the University of Greenwich, UK, was commissioned by FAO/SIFAR to undertake a study on the *Implications of Liberalization of Fish Trade for Developing Countries*. The work was funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) and the UK's Department for International Development (DFID) and focuses on two main areas, namely:

- the preparation of background papers on selected trade issue topics
- case studies in five developing countries.

The principal objectives of the study were to increase our knowledge and understanding of the relationship between the achievement of sustainable development outcomes, and the existing provisions on international fisheries, particularly multilateral trade rules and bilateral agreements. An understanding of the possible impacts of changes in trade rules, in part as a result of future WTO negotiations is sought. Options for national and international fisheries and trade policies which address the needs of sustainable development will then be identified.

Issues related to fish trade liberalization, which have been investigated and are summarized in Part 1 include:

- Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT)
- the use of ethical, social and eco-labelling and certification
- fishery sector subsidies
- dumping of fish products

- fiscal reforms and trade in fisheries; this is a brief paper based on an earlier Workshop.

In addition, a paper was prepared outlining the international regulatory framework and trade barriers affecting the fish trade. This is not summarized in this synthesis paper.

Case studies, the findings of which are summarized in Part 2, were undertaken in which either one or two specific trade issues were analysed:

- Bangladesh – the implications of SPS measures and eco-labelling; this study was undertaken by Dr Fahmida Akter Khatun of the Centre for Policy Dialogue
- Guinea – the impact of subsidies; undertaken by Youssouf N'Dia
- India – the impact of subsidies and SPS measures; undertaken by Venkatesh Salagrama of Integrated Coastal Management
- Uganda – the implications of SPS and fiscal issues; undertaken by Boaz B. Keizire of Department of Fisheries Resources
- Vietnam – the dumping of catfish and shrimp; undertaken by Mr Nguyen Thanh Tung of GlobConsult Company, Vietnam, and Mike Phillips of the Network of Aquaculture Centres in Asia-Pacific.

The specific trade issues were analysed in terms of their impact on a number of interrelated areas including:

- impact on poverty and livelihoods, for example, on employment and income of poor participants in the export chain; food security of low-income consumer and producer groups; identification of groups that have gained as a result of trade liberalization, and those that

have lost out; the extent to which women operators in the fish marketing chain have been affected

- impact of trade liberalization on foreign exchange earnings and fiscal revenues
- impact on sustainable economic growth, for example, volumes of fish and fisheries trade; degree of value added to fish products
- impact on the sustainability of the resource base, for example, potential threat to the environment and aquatic resources upon which there is significant local dependency.

Part 3 contains some of the policy recommendations arising from the case study reports and the background trade issue papers produced.

Key Meetings

In undertaking this study, a number of key meetings have taken place:

- Initial NRI Team Meeting with SIFAR/FAO Study Co-ordinator (November 2003)

The NRI team of Peter Greenhalgh (NRI), Ulrich Kleih (NRI), Graeme Macfadyen (Poseidon) and Nigel Peacock (NAP Fisheries) met with Tim Bostock (SIFAR/FAO) to develop a work programme. Topics discussed included the selection criteria for case studies, possible topics for analysis including subsidies, hypothecation, dumping, ethical and eco-labelling issues.

- Inception Meeting at FAO, Rome (December 2003)

At an FAO Workshop various aspects of the project were discussed with interested FAO staff. Key outcomes arising from the meetings included:

- (i) case studies – time and financial constraints meant that only 4–5 case studies would be feasible, and these would have to build upon existing work and/or be undertaken in the near future

- (ii) the trade issue background papers should concentrate on specific topics being analysed in the case studies rather than an all-embracing review of the wide range of topics covered by trade policy issues; applied work in the fisheries sector on the impact of trade liberalization was minimal and, therefore, the case studies and the resultant policy recommendations would be a vital value added component
- (iii) the complementarity with FAO's own work in this area is important
- (iv) a similar methodology should be used for each case study.

- Visits to UK's Department for International Development (DFID) and GTZ, Germany (January 2004)

DFID and GTZ were briefed on progress and date, alongside discussions on methodology and case studies.

- Final Workshop at FAO, Rome (5–6 July 2004)

A Final Workshop was held in which the Trade Issues papers and the Case Study reports were presented. Arising from these presentations a number of policy recommendations were formulated, which are detailed in Part 3 of this report. In addition, Appendix 1 contains the Workshop Agenda and details of participants, while Appendix 2 summarizes a study on Seychelles swordfish and cadmium presented at the Workshop.

Case Study Deliberations and Methodology

Various discussions were held to identify possible case study countries and specific trade issues. As a result, five definite case studies were undertaken, namely Bangladesh, Guinea, India, Uganda and Vietnam. In addition, further case studies were considered in some detail but not undertaken, including studies relating to Cape Verde, Ghana and Senegal. For the undertaking of the case studies, the NRI team prepared various

documents. These included five papers relating to the international regulatory environment and trade issues (dumping, subsidies, food safety and ethical/eco-labelling issues); a methodology paper; a checklist for primary data collection; and a detailed outline of the structure of the case study reports and formatting requirements.

Methodology

The paper *Methodology for the Analysis of the Implications of Fish Trade Liberalization for Sub-sector Participants* provided an overview for the country study teams of the proposed approach to the study and outlines the main issues to be covered. The paper begins with a summary of the main steps before providing details of the main issues, including the building of a project partnership, approaching the topic, mapping of the commodity chain, understanding the

livelihoods context of the sub-sector participants, and the way forward. A note on data collection is included at the end of the paper. This was circulated to all the case study leaders prior to the commencement of the research.

In undertaking the case studies, a combination of sub-sector analysis and the Sustainable Livelihoods Approach was used to analyse the impact of the selected trade liberalization topics on key livelihoods issues (e.g. environment, employment, income, food security and gender). Fieldwork primarily used qualitative/participatory data collection techniques. The tools used included wealth ranking, semi-structured interviews, trend lines and calculations of production costs and marketing margins. Secondary literature was primarily used to provide an overview of the fishery sector and the country specific trade issues.

*Trade Issues:
Background Papers*

Part 1

Introduction

International trade in fish and fishery products has grown rapidly over the last two decades, with export values rising from US\$15 billion in 1980 to US\$56 billion in 2001. Meanwhile the share of developing countries' has risen from 40% to 50%, and their net receipts increasing from under US\$4 billion to almost US\$18 billion. Developed countries absorb 80% of world imports, with the USA, the EU and Japan being the dominant markets (Lem, 2003). However, increasingly complex requirements for food safety assurance and traceability set by major markets, particularly in the EU and North America, represent a threat to existing exporters and a 'barrier' to new entrants. Increasingly stringent quality standards create a bias in favour of countries with a highly developed infrastructure and larger suppliers with greater resources.

Increasing outbreaks of food-borne illness alongside consumer concerns over inter-regional disease transmission have driven the development of more stringent laws and regulatory frameworks. Thus, in 2005 the EU General Food Law (178/2002) will introduce a harmonized framework for food safety assurance from farm to the consumer across the 25 EU members. The EU food industry is responding with initiatives aimed at creating a due diligence defence on grounds of food safety assurance, environmental management and social welfare issues. Major importing countries are tightening their food safety legislation and demanding the adoption by exporting countries of agreed inspection, examination and certification procedures. These various measures can be viewed as non-tariff barriers (NTB) to trade and are becoming more restrictive.

The Sanitary and Phytosanitary Agreement and the Technical Barriers to Trade Agreement

As tariffs are reduced, alternative forms of protection might be utilized, including arbitrary technical barriers and sanitary and phytosanitary measures. The Uruguay Round Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT) adopted by WTO members in 1995 have given a new direction to the international food trade. These agreements are intended to ensure that requirements such as quality, labelling and methods of analysis applied to internationally traded goods are not misleading to the consumer or discriminate in favour of domestic producers or goods of different origin.

The SPS Agreement was set up to avoid sanitary standards being used as an unjustified barrier to trade by importing countries. There are several key principles including the sovereign right of a country to put protective measures in place, but these measures should not be more restrictive than necessary to achieve the appropriate level of protection. The Agreement stresses that SPS measures should be scientifically based as well as the importance of risk assessment in determining the appropriate levels of SPS measures. Of crucial importance are transparency in the development and implementation of measures and the adoption of international standards. The SPS Agreement gives status and legal force to the standards set by the Codex Alimentarius Commission. The Codex Alimentarius – or food code – was created in 1963

by FAO and WHO to develop food standards and guidelines and has become a global reference point for consumers, food producers and processors, national food control agencies and the international food trade.

The SPS Agreement applies only to measures covering food safety, animal and plant life and human health. Other technical measures outside this area come within the scope of the TBT Agreement. The SPS and TBT Agreements are thus complementary and mutually reinforcing.

The TBT Agreement tries to balance the trade-facilitating aspects of standards against their trade-distorting potential by obligating countries to ensure that technical regulations and standards, including packaging, marking and labelling requirements and procedures for assessment of conformity with technical regulations and standards, do not create unnecessary obstacles to international trade or discriminate in favour of domestic producers or goods of different origins. It does this by: encouraging 'standard equivalence' between countries; promoting the use of international standards; and mandating that countries notify each other of changes in their standards via enquiry points.

European Regulations

The EU has been at the forefront in developing food safety standards and has had a profound influence on the development of the seafood export industry in developing economies. EU standards are enforced and regulated at the country level and thus a restriction of exports to the EU under the regulations affects all members of the export community. For exports to other countries, such as the USA and Japan, the food safety import regulations are generally enforced at a company basis and so a restriction on imports will only affect one particular exporter.

A *country* has to be licensed to export to the EU, and then each individual exporting company has to apply to the 'competent authority' within the exporting country for permission to do so. This two-tier system in effect means that the EU

delegates authority for implementation and enforcement of its food safety legislation to the authorities in the exporting country. The main directive was published in 1991 (91/493/EEC – 'Laying down the health conditions for the production and the placing on the market of fishery products'). This directive applies equally to domestic and third country products and requires inspection to be undertaken. Apart from the main text there have been a number of complementary texts that expand upon and clarify the main directive. These are getting stricter; for example, in 2000–01 residue monitoring for veterinary medicines and heavy metal contamination as well as clearer labelling requirements were introduced.

EU legislation for all food products is being brought under one directive and the scope is being extended to all aspects of the supply chain from 'farm to fork'. This legislation will supersede the individual commodity-based directives. All the steps in the chain from primary producers (fishermen and aquaculture units) will need to take on board, in a more structured manner, the principles of Hazard Analysis Critical Control Point (HACCP) systems and other quality assurance needs thus broadening the scope of the competent authority in regulating the industry. The need to ensure that quality assurance measures are instituted prior to arrival at the processing factory gate will pose a major challenge to export industries, particularly for the small-scale and non-industrialized sectors of the industry. Of even greater concern might be the fact that, in order for the 'farm to fork' principle to be seen to be working, a system of traceability of products throughout the chain will need to be instituted. This will require that each person in the chain will be able to demonstrate that they know where the product has come from and where it has gone. A paper trail will thus be required tracking the movement of product. Where small quantities of product are consolidated into larger batches from, say, traditional fishermen to purchasers at landing points, this could present particular problems as mixing of batches will mean that particular raw material supplies cannot be traced back to source. The knock-on effects that this

might have on poor producers are yet to be ascertained.

In addition, the EU is the only one of the three principal importers to use safeguard measures on fishery products. The EU uses two types of measures:

- safeguard clause, i.e. quota tariffs to support the fish processing sector
- reference price system to stop imports undermining domestic prices.

Some EU examples

These strict food safety regulations, as the case studies from Bangladesh, India and Uganda illustrate, have caused serious difficulties for exporters of fishery products from developing countries. In 2001, the EU decided to examine 100% of shrimp products imported from China, Thailand, Vietnam, Indonesia and other countries because they discovered residual antibiotics in some products. EU authorities have initiated a food safety policy calling for ‘zero tolerance’ towards various antibiotics. However, there is no scientific evidence to show that a very low content of residue can be harmful to customers’ health. The issue of residual antibiotics in shrimp continues to be a cause for concern for exporting countries. Other countries, including India, Tanzania and Uganda, have faced import restrictions based on food safety concerns and there is no doubt that these regulations have caused serious difficulties for many developing country fish, particularly shrimp, exporters.

USA Regulations

Imports into the USA are regulated under the Federal Regulations, often referred to as 21 CFR 123 (see US FDA Centre for Food Safety and Applied Nutrition website - www.cfsan.fda.gov). These regulations apply to domestically produced products and imports. They require that processors of fish and fishery products operate preventive control systems that incorporate the seven principles of HACCP. This involves processors producing HACCP plans and making them available for “official review and copying at

reasonable times”. The essence of the regulations is that the purchaser/importer of the products should be able to demonstrate to the authorities that the products have been produced in a safe and acceptable manner. This implies that the producers are using a quality assurance system that incorporates HACCP, standard sanitary operating procedures and good manufacturing practices.

In June 2002, following the events of September 11 2001, the US passed the Bio Terrorism Act, which includes specific provisions that protect US citizens from food imports that are dangerous to human health.

The Food and Drugs Administration (FDA) is the main regulating agency in the USA and provides guidance and assistance to the industry in complying with the regulations. There are essentially two ways in which importers may verify their obligations under the regulations.

First, they may obtain products from a country which has an active equivalence or compliance agreement with the FDA covering fish and fishery products. The FDA is actively pursuing Memoranda of Understanding (MOU) with seafood trading partners, whereby the FDA has determined that the exporting country is operating a food safety regulatory system for seafood that ensures the exported product satisfies US safety concerns. Thus, the MOU puts the burden of HACCP verification and quality assurance on stakeholders in the exporting country.

Second, if no MOU exists, then importers can take their own ‘affirmative steps’ to ensure that their suppliers are processing in accordance with the regulations. The regulations do not mandate what the affirmative steps might be but give examples. In essence, an exporter requires a HACCP programme. The FDA enforces the HACCP requirements by examining products at point of entry including the importer’s place of business and records. If a foreign processor is discovered not to be implementing HACCP an ‘import alert’ can be issued and product shipments blocked until HACCP has been effectively implemented.

Some inspection authorities are producing lists of processors that are producing in accordance with US requirements. These lists if kept up to date may be used as a means of verification for importers that products are being produced in accordance with the regulations.

Japanese Regulations

While new regulations with regard to quality control, such as HACCP, have been adopted by all major importing countries and made compulsory for their fish processing industries, one notable exception is Japan. While some firms in Japan have implemented HACCP systems, there is no mandatory requirement either for domestic processors, or external suppliers. Standards for imports of fish and fishery products into Japan are governed by the legislation set out in the Food Sanitation Law and the Quarantine Law. The laws prohibit *inter alia* the imports for sale of unsanitary foods, foods not conforming to prescribed specifications of composition, standards of manufacture and storage. The consignments may be checked for signs of decomposition, presence of foreign matter and contaminants (e.g. antibiotic residues, mercury and pesticides). The law requires prior notification of imports and sanitary inspectors can undertake spot checks and laboratory tests. Following an initial check, then subsequent imports from the same manufacturer can be exempted from repeated inspections, and all that is usually required at import is examination of documentation. If a cargo has been inspected by an official laboratory in the exporting country for certain conditions and the inspection results are attached to the import notification, the cargo may be exempt from further inspection. Further information and details of regulations governing the import of seafood can be found on the Japanese External Trade Organization (JETRO) website <<http://www.jetro.go.jp/>>

Some Initial Conclusions Regarding SPS and TBT

Many developing countries face various problems associated with meeting SPS/TBT compliance, not only in the fishery sector but also in other

export sectors. In part, this is because the regulations often shift the burden of responsibility to exporting processor or trader, by making them fully responsible for the quality of the product in terms of food safety. There is little doubt the stricter enforcement of the regulations, particularly at the early stages of the supply chain, could marginalize small producers from export markets altogether. There are a number of specific solutions that can be suggested to assist developing countries overcome the various problems associated with SPS/TBT compliance.

At the *international level*, one definite need is for a greater understanding of the impact of SPS/TBT requirements on developing countries, since the various standards are not sensitive to their needs. There needs to be a greater recognition of the problems they face, alongside efforts to change institutional structures relating to SPS and TBT standard setting. There may be some potential to reform the international institutions responsible for SPS/TBT matters. Other possible solutions include improved transparency of SPS/TBT agreements; greater harmonization of SPS/TBT standards; improved mechanisms for the provision of legal and technical assistance, including legal assistance to participate in dispute settlement; and longer periods in which to achieve compliance would be beneficial.

At the individual *country level*, many developing fish exporting countries appear to have inadequate phytosanitary systems to meet the requirements of trading partners. There are a number of possible solutions to enhance their capability for complying with SPS/TBT requirements. Capacity building efforts are vital. These include the revision of own country administrative and technical arrangements for meeting SPS requirements including training in SPS/TBT issues. One particular area would be the use and application of risk analysis as part of the regulatory decision-making process; alongside the development of domestic control systems. Countries require adequate access to both scientific and technical information in order to ensure that their own measures are technically

sound, as well as in meeting the requirements of trading partners. In the broad sense, building capacities in-country will lead to a wider understanding and application of the principles contained in the SPS and TBT Agreements that are essential to a rules-based trading system. Greater regional co-operation between developing countries on SPS issues would be beneficial.

Finally, it is important to recognize that the impact of SBS/TBT measures is not always negative. These measures have had some positive impacts on developing fish exporting countries including improvements in fish quality management, improvements in the quality of products on the domestic market and enhanced export potential.

Review of Schemes

There is a wide range of certification schemes and initiatives related to standards, which are in various states of readiness – some dealing with social issues, and other concentrating more on sustainability and the environment. Some seek to provide accreditation (and allow the use of labels), while some just seek to establish recommendations about best practices or codes of practice.

Natural resources and fisheries/aquaculture schemes can usefully be divided into those that are organic in nature and those that are not.

Non-organic schemes

- Fundacion Chile
- Global Aquaculture Alliance
- Marine Stewardship Council
- Seafood Choices Alliance
- Marine Aquarium Council
- Industry Standards for the Live Reef Food Fish Trade
- Federation of European Aquaculture Producers Code of Conduct for European Aquaculture
- FAO Code of Conduct for Responsible Fisheries (CCRF)
- National Standards and Codes, for example, Thai Marine Shrimp Culture Codes of Conduct

Organic schemes

- International Federation of Organic Agriculture Movements

- Naturland Organic Standards
- Soil Association Certification Ltd
- National Association for Sustainable Agriculture Australia
- BioGro New Zealand Production Standards
- KRAV Kontroll AB Organic Standards
- Debio Organic Aquaculture Standards

It is striking that only a few of these initiatives, especially the organic ones, directly deal with social issues, and those that do almost unanimously place a far greater emphasis in reality on the environment, even if they mention social issues in policy statements and overall principles. There is also a wide range of social/environmental initiatives not specific to natural resources that may have relevance to fisheries. These include:

- International Social and Environmental Accreditation and Labelling Alliance
- ICFTU/ITS Basic Code of Labour Practice
- The International Labour Organization
- Ethical Trade Initiative
- Fair Trade
- EUREPGAP
- ISO 14001 Environmental Management System (and EMAS²)
- Social Accountability International
- Dow Jones Sustainability Indices
- Traceability requirements of retailers, which can include environmental and social information on their suppliers

¹ Paper prepared by Poseidon Aquatic Resource Management Ltd.

² European Eco-management and Audit Scheme.

- National Standards and Codes; as with fisheries-specific initiatives, there are numerous national standards and codes of conduct that address non-fisheries specific environmental and social issues

A Discussion of Issues and Impact

While certification and labelling schemes *may* offer the opportunity in some cases of higher prices and access to niche markets, many people have concerns (but little evidence) over the possible negative impacts on developing country producers. Concerns are based around a number of issues, highlighted in many studies, and grouped in a recent study by Gardiner and Viswanathan (2004) into a classification of concerns that is considered useful and, therefore, also used in this paper.

Legitimacy and credibility

Many schemes have largely been driven by large-scale producers and retailers in developed country markets, with a lack of real participation by small-scale and poor producers in developing countries. This lack of involvement has almost certainly meant that potentially negative impacts on such groups, and possible mitigating measures, have largely been ignored in the development of such initiatives.

A mismatch between certification requirements and the reality of tropical small-scale fisheries

The process of certification is felt by many to be far more relevant to developed northern countries, often with single species fisheries, than to tropical developing countries, many of which have mixed-species fisheries. Particular concerns relate to both the limited data available in many developing country contexts and which are necessary for certification, and the fact that management issues are often more complex in developing country contexts. In addition, where artisanal or small-scale fishermen compete for the same resource with

large-scale fishing units that use non-selective and environmentally destructive fishing methods and practices, under the MSC scheme small-scale fishers would not be in a position to benefit from an MSC certification programme because the unit of certification is the fishery as a whole.

Potential distortions to existing practices and livelihoods

Domestic markets in developing countries tend to be more sensitive to prices than export markets, due to lower incomes of local populations, and if eco-labelling results in, or requires price increases to make it justifiable to producers, increased sales to exports markets may reduce availability of fish for local consumption. Of course, whether this is really relevant to the food security of the poor in developing countries depends on the primary species being consumed in developing countries by the food insecure, and the species considered for certification and whom it is being consumed by (i.e. the poor or the urban middle-class). A shift in emphasis towards export markets could also potentially have significant impacts on who benefits from trade (Kurien, 2000). Generally women comprise a significant proportion of post-harvest employment in the fisheries sector, especially where processing and marketing is small-scale and local in nature. Increased sales to export markets would be likely to have significant gender impacts, with larger-scale buyers (probably men) being able to out-compete small-scale female buyers at landing sites, due to the higher prices being paid for certified products. If certification did have the predicted price effects in developed country markets, then it would be likely to reward middlemen and the post-harvest chain of custody, but not necessarily the fisher (Kurien, 2000; SEAFDEC, 2001).

Price differentials for certified product may actually increase pressure on particular stocks and diminish sustainability. On the one hand, higher prices for catches from a certified fishery could increase attempts by fishermen to increase catches in that fishery. On the other hand, successful effort limitation in a certified fishery may displace activity to another fishery, with

associated negative impacts on that fishery. Ensuring increased sustainability of resource exploitation is, in many cases, likely to require limiting access, often to those vulnerable and poor groups who most rely on fisheries for subsistence and income-generating activities, i.e. a short-term trade-off in livelihoods and resource exploitation in favour of anticipated longer-term benefits.

However, in considering all of the above, it is important to stress that, as yet, there is little concrete evidence that eco-labelled product does in fact generate sustained price increases (even though short-term prices increases might be realized).

Equity and feasibility

The criteria and indicators set for certification should be equally achievable by both developed and developing country fisheries. In addition to differences between developed country single-species fisheries and multi-species tropical fisheries which may make certification inequitable because it is less feasible in many developing countries, another important issue is that it may be harder for smaller enterprises in developing countries, exploiting lower value fisheries, to participate in certification, especially given the relatively high costs. This problem has two components. First, smaller-scale fisheries are less likely to find that any benefits from certification outweigh the costs. Second, and in addition, certification costs must be paid in advance, while benefits will not accrue until after product is caught and marketed. Small-scale producers in developing countries are less likely to be able to 'front-up' the money required for certification due to difficulties in accessing credit, and lower overall earnings/profits. Raising funds from government, and from stakeholders in developing countries is likely, therefore, to be harder than in developed countries.

The potential for certification may not be equitable or feasible if local fisheries administrations lack the capacity to affect management improvements and comply with certification requirements. Developing country

managers are less likely to clear the main hurdles of certification than their counterparts in developed countries. Such concerns appear to be justified based on the experience of the Forestry Stewardship Council, but may be less of an issue with Fair Trade, than with environmental schemes such as the MSC (Mathew, 2002).

Perceived barriers to trade

It seems most unlikely that developed countries will, or indeed would be able under WTO rules, to ban any imports of a product unless it was certified under a particular scheme. Barriers to trade are, therefore, more likely to be presented when individual processors/retailers in developed country markets specify that they will only buy certified product within a certain period. In assessing possible barriers to trade it is, therefore, important to consider market segmentation in developed countries, and who is supplying product into different markets, and from where.

The MRAG/IIED (2000) study, for example, considers that given that the main exports from developing countries are tuna and shrimp, the impacts of certification may be minimal, because trade effects will be moderated by the limited degree of substitution towards competing products from certified fisheries in the developed world, and because high seas migrations of the most valuable tuna species make them a difficult target for artisanal fishermen. Analysis of trade flows for the USA and Europe shows how infrequently imports from developing countries (and particularly low income developing countries in the tropics) have close substitutes from developed countries where certification is perhaps more likely to occur.

The extent to which certification and labelling will be, or could be, used as a barrier to trade ultimately depends on the demand for certified/branded product in different markets. While there seems to be a general consensus that the most promising markets will be those in Northern Europe and North America, where consumers are relatively affluent, sensitized to

environmental/social issues and used to this form of product differentiation (Deere, 1999; MacMullen, 1998), there is actually no clear evidence on how big the environmental and social markets are likely to become. An ongoing study (Poseidon/NACA/STEAM)³ has recently found that generally supermarkets that vary in their support for certification and branding schemes, believe that the majority of customers are more interested in other factors such as value for money, speed at check-outs, and the quality of products. The study also found little/no support from those interviewed in the retail sector for specific social branding, as retailers are concerned about large numbers of brands confusing consumers and adding costs. However, there is some support for linking social/ethical issues into other environmental certification schemes (although the willingness of the schemes to expand into social issues remains another question) and traceability requirements.

The ongoing Poseidon/NACA/STEAM study also found that interest in environmental and social certification/branding varies significantly between the retail and catering sector, and between countries. There is no strong evidence in the catering sector in the UK, for example, of requirements to satisfy environmental or social/ethical issues in relation to sales of shrimp. While in the Benelux countries, labels are very exceptional for fish products.

These findings support those reported by Nautilus/IIED (2003). A recent survey referred to in the Nautilus/IIED report concluded that “in relation to decisions about food and shopping, consumers were unashamedly selfish. Most decisions are based on self-benefit, e.g. value for money, taste and convenience, rather than being driven by altruistic motivations”.⁴ There is also a widely recognized gap between what consumers say they do on ethical issues and how they actually

act – a Co-operative Bank survey found that of the 80% of consumers who claim to shop or invest ethically, only 30% ‘practice what they preach’.⁵

Both the Nautilus/IIED report and the ongoing Poseidon/NACA/STEAM study also have clear findings that for major retailers to be concerned with aspects of social equity and ethical trade, product volumes in a particular commodity have to be large enough to ensure a coherent market image.

Conclusions and Recommendations

A number of studies in recent years have considered the potential impacts of such certification, but all have been theoretical in nature, and none have yet considered in any empirical form the actual impacts through case study fieldwork, perhaps understandably as certification is a relatively new concept and is still building momentum. There are as yet no studies which attempt to quantify the actual market size in a particular country for environmentally or socially certified fisheries products, either as a total or broken down by species or market segment (e.g. retail or catering), and as pertaining to different customer types. Without such knowledge, and detailed economic analysis of substitution effects and price elasticities, it is almost impossible to say what the actual impacts on particular developing country producers are likely to be. Furthermore, most studies tend to generalize the potential impacts without due recognition of the complex and varied marketing arrangements present in the fisheries sector.

These marketing arrangements mean that such generalizations are actually rather meaningless in terms of assessing the potential impacts on producers in particular areas of particular countries, because the distributional impacts of certification are likely to depend greatly on the

³EC-PREP Project (EP/R03/014) funded by DFID and entitled: The International Seafood Trade: Supporting Sustainable Livelihoods Among Poor Aquatic Resource Users in Asia.

⁴IGD (2003) Consumer Attitudes to 'Eat the View', report for the Countryside Agency. Watford: IGD.

⁵Key Note (2002) The Green and Ethical Consumer, Key Note Ltd.

species concerned and the exact form and requirements of the supply chain, as well as on different demand factors in different developed country markets.

What appears possible is that market demand by both consumers and retailers for environmentally certified product, and especially of socially certified product, may be limited at the present time, and that the scale of potential impacts on developing country producers may, therefore, be overstated. There is a tendency from surveys of consumer attitudes to overstate support for such schemes and theoretical 'willingness to pay', compared to actual purchasing behaviour. High profile campaigns by environmentally and socially concerned NGOs may not necessarily reflect consumer attitudes, especially if price premiums are to be required for certified product.

However, it is of course very difficult to say how market demand might evolve in the future, and it is certainly the case that in some countries such niche markets for certified products are growing. As/if momentum builds for certification both as a result of increased demand, and increased interest by producers, a greater range of certified products would inevitably mean that impacts on developing country producers would become more likely, and more widespread.

Caution is expressed about making policy recommendations in the absence of any empirical research to support the view that there is an actual impact on developing countries as yet, and in what form such impacts are manifested, for example, on whom, where, for which main products, etc. The first, and overriding policy recommendation is, therefore, to support detailed empirical studies to

explore for both (i) environmental certification, and (ii) social certification, the actual market demand for certified products under different schemes, and their relative positive and negative impacts.

In the meantime, and assuming that impacts on developing country producers do become widespread, other potential policy recommendations might include:

- support for strengthening fisheries management in developing countries so as to increase the likelihood of successful certification
- investigation into ways of bringing down the costs of certification
- donor support to cover certification costs in particular fisheries, or at least to provide credit to small-scale producers who may otherwise not have sufficient access to capital
- advocacy to increase the relevance of existing schemes to developing country producers, perhaps by allowing for greater flexibility, by more work on community certification, and/or by support for the development of national certification standards that are harmonized within a wider international framework
- putting in place appropriate mitigating measures to deal with the particular distributional impacts of certification in developing countries, i.e. in terms of gender impacts and the impacts on producers of different species, in different locations, and accessing different supply chains
- more support for social rather than environmental certification, which initial thoughts suggest, may provide greater benefits to developing country producers.

Introduction

There is considerable debate as to what fishery subsidies actually are and what they include which complicates any discussion of their implications for markets, resources and livelihoods. Westlund (2003) defines fisheries subsidies as “government actions or inactions that are specific to the fisheries industry and that modify – by increasing or decreasing – the potential profits by the industry in the short-, medium- or long-term”.

The Agreement on Subsidies and Countervailing Measures (SCM) of 1994 constitutes the existing international legal regime governing subsidies in the fishery sector. The SCM agreement made it possible to question present subsidies in different WTO member countries but as yet there is no significant reduction in subsidies. The Doha Agenda is especially concerned with the use of subsidies in fisheries and members of the OECD account for at least 51% of all subsidies in the fishing sector. However, there is a dearth of information, particularly in any detail, of subsidies in developing countries, or indeed the implications of subsidies worldwide for developing countries.

Most of the literature on subsidies in fisheries focuses on marine capture fisheries rather than aquaculture. The bulk of subsidies are aimed at offshore fisheries which are largely commercial requiring mechanized ocean-going vessels rather than coastal or inshore fisheries that are largely artisanal in nature. Some of these subsidies have implications for developing country fisheries and livelihoods of poor people.

Transparency regarding subsidies is an issue: few members of the WTO have complied with their obligation to report subsidies. The political sensitivity of the subsidies issue is highlighted by the use of euphemisms for subsidy: for example, ‘government financial transfers’ and ‘economic incentives’.

There are also large inconsistencies in the data that are publicly available: the World Wide Fund for Nature (WWF) compares the data presented by the OECD and APEC studies with reports to the WTO. Only the EU displays any consistency between the two sources.

There has been more attention in the literature to the trade effects of subsidies rather than their effects on sustainability. However, the recent FAO expert consultations have begun to consider sustainability and livelihood impacts and an FAO case study of Senegalese fisheries has recently been commissioned.

Defining and Estimating the Extent of Subsidies

WWF (2001) estimates global subsidies to be in the region of US\$15 billion rather than the US\$12 billion implied by extrapolating the APEC study (2000) to cover all fisheries.

The WTO’s definition of subsidies in the SCM Agreement:

- specific financial transfers from state to the industry
- the state foregoing normally collectable revenue (e.g. tax free fuel)

- provision of services or investments to industry
- state purchases of industry outputs other than on commercial terms
- all forms of state income or price support.

Subsidies are categorized in relation to the rights of members to make complaints and take action (countervailing measures):

prohibited: export enhancing subsidies or subsidies giving preference to domestic producers or grants tied to the use of domestically produced goods

actionable: a subsidy that may be challenged on the basis of causing ‘adverse effects’ to the interests of other WTO members.

The WTO definition of subsidies in the context of the SCM is not broad enough; it does not take into account issues related to public goods and the management of open access resources. Milazzo (1998) adapted and added to the WTO categories of subsidies in a groundbreaking attempt to quantify the level of worldwide subsidies, focusing on subsidies with direct fiscal implications to governments. He treats as separate subsidies that reduce exploitation effort; divert producers from activities that promote over-exploitation to more benign economic endeavours; are intended to enhance the resource base and/or hasten the development of more environmentally benign harvesting technology.

Another challenge is the estimation of resource rents, which reflect the tendency to under-price natural resources; for example, unrecovered costs of fisheries management, the cost of collateral environmental damage and the value of the fish removed from the sea. But, while the legitimacy of user fees is not questioned with respect to other natural resources (e.g. forest, oil and gas reserves), user fees for use of marine resources are less frequently charged.

Subsidies Used in Developing Countries

Most discussions of subsidies largely focus on the fisheries sectors in developed or middle-income

countries. This is due both to their scale and the ease of access to data. Moreover, MRAG (2000) argues that subsidies on deep-water fleets (DWFs) from developed countries “are likely to have a much greater impact”. Moreover, the type of subsidy most frequently found in developing countries is in the form of bilateral or multilateral development projects. However, there are some fishing subsidies in developing countries, for example:

- port facilities owned and managed by the public sector
- subsidies lending and credit provision – in some cases to adopt new technology
- sales tax exemptions for inputs used by the fishing industry
- subsidized fishing inputs in the form of import tax exemptions
- the Indian case study outlines a comprehensive range of subsidies affecting the fishing sector, for example, subsidies on fuel, electricity, engines, lending and institutional support.

Studies on the Impact of Fisheries Subsidies

For a variety of reasons, quantitative modelling of subsidies is extremely difficult. OECD (2003) presents a simple qualitative economic model which considers the effects of giving government financial transfers (GFT) to fisheries and suggests that in the main where there is catch control or preferably effective fisheries management, government financial transfers have no effect on the total catch or the price of fish. Under effective fisheries management, there should be no long-term effect on trade or on the rest of the economy, but the profitability of the industry should rise. Under open access the total catch increases initially, but then falls in the long run if the stock is exploited beyond maximum sustainable yield. However, prices should rise if the catch falls, alongside the profitability of the industry. The important caveat regarding impacts is, therefore, to have a well-managed fishery. Thus the main concern regarding the effect of GFTs is in the context of open access fisheries.

Box 1: Bilateral fishing agreements – are they subsidies?

Exclusive fishing zones of coastal nations (EEZ) were extended in 1976 from the customary 12 miles to 200 miles. This encouraged the signing of bilateral fishing agreements between large fishing nations and developing countries, which did not have the capacity to exploit their deep-water fisheries. Bilateral fishing agreements are made between states, but constitute subsidies where the cost of the agreement is not passed on to the industry, and are inconsistent with WTO disciplines.

EU fishing access agreement with ACP countries

Bilateral fishing agreements are part of the trade and development agreements between the EU and ACP countries and account for one third of the EU fisheries budget, which was US\$400 million in the late 1990s. Through these agreements, fishing firms within the EU gain access to the ACP waters in return for the EU allowing preferential access of the foreign partner's fish products to EU markets. Spain is the dominant EU beneficiary (accounting for 82% of the EU member states value of fish production arising from EU/ACP bilateral trade agreements).

A key theme of the MRAG (2000) study is the interaction between context and subsidy. The study argues that bilateral access agreements (see Box 1) are the kind of subsidy that have most impact on developing country coastal and island states. The study summarizes both the negative and positive impacts from the access agreements organized under three headings: biomass and stock, economic and social (see Tables 4.1 and 4.2). These impacts are context-specific and vary considerably in magnitude and are difficult to isolate from other factors affecting the sector. The role played by good fisheries management systems was highlighted in the case studies. The study concludes that the most important factors affecting the impact of subsidies on resources and livelihoods in developing country coastal and island states are:

- the commitment of developing country governments to the control and regulation of fishing activities including capacity and fishing effort
- the commitment of developing country governments to introduce adequate measures to maximize rent extraction from subsidies
- the adequacy of legislation and its implementation with reference to illicit fishing within developing countries.

- the position of fisheries within national economic and social development priorities
- the implementation of adequate macro-economic policies to stimulate growth and investment in the fisheries sector.

For example, despite the heavy dependence of some Pacific Island states (e.g. Kiribati, Tuvalu) on access agreement fees, in most cases in this region there are no negative implications for fish stocks as the fisheries are well-managed, largely as a result of the terms in the access treaty with the USA.

International Debates and Action on Subsidies

There have been increasing demands for fisheries and particularly subsidies to be brought to the attention of the WTO and to subject fisheries subsidies more explicitly to the rigours of WTO trade law. The first submission to the WTO was in June 1999 by five nations followed by a second phase submission by eight members in April 2002. It is argued that fishing subsidies have trade effects greater than other sectors. The open access nature of many fishing grounds and the migration of fish between areas are highlighted and are argued to have implications beyond limitations on competitiveness, namely:

Table 4.1: Negative impacts

Biomass and stocks	Economic	Social
Excessive catches	Dumping on local markets	Reduction in employment in processing
Reduction of inshore stocks or specific species	Insufficient local landings for efficient operation of local processing	Reduction in local fishing incomes
Interruption of artisanal fishing	Domination of the local market by foreign fishers	Decrease in availability of fresh fish on local market
Reduction in certain species due to by-catch	Loss of value added in the country	Limited opportunities for employment on foreign vessels
	Damage to local vessels	

Source: Derived from MRAG (2000).

Table 4.2: Positive impacts

Economic	Social
Landings from DWF used by local processing industry	Employment in processing
Development of by-catch industry by artisanal fishing sector	By-catch offers source of protein for local community
Development of local processing with joint venture partners	Employment of fishing crew on joint venture vessels
Contribution to export earnings	Training and employment support
Local canning industry	Research

Source: Derived from MRAG (2000).

- countries that do not subsidize and that restrain total catch to maintain the resource lose the extra catch to countries that subsidize and do not restrain total catch
- competition from subsidized distant water fleets can make it economically unviable for developing countries to develop their own fisheries and, therefore, to realize the benefits of their own 200-mile zone of fishery jurisdiction
- subsidies can contribute to stock depletion, with negative economic, trade and environmental effects for other countries that have an interest in the stock.

WTO members opposed to the submissions on fisheries subsidies (particularly Japan) argue that the issue is better dealt with through improved fisheries management rather than simple elimination of subsidies; jurisdiction is under the United Nations Convention on the Law of the Sea rather than WTO.

Dumping: An Introduction

Dumping is the exporting of produce at less than production cost to the material detriment of competitor industries in the importing country. Though the concept is essentially simple, in practice it is anything but. Assessing true production cost is very difficult, relying on a range of assumptions and value judgements. Alternative simpler definitions of dumping have accordingly been devised: for example, ‘Selling in an export market at a price below that in the domestic market of the producer country’.

What is the response to dumping?

The recourse by the plaintiff – the injured importing country – is to impose import bans and/or compensating duties (duty orders) on the rogue products in legitimate protection of their own industry. These are called Anti-Dumping Measures (ADMs). Theoretically this is a technical issue that should be subject to economic logic and legal argument. In practice, it is highly political, can be arbitrary and is often raised at the behest of an industry finding itself unable to compete for harsh but fair economic reasons. Where countries are members of the WTO, an official WTO Anti-Dumping Agreement regulates the measures taken – where not, bilateral agreements are made.

How and Why does Dumping Occur?

Though the principles are straightforward, dumping is complex, with different causes, and a range of expressions. It can be motivated by over-production production (i.e. a distress move) or the desire to dominate a foreign market (i.e. predatory). It can be sporadic or persistent, and dumping can be attributed to individual companies, government action (e.g. export subsidies) or brought about by macro-economic factors such as exchange rate manipulation. It is, however, the effect of dumping actions rather than their cause that are proving critical and the key issues this raises are discussed below.

The role of subsidies. Obviously, commercial practitioners generally have no interest in producing at a loss – they do so in distress circumstances when they want to stay in an industry despite prices being below production cost (clearly temporarily in their view). The exception would be long-term strategies by corporations bent on acquiring market access and/or domination – unusual in the seafood sector. This means that government – who can sustain these costs, especially when faced with political embarrassments such as job losses – is the the key agent here. Anti-dumping then is inevitably entwined with the vexed issue of subsidies – direct or implicit making analysis politically contentious.

⁶This paper was prepared by NAP Fisheries.

Comparability. One assumption that underlies the level playing field philosophy is that countries can be compared directly. In fact, this is rarely the case, as the differing levels of fiscal, ethical, administrative or environmental burden placed on industries can radically influence their true competitiveness. This is in effect the reverse mirror image of the subsidies issue, i.e. these burdens act as negative subsidies. However, perhaps the most important single distorting factor is exchange rate manipulation.

Quantification. Penalties are based on a number – the ‘dumping margin’ which is used to justify the tariff imposed. It is a measure of the degree of unfairness, and as the points above imply, its calculation is fraught with complexity. Two methods are used. One is based upon the simpler practical definition mentioned above (i.e. a perverse differential between export and domestic prices): the dumping margin is then this differential (adjusted for transport and transaction costs, etc.) and expressed as a percentage of the export price. This does not work in managed (i.e. non-market economies) where the state is believed to set prices and so the concept of ‘fair value’ applies here. Then the dumping margin is the difference between export sale price and ‘fair value’, which equals estimated production cost plus a reasonable margin – termed the ‘constructed’ price.

Abuses. Just as dumping can be a strategic measure (to undermine competition in a long-term quest for market share) so can an anti-dumping response (protectionism for uncompetitive industries). Fighting this abuse has led to a new grouping – the ‘Friends of Anti-Dumping Negotiations’ of mostly non-OECD countries with a common characteristic of being highly competitive food producers. The principle claims of the ‘Friends’ are:

- (i) anti-dumping challenges can be mischievous, reflecting ulterior motives
- (ii) ADMs act as trade barriers negating negotiated tariff reductions
- (iii) ‘sunset reviews’ are used unfairly to extend penalties beyond the set term

- (iv) use of ADMs is on the increase, up by nearly 40% latterly.

The reality is then that anti-dumping campaigns are often undertaken in response to political pressure rather than to right genuine economic wrongs and have been described as “trouble-making diplomacy, stupid economics and unprincipled law”.

Dumping in the Fisheries Sector

Dumping of fish products tends to be blamed on developing countries by developed countries. The reason for this is simple – the main trade flows in the fisheries sector are from the developing world to the developed world. In 2001, 50% of global seafood exports emanated from developing countries whilst 74% of all imports went to OECD leaders, i.e. USA, EU and Japan. Control of the resource has increasingly moved to developing countries whilst the wealth to pay for expensive seafood resides in the west. Huge differentials in labour costs mean that processing is also migrating to the developing world, especially to countries where liberalizing economies have encouraged the build up of a competitive industrial infrastructure.

Clearly here *the critical issue is not dumping, but the anti-dumping measures imposed by the west* that present a serious threat to developing country seafood exporters. The USA has recently been the main protagonist in this regard, and so their anti-dumping procedures are perhaps the most relevant. These involve a three-tier arrangement.

- *Countervailing duties* are assessed against a specific country or countries
- *Anti-dumping duties* are targeted on specific offending *companies*
- *Section 201 Import Relief* is *global*, applying to all exporters of a given product.

Countervailing and anti-dumping duties are a matter for both the US International Trade Commission (ITC) and the US Department of

Commerce, dealt with through lengthy legal due process, and requiring evidence of material damage to a US industry. Section 201 Relief is more overtly political, applicable merely on the basis of evidence of damage to US industry (i.e. it equates to the 'safeguard' mechanism, recognized by the WTO, where an industry can legitimately but temporarily be protected against surging imports). Measures taken can include duties, quotas or conversely, subsidy to support the US industry. The US Government has a mechanism (the Byrd Amendment) that allows anti-dumping duty to be paid directly to the plaintiff companies (rather than the treasury) to which the WTO has rightly objected.

The Impact of Anti-dumping Campaigns on Developing Country Producers

In the past, fish processing in developing countries (e.g. tuna canning) was the focus of attention. Latterly, it has been aquaculture that has dominated fisheries ADM campaigns. Three high profile examples exemplify the current situation, all occurring within the last 5 years and all involving the USA (also in some cases, the EU). The three cases and the lessons learned from these and other cases are summarized below.

- Salmon: USA and EU/Chile – Chile as the low-cost producer came to dominate the US market, and subsequently challenged EU producers in their home market (though high freight costs mitigated the latter threat).
- Catfish: USA/Vietnam – very cheap basa catfish (*Pangasius*) fillet from Vietnam gained significant US market share, to the disadvantage of domestic channel catfish farmers. This is the subject of a detailed case study outlined in Part 2.
- Shrimp: USA, South East Asia, South Asia, and South America – the success of farming in the low-cost leaders of the shrimp farming industry is claimed to have led to a price collapse that has undermined the US domestic shrimp fishery. This case is pending, but has already caused upheaval in global shrimp trade.

The principal effect of ADMs are, obviously, to reverse the changes brought about by trade-driven seafood production (be these originally positive or negative). Specific points highlighted by the three cases are:

- *The negative impacts upon the challenged industry cover participants at all levels* from the wealthy commercial investors down to the workforce or small farmers. There can be negative effects down to the poorest levels of society through ancillary activities such as shrimp post-larvae collection. More generally there is a loss of foreign exchange for the countries economies.
- *It is the more efficient developing countries that are being targeted*, as naturally these are the producers who threaten their northern competitors most. The result is a setback in the development of a strong competitive export-orientated agribusiness sector within these emerging countries.
- ADMs targeted on these countries and reducing their competitiveness *allow less competitive countries to prosper, especially when there is a general raising of prices* (but only in the challenger country – prices elsewhere may fall). This is likely to be a purely temporary boost for the less competitive countries.
- *Developing country producers are being forced to develop alternative markets*. Whilst this is challenging now, the result will be a strengthened industry with diversified markets (i.e. bad and good).
- *ADMs should counter a key criticism levelled at the international seafood trade, i.e. that it denies developing countries fish for domestic consumption*. This seems unlikely, though, as these industries exist to export and will simply contract if export avenues are closed or will divert exports to other markets.
- *Aquaculture is often accused of causing environmental and social damage* (e.g. mangrove destruction and land grabs that displace the poor). Are ADMs likely to reverse any of these adverse changes? Probably not, as these are long-term effects and dumping challenges seem to be essentially temporary.

- *Trade distortion will surely follow.* Product from the penalized states will inevitably mutate into that from the non-penalized, assisted by the sort of cross-border alchemy that benefits crime.

In conclusion, it seems that the impact of ADMs are mostly negative, i.e. the developing country loses. There are potential gainers though – possibly some in the poorest developing countries, but their gains are likely to be transitory.

Implications for Developed Western Consumer Countries

Although developed (OECD) countries are not the main focus of this study, the impact of ADMs upon them is instructive. The critical question is has the anti-dumping legislation achieved the desired effect for the OECD producer? The answer is almost certainly not, for the following reasons.

- *In the long run, the more successful industries adapt and compete away the disadvantages imposed by ADMs, so nullifying their effects.* Thus, the repeated failure of these campaigns to bring about sustained structural change in favour of the protected industries – no significant US salmon or shrimp culture industry has developed – or is likely to do so in spite of a series of ADMs. US catfish prices have continued to slide in spite of the action

taken against Vietnam.

- *The impact in the OECD seafood markets is one of damaging upheaval.* Importers have difficulty deciding how to source without risking penal duties, which could be open-ended and retrospective. This can lead to a mix of short-term price rises in the challenger country matched by falls elsewhere in the OECD.
- *A major loser seems to be the consumer in the challenger country,* and in some cases the associated processing and food industries that are penalized by rising raw material costs.

Thus, there seem to be few real winners from these campaigns. The downside for developed and developing nations seems to occur across the board. It seems then that the Friends of Anti-Dumping negotiations have a good case when they claim that ADMs are often simply destructive, unwarranted barriers to trade.

None of this means that ADMs will not continue to be used as protectionism measures. Their overall impact will then be to reverse the fisheries trade liberalization measures (tariff reductions) first agreed during the Uruguay Round and possibly to be extended post-Cancun. In this connection the USA's 'Byrd Amendment', and its potential for exacerbating pressure for ADM challenges by financially rewarding claimants, seems particularly pernicious.

In October 2003, the Support unit for International Fisheries and Aquatic Research (SIFAR) organized a ‘Workshop and Exchange of Views on Fiscal Reforms for Fisheries: To Promote Growth, Poverty Eradication and Sustainable Management’. This took place in the context of a wider OECD-DAC initiative aimed at examining issues related to environmental fiscal reform (EFR) for sustainable development and poverty reduction. Taking ideas from the Workshop, this brief paper examines fiscal reforms in the context of sustainable international trade in fisheries. It concludes by noting that the achievement of sustainable and equitable international trade is dependent upon the existence of effective national (and regional) fisheries management systems.

The rationale underlying fisheries management, exploitation and development is beginning to change. Where once the focus was primarily on producing greater quantities of fish, the emphasis is now gradually moving, through concepts such as responsible fishing and sustainable management, towards wealth and revenue generation and their appropriate distribution. This change in focus presents new challenges to fisheries administrations. The wealth that aquatic resources are capable of generating means that the fisheries sector has the potential to contribute – sometimes very substantially – to growth and poverty reduction. Appropriate governance and fiscal arrangements for fisheries management using principles of economic efficiency can be instrumental in achieving this: first, by helping to

control the overall level of effort and second, by encouraging effort reallocation between fisheries.

The OECD noted that although scope exists for further trade liberalization, sustainable benefits can only accrue from this if efficient fisheries management systems are in place (OECD, 2003).⁸ A key conclusion of this study was that ‘policies should target market liberalization and improvements in fisheries management simultaneously, in a coherent and comprehensive manner’. Fiscal reforms are, therefore, relevant to international trade inasmuch as they may be expected to lead to the emergence of more effective management systems upon which sustainable trade can then be based. There is a critical need both to enhance awareness amongst decision-makers and the wider public that the concepts of *good management practice and responsible fisheries trade* must run hand in hand if economic and associated benefits are to accrue. In particular, policy choices by (fish exporting) developing countries based on short-term gains need to be carefully considered within a bleak context of long-term failure. Such failure, often associated with unmanaged open access fisheries, is wide-ranging and exemplified by environmental despoliation, diminishing economic returns, and increasing food and livelihood insecurity. Fiscal reforms are compelling governance instruments that can be used in tackling such outcomes through ensuring that a proportion of the potential (or actual) wealth from fisheries is captured and redeployed in addressing externalities.

⁷ This paper was prepared by Tim Bostock of Support unit for International Fisheries and Aquatic Research (SIFAR).

⁸ *Liberalizing Fisheries Markets: Scope and Effects*. OECD (2003).

Implementing fiscal reforms, however, requires a turn-around in political thinking. For years, policy-makers faced with dwindling fisheries have responded all too readily to calls from fishers for subsidies which have further contributed to over-capacity and over-exploitation. Fiscal reforms call for bold policy choices that reverse such transfers and begin putting the potential (or implicit) wealth of resources to alternative use for the benefit of society. A key challenge is to identify and implement appropriate institutional arrangements that will enable this to take place.

It is now accepted that promoting a better understanding of the key role of *resource rent*⁹ is a key element in successful fisheries management. Rents can either be the driving force leading to over-capacity and over-fishing, or they can be the basis for generating wealth and revenue. The apparently limited extent to which many policy-makers are aware of this, or recognize latent value of rents, is a critical factor affecting management performance. Continuing ignorance will keep fisheries policy reform as a low priority, and will ensure that the potential for fisheries to contribute to development and welfare objectives remains unrealized.

In considering the development and liberalization of trade, an important policy choice by governments is to derive estimates of existing and potential (assuming economically rational management) values of fisheries (rents) and consider this information in subsequent policy processes aimed at establishing effective management systems. A crucial element of this will be to define appropriate sharing of rent between resource owners (generally government) and exploiters. Again, this takes political courage, as a logical outcome might involve significant restructuring, including the institution of new management regimes that may be unpopular as they are likely to involve both winners and losers – approaches involving ‘short-term pain, long-

term gain’ are generally inconsistent with quick-fix/short-term political perspectives.

The allocation of permanent, enforceable and tradable fishing rights is now generally accepted as an enabling tool for sustainable fisheries management. Rights permit several key questions to be addressed including value and availability of resource rents (rent values are revealed through rights trading), ownership of the resource and the share of rent that owners may take, and who may exploit the resource.

Assuming new fiscal arrangements are instituted with appropriate management instruments in place that allow rent to be generated, several choices can then be made regarding the use of these rents. They can, for example, be used in pro-poor policies to create alternative employment opportunities, education and training programmes, or even continued ‘subsidies’ to particularly vulnerable groups.¹⁰ Rents can be used more directly to support trade through investments in alternative employment (e.g. processing, value added), trade promotion and market research. Alternatively, the choice can be made to ensure rents remain (dissipated) within the fisheries. Continued free and open access in small-scale fisheries can use the inherent wealth of the fishery to address welfare objectives.

Whatever the scenario, some form of management system will always be required as a prerequisite of sustainable trade, to ensure that the resources are not over-fished (costs approximate to revenues). These are important choices from a political-economy perspective, and require an understanding of the trade-offs between efficiency and equity/welfare.

The OECD study (2003) identifies six cases where the effects of market liberalization on trade and resources may be of particular concern. These are: aquaculture; shared stocks; high seas

⁹ TFor a useful key sheet briefing on *rents in fisheries* (and more generally on fiscal reforms see www.sifar.org/dfid_keysheets/index.htm)

¹⁰ Such ‘subsidies’ should better be thought of as *redistribution* of wealth generated from the fisheries.

fisheries not subject to management; fisheries under bilateral access agreements; under-exploited fisheries; and multi-species fisheries. The study recommends that policy-makers should pay particular attention to these cases as they represent situations where “market liberalization is most likely to elicit a supply response and hence where complementary targeted sector policies should be in place if welfare gains are to be optimized”. Although trade measures are increasingly being used in support of fisheries management and conservation purposes, at both national and/or international level (e.g. SPS, TBT, social, ethical and environmental labelling), the extent to which these are being implemented “in a coherent and comprehensive manner” is arguable. Although there is a body of opinion emerging that labelling is overstated as an issue, evidence from

existing impacts of other non-tariff barriers to trade shows that labelling has the potential to impact negatively on the livelihoods of the more vulnerable members in fisheries systems (see other papers for discussion on this). It is also increasingly clear that labelling should perhaps be better considered as an eventual outcome of efficient management systems (developed through improved national institutional capacity), rather than as an external driver of these.

Evidently, more work is needed to understand the links (and by implication, the inconsistencies) between international trading regimes and national governance and management systems aimed at sustainable exploitation, particularly in the six cases noted above.

*Synthesis of Country
Case Studies*

Part 2

As indicated in the Introduction, as part of this policy research project, case studies have been conducted in Bangladesh, Guinea, India, Uganda and Vietnam. The main objective was to demonstrate how fish trade liberalization and related issues impacted, or are likely to impact, on different stakeholder categories in the fisheries sectors of the countries concerned. As a result, the case studies followed a similar format, namely: an overview of the fisheries sector and trade policies, main stakeholders involved in the export supply chain, positive and negative impacts of trade liberalization, and recommendations.

Trade Issues Analysed

As shown in Table 7.1, each country case study dealt with issues related to fish trade liberalization elaborated in Part 1, namely sanitary and phytosanitary (SPS) measures, eco-labelling, subsidies and anti-dumping measures. The Uganda case study includes a summary of the country's position with regard to fiscal reform. This is in light of the Workshop held at FAO in October 2003, at which the author of the case study participated.

Before analysing the fisheries sectors and their stakeholders in detail, the history of the trade liberalization issues are briefly described in the context of the countries concerned.

SPS measures

During the 1990s, the EU imposed several bans on imports of shrimps and other fishery products on the ground that exports did not meet the stringent provisions of the EU's HACCP regulations.

In **Bangladesh**, the ban originated from (i) concerns as regards standards in areas related to health safeguards, quality control, infrastructure and hygiene in the processing units, and (ii) lack of trust in the efficiency of the controlling measures carried out by designated authorities in Bangladesh, in this particular case, the Department of Fisheries.

In **India**, the ban of August 1997 was precipitated on three primary counts: (i) serious deficiencies with regard to infrastructure and hygiene in fishery establishments and there is not enough guarantee of the efficiency of the controls by the competent authorities; (ii) potentially high risk for public health with regard to production and processing of fisheries products; and (iii) contamination by micro-organisms, which might constitute a human health hazard (Saqib, 2001).

From 1996 to 2000, the EU imposed three export bans of fish from **Uganda** for a number of reasons. In 1997, Spain and Italy rejected importation of fish originating from Uganda

Table 7.1: Overview of trade issues analysed

Bangladesh	Guinea	India	Uganda	Vietnam
Eco-labelling	Subsidies	Subsidies	SPS measures	Catfish, Anti-dumping case
SPS measures	Trade liberalization in general	SPS measures	Fiscal reforms	Shrimp export

because they detected Salmonella species in the imported products. In December 1997, when a EU Veterinary Inspection Mission was visiting Uganda, an outbreak of cholera was reported at some landing sites or beaches around Lake Victoria. The inspectors communicated this information to the EU and a partial ban (stopping the export of fresh-chilled fish products from Uganda) was imposed. Early in 1998, suspected incidences of fish poisoning were reported in Uganda on Lake Victoria. This matter was treated with serious concern and the Uganda government authorities imposed a temporary ban on fish exports and the decision was communicated to the EU. Despite Ugandan efforts to put in place a monitoring system to ensure that no poisoned fish ended up in the market, the EU decided to impose a ban on imports of fish originating from Lake Victoria.

Subsidies

Subsidies ought to be seen from two angles in this study, namely: (i) from the viewpoint of a developing country that tries to enhance its fisheries sector; and (ii) from the viewpoint of a developed country that is fishing in waters belonging to a developing country.

In **Guinea**, subsidies affecting the fisheries sector are twofold. First, subsidized European boats fish in Guinean waters within the framework of bilateral fishing agreements.¹¹ This is considered one of the causes of over-exploitation of fisheries resources since it increases the fish capture capacity beyond the point that is ecologically sustainable. According to a report by OECD (2000), annual subsidies to the European fisheries sector surpass US\$1.4 billion.

According to a case study by the World Wide Fund for Nature (WWF), about 46% of the profits of shrimp trawlers fishing in Guinean waters is due to compensation payments from the EU (i.e. Euro110,000 in compensations compared with a total value of catch of Euro743,000).

Second, since the 1980s, the Guinean Government has implemented projects in fishing communities that focus on the construction of infrastructure, and the supply of inputs and credit to modernize boats. It is estimated that total investments made between 1985 and 1995 in the industrial fisheries sector were of the order of 52 billion Guinean Francs (about US\$21.5 million), whilst the investments in the artisanal sector were of the order of 73 billion Francs (about US\$30 million).¹² This includes, for example, the introduction of engines, as a result of which about 44% of the fishing vessels are motorized nowadays. In particular, the Japanese Government provided assistance and funds. However, since 1997, the artisanal sector no longer obtains direct subsidies such as tax-free inputs (e.g. fuel, fishing gear).

Subsidies in **Indian** fisheries date back to the nineteenth century when the colonial government tried to encourage the production of salted fish through the provision of duty-free salt in designated yards (i.e. salting enclosures). After India's independence in 1947, the fisheries policy-makers embarked upon an ambitious programme of modernization and export promotion. Fisheries development became synonymous with addressing the foreign exchange needs of the country, and this was to be achieved through "increased trawler subsidies and improved port facilities" (Johnson, 2001) to target shrimp, which emerged from relative obscurity to become the *prima donna* of Indian fisheries by the late 1960s, a position it occupies to this day. Different kinds of subsidies – often linked with subsidized credit – were available for obtaining trawlers in different states until 1980. Subsidies to trawling, albeit in a much reduced form were revived in the 1990s to assist the sector when it was confronted with declining catches. One measure to address the problem has been to reduce the operational cost for small mechanized fishing vessels (most of the mechanized boats in India fall into the 'small' category), which involved exempting or reimbursing the Central Excise Duty on HSD oil.

¹¹ Guinea also has a bilateral fishing agreement with the People's Republic of China.

¹² At exchange rates of March 2004.

Since the 1970s, the government took the initiative to evolve a policy of promoting shrimp farming “in line with the objective of maximization of foreign exchange earnings”, which involved subsidy schemes for farm development, seed and feed supply and training of the farmers. Also, the Marine Products Export Development Authority (MPEDA) provided subsidies for establishing hatcheries and, later, for installing effluent treatment systems, PCR laboratories and disease diagnostic facilities. In addition, the World Bank supported a US\$41 million ‘Shrimp and Fish Culture Project’ during 1992–2001 in three coastal states of India, to assist private entrepreneurs and people from the weakest socio-economic sections to enter aquaculture.

The liberalization of the Indian economy since 1991 also led to a reduction of indirect subsidies for fisheries inputs such as petroleum products (HSD oil, kerosene, LPG), and electricity. In terms of direct subsidies in fisheries, there does not appear to have been any cuts during the reform period, due perhaps to the fact that the total outlay of fisheries in the national plans works out to a quarter of one percent and imposing fiscal discipline on such a small sector does not help the economy significantly. Subsidies in fisheries are also small when compared with other sectors like agriculture, prompting many people in the government itself to demand more subsidies for fisheries, not fewer. Even if there is a cut in the direct subsidies in the fisheries sector, the impact on many stakeholders may not be significant, except in the case of those providing some kind of social security.

The Marine Products Export Development Authority (MPEDA, 2002) provides a detailed assessment of the various direct subsidies in the Indian fisheries sector. It estimates the subsidies provided by various government agencies and departments in the country and concludes that the total subsidy component spent by MPEDA and other departments contingent on export was less

than Rs100 crore (US\$23.35 million) during the Ninth Five Year Plan. This can be compared with total exports of marine products during the Ninth Plan period, of Rs.26,842 crores (US\$6268.57 million). This illustrates that the subsidy contingent on export is negligible. However, even this subsidy spending was not solely for export fisheries but also for various other sub-sectors not contingent on exports. Even when the total spending by various central and state governments on fisheries is compared with the total annual value of production, the total spending in the fisheries sector works out at only 2% of the revenue from the sector.

USA-Vietnam catfish anti-dumping case

In June 2002, the International Trade Commission (ITC) under the US Department of Commerce received a petition from the Catfish Farmers Association and eight individual catfish processors in the USA demanding an anti-dumping investigation into the imports of certain Vietnamese frozen fish fillets. The petitioners alleged that the Vietnamese frozen fish fillets were sold in the USA at less than production value, and such imports were materially damaging the US domestic catfish industry. After its investigation in January 2003, the Department of Commerce ruled in favour of the US catfish industry, and levied a series of tariffs against Vietnam’s catfish exporters from 37% to 53%.

Eco-labelling

Eco-labelling has not been implemented in **Bangladesh**, as yet. During the study’s fieldwork, it was observed that unlike HACCP neither the exporters nor the farmers are aware of eco-labelling. When the issue was explained most thought that it was another barrier to export of their shrimp products. If environmentally sustainable shrimp production practice can be ensured it is believed that the country will benefit not only environmentally but also economically though such achievements are not without costs.

Table 8.1 provides an overview of the fisheries export sectors of the case study countries. The outline, which is self-explanatory, focuses only on the export species on which the case studies were based. Detailed analyses of the country's fisheries sectors are contained in the various case study reports.

Table 8.1: Overview of fisheries sectors

	Bangladesh	Guinea	India	Uganda	Vietnam
Fisheries sector	Shrimp are the main fisheries export product	Primarily marine fisheries: demersals (mainly industrial sector); pelagics (mainly artisanal sector); also crustaceans and molluscs	Shrimp are the <i>prima donna</i> of fisheries exports; culture shrimp increasingly important (mainly east coast), finfish species more important on west coast	Mainly Nile perch (60% of volume), some tilapia; mainly Lake Victoria	Catfish, Basa (mostly cage culture on river Mekong, but also some pond production) Tra (mostly ponds)
Technologies used – capture	Marine capture (large trawlers to traditional boats) and pond aquaculture	Industrial sector, 183 boats (56,000 tonnes); 3600 small/artisanal boats (66,000 tonnes); 44% of fishing vessels are motorized	280,000 fishing vessels; artisanal (65%); motorized (16%); mechanized (19%)	17,000 vessels in all water bodies, about 20% are motorized; mostly artisanal	Mostly small-to medium-scale producers

Table 8.1: cont.

	Bangladesh	Guinea	India	Uganda	Vietnam
Technologies used – processing and marketing	128 shrimp processing factories in Khulna, Bagerhat, and Chittagong, out of which 61 have export licence	Fish is exported to Europe in unprocessed form (i.e. no licensed factories) Drying, salting or smoking of fish exported within the region or to Asia	138 processing plants are approved for export to EU Following EU ban, processing factories have been upgraded to a high standard	11 processing factories; mostly near Lake Victoria, close to airport	5 processing and export factories in An Giang, which is main catfish producing province

This section reviews the principal stakeholders in the countries' export commodity chains and tries to assess what impact globalization and trade liberalization have on their respective wealth or poverty status. It is often stated that globalization opens up new opportunities for poor stakeholders such as small-scale producers or workers in the processing industries, in that new market opportunities are created as a result of increased demand and commodity flows. On the other hand, it is argued that globalization can lead to polarization in communities in that only a few are able to reap the benefits of new opportunities whilst the majority remain poor.

As shown in Table 9.1, the wealth categories identified by the five case studies follow similar patterns. It ought to be mentioned that the table is a summary of the five case studies and reflects differences in the collection of field data. As far as information on wealth categories is concerned, this draws on perceptions of local communities.

In particular, most types of worker and labourer belong to the poor or very poor. This includes aquaculture labourers, fishing crews (especially of non-motorized boats and small motorized vessels), hatchery workers, porters, and workers in fish processing factories.

Many female stakeholders are at the bottom end of the commodity chain as far as wealth status is concerned. Shrimp seed collectors in both Bangladesh and India are often female and belong to the poorest groups in society. Equally, although increased exports of fish and seafood have led to the creation of new jobs for girls and women in processing industries (see below), the majority of them are still considered poor. In Guinea, this

group includes processors and traders of traditionally smoked fish.

The middle-classes, whose living conditions are sometimes comparable with those of the moderate poor (e.g. Bangladesh), include the owners of small fishing vessels, small-scale aquaculture farmers, and operators of small businesses (e.g. local fish processors and traders in Uganda, or owners of rafts in Vietnam). Also, procurement staff of processing plants and auctioneers (e.g. India), as well as the crew of larger, mechanized boats belong to this group.

The rich and well-off include the owners of large-scale enterprises, such as fishing vessels, processing factories, ice plants, trading and export businesses.

It has been stated that the primary stakeholders are quite vulnerable to sudden shocks in the export commodity system. As a result, they can slip from one group to the next, and end up in poverty as a result of sudden shocks or trends. This may include natural disasters (e.g. cyclone), trends (e.g. declining fish stocks), or economic phenomena, such as fish export bans or protective measures by importing countries. In particular, the latter phenomena will be analysed in detail in the following sections.

The wealth ranking exercises indicate that fisheries exports are a dynamic sector creating jobs for new entrants into the labour market, including women whose options may be limited otherwise. At the same time, it is also apparent that the majority of the primary stakeholders belong to the poor who live near or below the poverty line.

Table 9.1: Wealth status of stakeholders involved in the fisheries sectors

	Bangladesh	Guinea	India	Uganda	Vietnam
Very poor	Fry collectors, workers in depots, hatcheries, processing factories	Maintenance workers, porters, handlers, fish smokers (female)	Aquaculture labourers, shrimp seed collectors, procurement and packaging assistants, basket weavers		
Poor	Ice van operator, fishing crew (small mechanized boats), owners of non-mechanized boats	Marine fishers/crew, mechanics, traders of smoked fish (female)	Fishing crews – non-motorized, or motorized, boat owners – non-motorized, small-scale aquaculturists, shrimp peelers, transport workers, processing plant workers – women, shore-seine labourers	Casual labourers, fishing crew, labourers who spread the nets	Aquaculture labourers (ponds and rafts), workers in fish processing factories (mostly female)
Middle-class/moderate poor	Some pond farmers, fishing crew (trawlers), procurement staff/agents of processing plants	Owners of small fishing vessels	Shore-seine owners, boat owners – motorized, fishing crew – mechanized, auctioneers, ice suppliers, engine mechanics, company agents, hatchery workers, feed mill workers	Local fish processors, local fish traders, operators of retail shops and kiosks, small-scale fishing unit owners targeting tilapia, non-motorized fishing unit owners targeting Nile perch	Owners of fish ponds and rafts

Table 9.1: cont.

	Bangladesh	Guinea	India	Uganda	Vietnam
Rich/well-off	Exporters, middlemen and traders, some pond farmers, owners of hatcheries, depots, processing plants, ice factories, trawlers, small mechanized boats	Traders of dried, salted fish, owners of large fishing vessels	Owners of processing factories, peeling sheds, mechanized boats, transport companies, hatcheries and feed mills, large-scale aquaculturists, commission agents, large-scale trader/financiers, exporters	Fishing unit owners (large/motorized), factory agents, factory owners	Owners and managers of processing companies, exporters

This section provides some details of how the fish export sector contributes to macro-economic parameters such as foreign exchange earnings and employment, and how households are affected by the changes in the system.

Foreign Exchange Earnings

There is no doubt that the fisheries export sector has been a major earner of foreign exchange in many countries. For example, fish and seafood exports have emerged as one of the important sources of foreign exchange earnings in **Bangladesh**. Among the non-traditional items fish and fish products rank first in terms of export earnings. Though the share of export earning from fisheries sector has declined from 6.91% in 1991 to 4.76% in 2002, the quantity of fish exported has almost doubled between 1992 (22,080 tonnes) and 2002 (41,482 tonnes). The total value of fisheries exports was of the order of US\$303 million in 2002 and US\$377 million in 2001.

Cato and Santos (2000) carried out an in-depth study of the negative impact of the EU ban on import of shrimp from Bangladesh, which remained effective for 5 months, between August and December 1997. The study estimated that fisheries products worth US\$65.1 million would have been exported to the EU had the ban not been in place. However, some of the export companies succeeded in diverting a large part of their intended shipments to the USA and Japan and, thereby, were able to cut down the losses. In spite of such efforts, the estimated net loss was equivalent to about US\$14.7 million. These were evidently short-term losses. The medium to long-term losses stemming from loss of the sector's momentum, market diversions, erosion in price

offered to exporters were, in all probability, much higher.

Guinea's exports of fisheries products account for approximately 3% of the total export revenues (mining being the major source of foreign exchange). Nevertheless, income from fishing makes an important contribution to the public finances, corresponding to an estimated 14.48 billion Guinean Francs in 2002 (i.e. about US\$6 million). This amount results from sources such as royalties fishing licences, compensation payments as part of bilateral fishing agreements, fines in response to fishing infringements, and direct taxes on large fishing companies.

India's seafood exports have grown by over twenty times in the four decades from 1961–62 to 1999–2000, as a result of the development of trawling, aquaculture, motorized fishing with 'disco' nets and, to a much lesser extent, 'deep-sea' fishing. The export of seafood from the country increased from 15,732 tonnes in 1961–62 to 343,041 tonnes in 1999–2000. In terms of value, exports have gone up from a mere Rs4 crore to Rs5117 crore or US\$1.19 billion during the period, and the unit value realization increased from Rs2/kg to Rs149/kg. In terms of overall exports from the country, seafood stands at tenth place, accounting for 2.7% of total export earnings in 2001. Among seafood exporting countries, Indian exports stood seventeenth in terms of quantity and twelfth in terms of value (Mathew, 2003). The contribution of exports to the GDP from fisheries in 1998–99 is about 24%, and to the national GDP is 0.3% (calculated from GOI, 2000: 1; MPEDA, 2001: 27). In terms of volume, exports constituted 5.75% of the total production and 11.2% of the marine production in

1998–99, although much support for the sector is targeted at export promotion.

Subsidies have undoubtedly played a role in developing the Indian fisheries industry over the last decade. In terms of direct subsidies, while there are changes at the policy level, they have not moved to the implementation stage, hence their impacts at the stakeholder level are difficult to assess. On the other hand, there have been many changes in terms of indirect subsidies, whose impacts are serious, but whose origins and scope remain murky.

Reduction in direct subsidies to fisheries is not considered to have much impact on many export stakeholders, because their contribution to reduce the cost of production is small and their reach is confined to a very small segment of the industry.

Indirect subsidies have been cut sizeably and this has a serious impact upon all categories of export stakeholders and their livelihood assets and strategies. Further reduction in indirect subsidies is expected to affect many enterprises and people, particularly the poor. It is assumed that the changes witnessed so far have been only the tip of the iceberg, and that the real changes will become more significant within the next few years.

Many food exports from India – most notably, shrimp – have been affected adversely by the selective application of sanitary and phytosanitary measures in the last decade. Shrimp exports faced rough weather over the issues of poor quality control, muddy smell and traces of antibiotics in farmed shrimp. The losses to the processing industry are quite high and affected the profitability of operations significantly.

Uganda's fisheries sector is one of the main economic sectors contributing to the country's general economic growth. Currently, fish is competing with coffee for the number one position in foreign exchange earnings. Nevertheless, fish is the largest foreign exchange earner amongst the non-traditional export commodities for Uganda.

Ugandan export earnings from fisheries have increased significantly over the past decade from US\$1.4 million in 1990 to almost US\$40 million in 1998 and to almost US\$90 million in 2002.

According to several studies, the Uganda fish export bans resulted in losses of over US\$30 million. For example, UNIDO (2003) estimates that the ban during April to August 1999 alone resulted in a loss of US\$36.9 million. It further estimated the loss to fishing communities in the form of reduced prices and less fishing activity at US\$4.25 million.

Fish exports from **Vietnam** have increased rapidly in recent years with export of aquatic products exceeding US\$2 billion in 2002, up by nearly 45% from 2000, driven largely by increases in aquaculture. The fish export value (including shrimp and other aquatic animals) for 2003 is estimated at US\$2.24 billion, an increase of 10.7% over 2002, whilst the target of the export industry is to reach an export value of US\$3 billion in 2005.

At the same time, the value of exports in 2003 experienced a strong decrease resulting from the anti-dumping policy that became effective in that year in the USA. Figure 10.1 shows monthly export volumes between 2002 and 2004, based on data from the Department of Trade in An Giang province. In early 2003, two private enterprises entered the export industry and the total export volume increased in the first quarter of 2003. However, from May to August 2003, exports dramatically decreased due to the impacts of the US anti-dumping tariff.

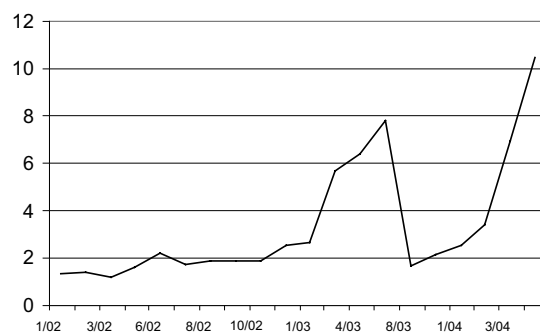


Figure 10.1 Monthly export volume (in thousand tonnes) of Tra and Basa Fish from An Giang Province

The anti-dumping tariff forced the catfish export companies in Vietnam to reduce their exports to the US market. However, as outlined Figure 10.1, exports were only reduced for about 6 months, since the export companies were able to change their marketing policies. First, they changed from fillet to different processed final products, which are not affected by the anti-dumping tariff. Second, fillet was exported to a third country before import to the US market. Third, the companies developed domestic consumption of tra and basa fish, for example, in the north of Vietnam. 'Fortunately', due to the chicken flu outbreak in late 2003 in Vietnam, tra and basa consumption was boosted in the country. Fourth, the companies found new international markets such as the EU, Japan and China.

The most immediate effect of the US anti-dumping decision was a decline in the farm-gate price of basa from VND14,000 to even lower than its production cost of around VND7000, leading to substantial financial losses for the sector as a whole. It is estimated that in An Giang province alone, the catfish raisers lost more than VND200 billion (US\$12 million). Taking into account that this province produces about half of the total production of catfish in Vietnam, it is estimated that the anti-dumping policy has caused an economic loss of US\$24 million to the catfish farming households in Vietnam.

The Impact on Employment

In **Bangladesh**, about 2 million people are employed in the fisheries sector on a full-time basis, which is 7% of the total employment of Bangladesh.

Following the introduction of the EU export ban, processing factories were obliged to upgrade their facilities. The larger and more efficient factories managed to overcome the difficulties and, according to some factory managers, the renovation process helped them to increase their exports to EU countries. However, despite the provision of interest free government loans (which were often not sufficient) many, mostly smaller,

plants could not withstand the shock and had to stop their operations. Seventy-eight factories did not survive, leading to jobs losses and fewer employment opportunities. As in most other similarly affected countries, the EU export ban and the required quality improvements and control measures in the factories (i.e. compliance with HACCP measures) led to a consolidation of the industry.

The fisheries sector in **Guinea** provides direct employment for about 80,000 people and about 800,000 (i.e. 10% of the population), depend on the artisanal fisheries sector in one way or another. As part of the fishing agreements, foreign fishing companies are obliged to hire a certain number of local crew, which is based on the size of the boats. Also, the agreements stipulate that a certain quantity of fish is supplied to the local market. Although the fish is mostly only of low quality, this practice creates jobs in post-harvest industries.

At the same time, studies have shown that in some locations artisanal fish processors and traders (mostly female) are no longer able to find raw material for their businesses. Fishermen have signed contracts with trading companies to sell exclusively to them otholite, a species this is relatively highly valued.

According to the livestock census of 1992 (cited in GOI, 2000), the total number of fishers in **India** is 6.7 million, of whom men numbered 2.4 million, women 2 million and children 2.3 million. Lacking disaggregated data from the 2001 census, it has not been possible to ascertain the current figures. Just over one third of full-time fishermen are located on India's east coast, and 70% of the marine fish production originates from the west coast (Vivekanandan, 2002). An important feature of the fisheries sector is the gender-based division of labour and the active role played by the women in the production and market-related activities in several states, particularly on the east coast. Shrimp aquaculture provides a livelihood to 1 million people, about a third of them employed directly in culture operations and the rest in ancillary activities (Mathew, 2003).

The only areas where women have played an important role in the export sector are in the pre-processing and processing operations. Both these activities have been adversely affected by the EU legislation and its aftermath, and many women found themselves without a job. For a number of women in Andhra Pradesh and Orissa, this meant losing one of their income sources, but for the girls from Kerala, this has meant the loss of their only livelihood. Anecdotal evidence indicates that the number of Kerala girls in processing factories is declining. Many women involved in peeling operations also came from single-headed households, and their income was generally the only source of subsistence for their families. It is said that many of the women now work as servant maids in urban households: the proximity of most fishing harbours to urban areas has thus come to their rescue, but at a considerable loss to their personal freedom and reduction in earnings.

The impact of the EU ban on the fishermen in Kerala was immediate in that beach prices of shrimp dropped dramatically to about 25% of the pre-ban price. The prices were slow to recover, as only those processors who were catering to the non-EU markets were buying. It took about a year for the situation to improve. The hardest hit by the ban was the trawling industry in Kerala as their operations are entirely focused on export species. The EU ban also had a long-term impact on the industry in that the prolonged period of low returns forced many trawlers to withdraw permanently.

The immediate impact of the ban on producers at the east coast (e.g. Andhra Pradesh and Orissa) was minimal.

As for the impact of the EU fish export ban in **Uganda**, the aforementioned UNIDO study (2003) estimated that out of over 100,000 people directly employed in the fisheries sector, 32,000 people lost their jobs as a result of the ban, while others earned less than one third of their average income. It is also estimated that over 300,000 people from families directly depending on fishing as a household activity were affected.

During the whole period of the ban (1997–2000), there were 11 operating fish factories in Uganda. The fish ban resulted in the closure of 3 of the 11 factories, while the remaining ones had to operate at less than 20% capacity. This also resulted in factories laying off 60% to 70% of their labour force. Other auxiliary industries such as packing, fishnet manufactures, the transport industry, the fuel industry and Uganda's economy in general were directly affected and all the people involved suffered the direct consequences of the EU fish export ban.

In **Vietnam**, there are a large number of diverse stakeholders involved in catfish farming in the Mekong Delta, including significant numbers of poor people. An Giang is the most important catfish farming province with 3178 catfish cages (structures to hold catfish on the flowing river) and several thousand ponds with a total water surface of 1560 ha. These cages and ponds provide employment for 11,058 households raising the catfish either by cage or pond, producing 136,800 tonnes of tra and basa fish in 2003 (111,599 tonnes in 2002). Dong Thap and other provinces in Mekong Delta also produced about half of the catfish output of An Giang province with about 5000 households involved.

Taking into account that each household hired two labourers to work in fish feeding, it is estimated that about 30,000 poor landless people were working in catfish farming. On average, each hired labourer working on fish cages and ponds gets about VND550,000–600,000 (US\$36–40) per month or less than US\$2 per day. In 2003, there were also 5300 workers with a salary income of less than US\$2 per day in five catfish export-processing factories based in An Giang province. The number of workers in fish processing in Dong Thap, Vinh Long and other parts of the Mekong Delta is about 3000. Poor women make up a particularly high proportion of workers in the processing factories (>70%). There are also several thousand people who indirectly provide services (in finance and credit organizations, fish feed and seed producers and traders, veterinary services, storing and transportation).

The anti-dumping case and the resulting measure brought by the USA led to the loss of employment among small-scale fish farm households, labourers and people working in processing plants, the majority of which were women. Poorer groups appear to have been most significantly affected. The study estimates that 8000 people lost their jobs as labourers in catfish farming and 10% or 500 workers lost their jobs from export-processing enterprises in An Giang province.

Cost of Compliance with International Standards

In addition to the impact on employment, fishery sectors confronted with export bans incurred additional costs related to the upgrading of their facilities. In particular, costs were incurred by processing factories trying to meet HACCP standards in order to obtain licences for exports to the EU.

According to a study by IUCN (2004), the frozen food exporters of **Bangladesh** spent about US\$2.2 million per annum and the government spends about US\$0.225 million per annum to maintain a HACCP monitoring programme. The total cost incurred by the industry in 1997–98 to upgrade export processing plants is estimated at US\$17.6 million.

In order to upgrade their facilities to the required standards, the Indian processing industry spent US\$25 million, according to the Seafood Exporters' Association of India. It is now necessary for each factory to have a potable water system, continuous power (with standby generators), effluent treatment plants, flake ice machines, chill rooms and laboratories. It is estimated that such upgrading involves an expenditure of Rs1–2 crores per unit as a fixed cost. Considering that banks are unwilling to extend loans to the seafood industry, the investment is primarily funded through private sources often at high interest rates.

As for recurring costs, it is estimated that for a medium-sized plant the processing cost has gone

up from Rs2/kg to Rs7/kg. The increased compliance cost comes from:

- the number of records to be maintained has risen to 160 and the number of record keepers shot up from 2 to 16
- the number of operators has risen from 8 to 16 because of additional machinery such as effluent treatment plants, chill room, flake ice machine, etc.
- since peeling has been made an in-house activity under the EU regulation, the cost of peeling has risen from Rs1/kg to Rs7/kg
- water consumption increased five fold and power consumption three fold
- better quality of staff, equipment and uniforms has added to the general overheads.

On average, an export processing firm is estimated to spend about Rs2 million per year to maintain a HACCP plant (Kumar and Kumar, 2003). The overall compliance cost for meeting the EU norms, as estimated by the exporters and confirmed by MPEDA, is between 15% and 40% of the FOB value.

In particular, small firms suffered most seriously as a result of the increased quality standards. They had to incur an additional cost of more than Rs10/kg on pre-export processing of fish products. These high investment and recurring costs have meant that many processing plants could simply not afford to upgrade to the new standards. About two-thirds of the plants in the country are expected to be able to upgrade to the new requirements, while the rest are expected to perish.

In **Uganda**, measures to comply with the international fish trade requirements are estimated to have increased the operating costs of fish processing plants by 50% (UNIDO, 2003). In addition, costs were incurred as a result of efforts to streamline the fish inspection services and the capacity of the Department of Fisheries as the 'Competent Authority' (e.g. training of inspectors, provision of equipment, and introduction of a fish inspection manual).

Box 2: Case study - tale of a woman processing worker in Khulna, Bangladesh

Amina is a woman processing worker in her thirties and married with a son. She used to live in a village in Dumuria upazilla of Khulna district. Her husband is a shrimp cultivation worker who works in a shrimp *gher* (farm). She used to work in a processing depot nearby her village. Processing depots were mostly situated near the villages so that women workers could easily come and work there. Now after the introduction of HACCP measures, the processing has shifted to urban factories. Since *Amina* was a processing worker and there was no suitable job for her in the shrimp cultivation, she too had to shift from her village to the town where the factories are situated. Now she is working in Sigma Sea Foods Ltd, and lives in a hostel of the factory with other workers. It was a bit difficult for her to make such arrangements since she had to leave her family behind. This change has created structural inconveniences and economic problems. First, she is now detached from her family and is deprived of a regular family life. Second, her cost of living has increased as she has to manage two families now - one on her own in the town and the other in the village. Moreover, she has to travel once or twice a month to her village home to meet her family, which involves a cost. She has to spend about 300 taka (US\$5) for each journey to her village. Third, there is a peak and off-peak season in the shrimp industry. When she used to live in the village she was involved in a number of activities like rearing cattle, poultry, homestead plantations, etc., which are mostly managed by women in the villages of Bangladesh. These brought some extra money during the off-peak season. But after the shift to the urban factory, there is no one to look after her livestock or plants. As a result, in the off-peak season she faces a financial crisis since she cannot earn any extra income. One positive impact of HACCP is that *Amina* can now concentrate more on her work, which was a bit difficult earlier due to her responsibility towards the family. Now she can work longer and thus earns more money. However, as mentioned earlier the increased living cost and loss of income from homestead activities due to the change in family structure cannot be made up by this extra income from slightly longer working hours.

Source: Fahmida A. Khatun (2004)

Social Implications

Prior to the EU ban in Bangladesh in 1997, the processing factories mostly collected headless shrimps from rural depots. The depot owners collected the shrimps from the local traders/middlemen and used rural people, especially women to de-head shrimps. This was a good source of income for many women living in the shrimp cultivating villages.

However, the introduction of HACCP regulations made it compulsory to process the shrimps in a highly sanitized factory environment, as a result of which shrimp processing has shifted from the rural depots to urban factories. In the wake of this shift, women workers had to move from their

home to the cities. The workers now work in the factories and live either in the factory hostels if they exist or in nearby rented houses, leaving their family behind in the villages.

This change represents a shock to the rural livelihood system. During the field visit to several factory-hostels and rental houses, discussions were held with the workers who previously worked in the village depots and now work in urban factories. As described by the women processing workers the impacts of being SPS compliant are as follows.

- **Impact on family.** The women who could maintain a family while working in nearby depots mentioned that some of them had to sacrifice their family life when they migrated

to the city for their job. This includes divorce or leaving children behind with other family members.

- **Household economy.** The shift of labour affected the household economy in the villages in that women who worked in the rural depots were able to also look after their livestock and crops. Women who left their homes for jobs in urban factories explained that they lost this extra income as a result of their move.
- **Increased living expense.** Migration has increased living expenses too as the workers now have to travel once or twice a month between their families in the village and to their workplace. Moreover, some workers who maintain families in the village mentioned that living costs have increased as they now have to maintain two households.

In **Guinea**, more competition and an increased number of conflicts between artisanal fishers and industrial vessels is one impact of fish trade liberalization. For example, the large boats infringe on the rights of the small-scale fishermen by entering into territories that have been traditionally reserved for the latter. A coastal patrol project involving several stakeholder groups has been created in Boffa Department in order to reduce the incursions. The project has produced promising results, also because the level of piracy has reduced.

In addition to conflicts over access to natural resources, encroaching larger vessels pose a safety risk for small-scale fishermen in that gear, boats and sometimes lives can be lost when collisions occur. At the same time, it has also been reported that artisanal fishermen do not always respect navigation rules, thereby putting themselves at risk.

A food security problem has been reported in so far as there is a lack of good quality fresh fish available at affordable prices on the Guinean market. As a result, the latest fisheries agreement of 2003 stipulates that every boat has to land a certain quantity of fresh fish depending on its size. In the past it was possible for boat owners to pay compensation instead of landing fish.

In **India**, the social benefits of the increased shrimp trade and exports include a better social acceptance of fisheries, particularly shrimp trade, increased affluence in the fishing villages (but skewed in terms of distribution), better housing, improved quality of life, rising literacy and improved contacts with the wider world. The largely informal nature of the export chain allowed a large number of poor people to find work in support activities.

The negative impacts of shrimp exports include increased social and economic inequality and unsustainable livelihoods. The gender balance in the shrimp export industry is tilted in favour of men and many activities are not accessible to the poor because of the need for high investment.

In **Uganda**, in regard to the impact of globalization on fish utilization and marketing systems, certain sections in the chain observed that the Nile perch export fishery has had positive impacts as well as negative ones for fish dependent communities and the country as a whole.

On the positive side, most communities generally agree that fish export trade increased the fishers' income through increased fish prices, compared with the period before liberalization. According to the communities, the export boom and the resultant increase in fish prices acted as an incentive to other communities as a result of which the number of people acquiring fishing licences increased. At the same time, it was reported that the income increase in the fishing communities often did not lead to local development or investments.

On the negative side, people in the marketing chain also believe that international fish trade led to an exposure of local and regional markets. A concern is that exports of Nile perch and even other fish species have left low income communities with no fish to eat, or only bones and other by-products. In the same light it has been indicated that the average increase of fish prices discriminates against the poor, resulting in a food security problem.

Ugandan fishing communities have seen four sudden drops in Nile perch prices since 1990, mostly related to the EU export bans and more recently due to fluctuations in world fish demand.

During the sudden price declines, the fishers simply abandoned fishing because at the prevailing Nile perch prices they did not earn sufficient income to cover their operating costs. Consequently, the factory agents experienced shortages in Nile perch supplies and also abandoned their activities. Overall, providers of auxiliary services such as fuel dealers, operators of restaurants, retail shops and kiosks and prostitutes experienced economic difficulties. Some fishers and fish traders, especially those operating on the eastern part of Lake Victoria, responded by smuggling fish to Kenya where better fish prices were being offered. Other fishers resorted to alternative activities such as smallholder farming, stone crushing and sand mining. It was also mentioned that the level of crime, particularly theft, was rampant during these periods.

Most of the workers in the **Vietnamese** fish processing factories are young females and between 18 and 25 years old. Though the income level of the factory workers is still quite low, it is much higher (i.e. US\$1–3) than that they were able to earn before through agricultural activities in their homeland rural areas. Most of the people hired as labourers for catfish farming households also enjoy better and more stable income through the work at the fish ponds and rafts. Since they were often landless farmers they had to go around the villages to look for any available job mainly during the periods of rice planting and harvesting. Nowadays, working for catfish raising households, they have fewer worries about their daily food and, in addition, can send small amounts of money to their families.

Environmental Implications

Even with its high profitability and great export potential the **Bangladeshi** shrimp export sector creates a number of problems and risks for the environment. Environmental impacts of aquaculture in terms of increased soil salinity,

reduction in agricultural production, decrease in cattle production and destruction of mangrove forests have been concerns for the inhabitants of the region as well as for the policy-makers. Shrimp cultivation also has a negative impact on biodiversity in that saline water has destroyed trees and grasses of the area.

The methods used for shrimp fry collection are also harmful for other fish species in that shrimp fries are collected from open waters and fries of other fish are destroyed during the collection. Though there is a government ban on shrimp fry collection from open waters it has never been strictly enforced. Other environmental damages caused through the capture of marine shrimps include the discarding of trash fish by trawlers, and pollution through oil discharge from boats.

It is reported that there has been a decline in the cultivation of agricultural crops and destruction of grazing land due to salinity which has generated a fodder crisis. Most of the farmers have sold off their cattle because of a lack of adequate fodder except for a few farmers who need cattle for agricultural activities. The decline in the number of cattle has decreased the supply of milk leaving a negative impact on the nutritional status of the people of this region.

Agricultural farmers have lost the opportunity to produce multiple crops on their lands. Even the production of the one crop they are allowed to cultivate has been greatly reduced because of the shrimp farmers' insistence that no chemical fertilizer or pesticide can be used on those lands.

As indicated above, eco-labelling has not been implemented in Bangladesh, as yet. As a result, it is only possible to discuss the potential benefits and costs on a theoretical basis. The potential benefits of eco-labelling are associated with environmental performance, corporate image, and economic and trade benefits. On the other hand, this has to be weighed against the costs of upgrading facilities, certification and training.

The cost of introducing a Seal of Quality in Bangladesh has been estimated at US\$0.5–2.0

million per annum, out of which operating costs would be of the order of US\$0.3–0.5 million. The potential costs for establishing a hatchery certification scheme are equivalent to US\$0.5 million per annum, excluding the costs for setting up laboratories (US\$0.265 million) (GOB, 2002).

In **Guinea**, it has been reported that there is a rapid decline of stocks of fish species that are internationally traded (Sidibé, 2003). The biomass of these species has declined by up to 50–70%, compared with the natural resource biomass. In particular, bars, bobos, sea breams and sharks are over-exploited.

The natural resource decline can also be observed through increased fishing efforts. For example, fishers who would have spent 24 hours at sea now have to leave for 5–6 days for the same yield. In addition, the size of fish has declined considerably.

The scarcity of the resource in the fishing zones traditionally reserved for artisanal fishermen, and which is a result of the over-fishing of demersal species, has led the fishers to ask for an extension of their fishing zone from 6 to 10 miles, which they obtained.

The **India** case study shows that the impact of direct subsidies in shrimp export chains has not been positive in terms of its impact upon the environment. Reducing direct subsidies to these areas could then be considered to be a positive outcome from an environmental perspective, but for three factors: (i) the quantum of subsidies in the sector has come down so low that their withdrawal may not amount to much; (ii) there is no evidence that the direct subsidies to fisheries are coming down; and (iii) the review of the current programmes and prospective plans shows that the essential features of the modernization framework continue to remain valid in policy-making.

On the other hand, the changes to indirect subsidies like HSD oil and kerosene may have

contributed to more prudent use of fossil fuels. The number of fishing days has come down, but its usefulness is doubtful when it is considered that the intensity of fishing effort increased. The reported shift in some fishing operations from shrimp to non-shrimp catches too will have a positive impact upon the shrimp stocks and to the food chain in general.

Mathew (2003) notes, “Even though fisheries subsidies are small, from an over-capacity and over-fishing point of view, their role is to be better recognized in India”. Unfortunately, this does not seem to have received much attention as yet. For instance, while the problem of over-fishing and the need for a departure from the open access concept in territorial waters is underscored in the policies (GOI, Draft Marine Policy, 2002; GOI, 2001), some of the measures suggested to address the problem, such as introduction of ‘new generation resource-specific vessels’ including trawlers and gillnetters-cum-longliners to tap sources in the offshore waters, ‘development, demonstration and popularization’ of fuel saving designs of fishing craft and gear, pelagic and mid-water trawling, new hull materials and so on (GOI, 2001a: 75–78), could potentially be a cure worse than the disease!

In **Uganda**, the case study participants were of the view that the high prices of Nile perch induced by fish exports had attracted many fishermen into Lake Victoria resulting in excessive fishing pressure. Consequently, the availability of larger-sized Nile perch has decreased compelling them to use undersized gears for purposes of survival.

In **Vietnam**, no specific impacts on the environment were reported as a result of the anti-dumping decision, except possibly short-term postponement of investments in pollution control measures at processing plants. Nevertheless, recently, the catfish industry has shown its concerns on the environmental consequences and improved its investment on waste treatment and sanitary equipment.

Policy Recommendations

Part 3

Introduction

A number of outline policy recommendations are presented below. These are based on the findings of the Trade Issues papers and Country Case Studies, and the final discussions held at the Workshop (FAO, 5– 6 July 2004).

The recommendations take cognisance of the key role that fisheries trade plays in the economies of many developing countries. The recommendations also recognize two interrelated areas of substantial weakness both at international and national levels. First, poor coherence between international and national/regional policies related to trade, which may lead to undesirable impacts especially on poor and vulnerable groups in developing countries. Second and more specifically, the absence or ineffectiveness of institutional arrangements for fisheries management in many developing countries, without which sustainable trade in fisheries products cannot be expected to develop.

The remainder of this document is divided into six sections. Each section begins with a short ‘issue narrative’, which is followed by a range of potential policy recommendations/options that may be expected to contribute towards addressing the respective issues described.

General Recommendations

Issue narrative. Trade measures are intended, evidently, to stimulate international trade and secure sustained benefits from it. However, there is a pressing requirement at both international and national levels for greater understanding and recognition of the poverty-related impacts of trade

measures within developing countries. If we continue to ignore this requirement, inconsistencies between trade-related policies are likely to worsen. Current weaknesses may be attributed to a combination of interrelated factors. These include poor North-South communications; weak in-country capacity to analyse (and appreciate) the multifaceted nature of impacts; inadequate awareness of impacts by those involved in international policy planning; and general institutional weaknesses, especially within developing countries, which are unable to respond to the needs of sustainable resource management.

Such factors have led governments to becoming reactive to trade measures rather than proactive and predictive, often leaving the private sector to identify appropriate solutions. They also jeopardize trade sustainability and the benefits that should accrue from it to the partners engaged.

Specific recommendations include the following:

- **Communications/participation.** Encourage more active developing country communication and participation in international trade negotiations (e.g. WTO and ACP-EU Economic Partnership Agreements). This may include an examination of the potential to introduce specific reforms within international institutions responsible for trade, to enable the more effective engagement of developing countries in trade-related processes. For example, improved transparency of both international agreements and the related negotiations is required, particularly for negotiators not belonging to major trade blocks.¹³ Moreover, effort should be made to enable developing country stakeholders more readily to access the

complex language of trade negotiations and to better understand the ramifications of trade agreements.

- **Capacity building.** Address wide-ranging capacity building needs including, for example, building skills in negotiation processes, technical areas related to compliance, identifying trade opportunities, information on institutional approaches and procedures, legal matters and so forth. Training and awareness building initiatives should be practically oriented, for example, seminars, workshops, guidelines and manuals that avoid jargon. Rigorous consultation with primary stakeholders is necessary in order that capacity building and information needs are responsive and accessible.
- **Awareness building.** In developed countries and international organizations involved in trade, raise awareness of national institutional weaknesses and potential solutions for addressing these. Clearly, this is an area of support which is closely linked to capacity building in developing countries. However, certain emphasis is also required in fostering this awareness amongst key international policy-makers
- **Institutional reforms related to better fisheries management.** Despite its complexity, effective fisheries management must be seen as the cornerstone for sustainable trade. At the national level, institutional reforms are required to foster more effective sector governance, particularly related to the establishment of sustainable fisheries management systems. Effective institutional structures will vary between countries and it is highly likely that any unique solution exists. In cases where fisheries management responsibility is devolved to communities (co-management arrangements), the question arises as to how international processes (such as WTO) can relate and link up with sometimes highly localized management institutions. Clearly, good linkages between central and local government are important.

While in some countries these appear to work (e.g. Uganda), in others they do not.

- **Supporting public-private partnerships (PPP).** PPP closely linked to policy, would facilitate efforts to accommodate trade measures. Appropriate institutional structures and participatory mechanisms will be required to enable such partnerships to function effectively. Aside from the productive sector and government, NGOs and export promotion agencies (for example) could be involved in PPP.

Sanitary and Phytosanitary Measures and Technical Barriers to Trade

Issue narrative. Many developing countries face a range of problems associated with SPS/TBT compliance. The case studies clearly demonstrate that SPS/TBT measures introduced (e.g. shrimp ban in Bangladesh, Nile perch ban from Uganda) represent major shocks for export fisheries sectors in developing countries. In the short-term this may lead to significant loss of foreign exchange earnings, bankruptcies and unemployment. However, in the medium- to long-term, the sectors appear to recover well, often with a smaller but better equipped processing sector, improved marketing strategy, and strengthened institutions (difficult lessons learned). The case studies clearly demonstrate the resilience of developing countries in the face of such measures. Nevertheless, despite the notably 'post-ban' recovery, there is little doubt that there are also long-term losers, perhaps through increased polarization, and particularly related to the poor and vulnerable (see later). Little information exists on the extent of this problem.

Specific recommendations include the following.

- Foster greater **recognition of the problems that developing countries face in complying with SPS/TBT standards**, alongside efforts to change institutional structures relating to

¹⁹ This aspect was comprehensively reported following the WTO Ministerial Meeting in Cancun in September 2003.

SPS/TBT standard setting. This should include greater involvement of developing countries in setting standards and implementation of related regulations (say through regional Codex Commissions; see also 'communications/participation' above).

- There is still a need for a greater understanding, at both international and national levels, of **the impact of various SPS/TBT requirements on developing countries**. This requires the recognition that the implementation of trade measures is a highly dynamic field with frequent changes taking place and often at short notice. Further empirical studies are needed to monitor impacts on poor and vulnerable groups, particularly women processors, shrimp seed collectors, small-scale fishers/farmers, and labourers.
- The conduct of **risk and exposure assessment** (and building national capacity to implement risk analysis as part of the regulatory decision-making process) is needed before the formulation of regulations. Based partly on the risk assessment analysis, the provision of longer periods in which to achieve compliance may be possible and beneficial. While this may not be possible with regard to immediate food safety issues, there are possibilities with regard to TBT and environmental issues. As indicated above, governments should be encouraged to become more proactive, thereby assisting the private sector in finding solutions.
- **Traceability** will become a major influence on food safety, yet the vast majority of stakeholders in the fishery sector are totally unaware of this impending measure. Without sufficient preparation, many countries are likely to be caught by surprise as was the case with the EU-introduced, SPS-related export bans in the 1990s. Practical information on what is involved and its potential to become a major issue is urgently required. An integrated programme for developing infrastructure is required in order to understand and address the requirements of the 'farm-to-fork' principle, which is very likely to become operational in 2005. At the same time, the issue of

'traceability' needs to be negotiated as part of WTO and other fora (e.g. ACP/EU Economic Partnership Agreements).

- Issues relating to **food safety standards** are developing very quickly and there is a need for improved information flows to the range of stakeholders in the food supply chain (producers, traders, exporters, government officials, international policy-makers as well as donors). This includes better access to scientific and technical information in order to foster coherence and ensure measures are sound and compliant with trading partners. Improved mechanisms are required for the provision of legal and technical assistance, including legal assistance to participate in dispute settlement.
- Greater **harmonization of SPS/TBT standards** is necessary at the international level in that currently there are a number of different standards used by different countries or trade blocks. As far as possible, the Codex Alimentarius should be used as the baseline for harmonized standards. Greater regional co-operation between developing countries on SPS issues would be useful.

Anti-dumping Measures

Issue narrative. Anti-dumping measures damage the interests of developing countries that have competitive export-orientated fishing, aquaculture and/or processing industries. They are often inequitable and counter-productive. Although the industries concerned may also involve those above the lowest socio-economic strata, there are notable impacts on some of the poorest groups. Their overall impact will be to reverse current and future fisheries trade liberalization measures.

Specific recommendations include the following.

- A **review of overall developing country assistance provided by the major international food/trade agencies** to identify whether they are already providing support for countering unfair ADMs. If so, evaluation of the effectiveness of that assistance is required. If not, then indicative proposals for technical

assistance units should be prepared. These should define: (i) overall remit; (ii) type of assistance provided (e.g. independent economic analysis, ombudsman, legal support, lobbying support to counter politically driven ADMs, relevant data base maintenance, etc.; (iii) institutional location; and (iv) budget/funding. There may be a potential FAO role in this regard.

- The **technical assistance units could also address other non-tariff barriers** such as SPS/TBT restrictions, and provide a source of information for developing countries during WTO negotiations. There may be scope for cover of a range of trade-related support in this context. For example, FAO might be willing to identify alternative markets for ADM-affected countries if requested by them; other competent international organizations, such as NACA, could be funded to provide balanced and objective advisory services to governments faced with an ADM.
- In view of the negative consequences of ADMs for exporting countries, and the fact that they apparently do not significantly improve the situation for domestic producers, consideration should be given to devising a lobbying approach to put this issue on the donor agenda and generate support for the concept. Also, NGOs may be well placed to play a role in this context, in that they are often able to react more quickly than other organizations.
- **Foster processes that enable close collaboration amongst the main stakeholders** in the export chain when faced by ADM, so that appropriate coping strategies can be devised without losing time. The Vietnam catfish case (and emerging shrimp case) clearly showed that the private sector alone would have had difficulties in responding adequately when faced by the sudden ADM.
- The **development of practical manuals and other relevant dissemination materials** explaining the various steps in countering ADMs may be considered. WTO members as well as non-members may be exposed to ADM (e.g. the current shrimp ADM introduced by

the USA). Whilst WTO members have access to arbitration panels and supposedly better information and advice, the non-members rely on bilateral trade agreements. As a result, the latter are likely to be more exposed and in need of additional assistance.

Fisheries Subsidies and Access Agreements

Issue narrative. Fisheries subsidies are firmly on the international agenda, and it is acknowledged that they have both positive and negative impacts which are very site and context specific. Whilst there appears to be a generally held view that subsidies lead to over-exploitation of fish stocks (and by implication negative social and economic impacts), this may not necessarily be the case. It is recognized that the removal of subsidies alone cannot resolve the problem of over-exploited fisheries. A crucial factor in this regard is the existence of an effective fisheries management system (which, in some cases, may be subsidized).

Fisheries access agreements are often associated with a range of subsidized elements (such as payment of the access fee by the DWFN Government). Such subsidies may create distortions in the market which can negatively impact on national efforts to increase economic benefits derived from trade.

Currently, a WTO negotiating group on rules for fishing subsidies is underway and has reached a critical new phase. A new conciliatory mood is apparent and although it is too soon to judge what the new rules will be, it is likely that the new fishing subsidies rules will be based on the 'traffic light' approach of the Agreement on Subsidies and Countervailing Measures (SCM), and priority attention will go to subsidies that increase fishing capacity.

Specific recommendations include the following.

- At the national and international levels, effort needs to be made **to reduce and eventually eliminate all capacity and effort-enhancing**

subsidies. We should not rely on the assumption that well-managed fisheries can counteract the impact of subsidies. Exceptions may only be considered if a capacity enhancing subsidy is targeted at an artisanal fishery which is clearly operating within the confines of an under-exploited and well-managed fishery.

- **‘Special and Differential Treatment’ for developing countries** is needed in the subsidies agreements. Generally high levels of poverty and poor infrastructure mean that the current systems in developing countries cannot stand up to the international requirements and the producers have little capacity to invest in upgrading the systems either. The lifting of barriers and quantitative restrictions in the new trade policies should be followed up by increasing the capacity and competitiveness of developing country producers to work in an international environment and standards regime.
- Developing countries should be allowed to use subsidies (e.g. in the form of credit on easy terms for investment in new equipment and processed systems required by the measures) to enhance their fisheries sector post-harvest capacities so that they can meet international trade requirements and standards.
- **Access agreements should focus on resource conservation and maximization of the economic benefits under effective management systems.** This should not only enable coastal developing states to benefit economically from sustainable and efficient exploitation, but would also permit local fisheries (if these exist or if their development is desirable) better access to resources and improve supply to the local population. Rents from fisheries agreements accruing to governments should be deployed in providing essential services in support of management (e.g. MCS, responsive research, capacity building) and in measures intended to address pro-poor policies (such as alternative income generation, welfare programmes and so forth) – see Chapter 6 on fiscal reforms. Subsidies by governments to DWFN fleets operating in

developing coastal states’ EEZs under bilateral access agreements should be abolished, as they result in production distortions and negative impacts on fisheries resources.

- There is a need for the international debate on subsidies to take factors into account (other than trade and environment) which have a bearing on the livelihoods of the stakeholders. There is a need for debate on this issue with various stakeholders in the industry and there is a need to introduce this issue into WTO/Doha Development Agenda negotiations.
- There is a need to understand the impact of reduction in indirect subsidies and social subsidies on various stakeholders, particularly the poor, and implement measures to alleviate the hardships caused due to this.
- Improve the knowledge base on the implications of subsidies, their removal and liberalization more generally on fisheries livelihoods and wealth generation potential in developing countries. In particular in relation to the livelihoods of the poor, it may be appropriate to replace the term ‘subsidies’, which generally has negative connotations, with a term that has more positive ones such as ‘wealth redistribution measures’. For example, measures used in this way to enhance the post-harvest sector’s capacity to meet trade liberalizing measures should perhaps be thought of as redistributing (potential) wealth from fisheries, i.e. investments by governments into the sector.

Ethical/Social/ECO Certification, Labelling and Guidelines

Issue narrative. There are no applied studies as yet which attempt to quantify the actual market size in particular countries for different fisheries products that do, or might, fall under the wide range of initiatives involving environmental or social certification, guidelines, or codes of conduct. Without such knowledge, and detailed economic analysis of substitution effects and price elasticities, it is almost impossible to say what the

actual impacts on particular developing country producers are likely to be.

As a consequence, there is a need for caution in making policy recommendations in the absence of any empirical research to support the view that there is an actual impact on developing countries as yet, and in what form such impacts are manifested (e.g. on whom, where, to what extent, and for which main products).

The first, and overriding policy recommendation is, therefore, to:

- support detailed empirical studies **to explore the actual trade flows and potential market demand for socially and environmentally certified products** under different initiatives, and the relative positive and negative impacts of: (i) environmental certification; (ii) social certification; and (iii) traceability requirements (as the impacts of all three are likely to be rather different).

However, in the meantime, and assuming that impacts on developing country producers do become widespread, other potential policy recommendations might include the following.

- **Draw on lessons from existing non-fisheries initiatives** (where possible) and growth in Corporate Social Responsibility (CSR) agenda.
- Investigation into ways of **bringing down the costs of certification and compliance** with different initiatives, and support to cover certification/compliance costs in particular fisheries, or at least to provide credit to small-scale producers who may otherwise have insufficient access to capital.
- **Advocacy** to increase the relevance of existing schemes to developing country producers, perhaps by allowing for greater flexibility, and more work on community certification.
- **Regional co-operation to work on harmonization of initiatives** (perhaps with Codex Alimentarius as an entry point), with appropriate consultation in developing countries.

- Putting in place appropriate **mitigating measures** to deal with the particular distributional impacts of certification in developing countries, i.e. in terms of gender impacts and the impacts on producers of different species, in different locations, and accessing different supply chains.

Poverty Reduction and Livelihoods Improvement (Reduction of Marginalization and Polarization)

Issue narrative. Although there is evidence that the international seafood trade has opened up opportunities for the poor in that new jobs are created, trade liberalization alone cannot ensure equity of opportunities and sustainability of livelihoods, particularly in a global context. As concluded by OECD (2003), **policies must target market liberalization and improvements in fisheries management simultaneously, in a coherent and comprehensive manner if benefits are to be realized.** Effective sector governance and management are prerequisites of sustainable trade, mitigating problems such as conflict between industrial and artisanal operators, and increasing competition for raw material in the processing sector. Such problems which occur frequently in unmanaged or poorly managed fisheries inevitably have greatest impact on the poor and vulnerable. Although improved sectoral management may itself require difficult short-term decisions (especially where capacity reduction is called for), long-term benefits to trading partners can only accrue if trade and fisheries management systems are developed responsibly, hand in hand.

Specific recommendations include the following.

- There is a need **for ensuring that the rights of the poor are better preserved in global trade agreements**, and to take up active, meaningful and participatory programmes to enhance their capacity to take advantage of the process. The Doha Development Agenda should provide

scope to include relevant statements in future agreements.

- Help in **establishing monitoring units to oversee and resolve conflicts** and tensions that may exist between stakeholder groups. Location specific approaches will be required, while local NGOs can play an important role in reducing conflict in some countries, in others traditional responsibility has been vested within local government and/or community-based organizations.
- Although fish exports have led to employment creation and increasing incomes in many fishing communities, the latter are often unable to build on these gains and make relevant long-term investments. Measures such as the promotion of savings and investment at household and community level, as well as strengthening of grass roots organizations and associations may be called for.

Stakeholders that lose out due to liberalized fish trade or the introduction of new technologies, require assistance in finding alternative employment (e.g. traditional fish processors). Also, social security needs to be improved for those that are vulnerable to job losses or have undergone profound social changes. This may involve strengthening of the fisheries associations at grass roots level. In particular, women's organizations require support, in that: (i) many traditional female operators such as processors and traders are losing out due to shifting supply patterns; and (ii) if new jobs are created for younger women in the export supply chain, this often requires significant social adaptation on their behalf such as moving from rural areas to urban centres where processing factories are located.

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Workshop Agenda

Secretariat: SIFAR

Workshop on Implications of Liberalization of Fish Trade for Developing Countries – outcomes of Project funded by DFID and GTZ

Resource persons/facilitators: Ulrich Kleih, Peter Greenhalgh: NR Economists, Natural Resources Institute; Graeme Macfadyen, Fisheries Economist, Poseidon Consulting Ltd (partial attendance only during the 2 days)

Chairman: David James, ex-FAO Fisheries Utilization and Marketing Service

Day 1: Monday 5 July

08:30	Registration in German Room C269
0900–0915	Opening address by Grimur Valdimarrson, Director, Fisheries Industries and Utilization Division, Fisheries Department, FAO (delivered by David James with apologies from Dr Valdimarsson) Adoption of agenda
0915–9.45	Introductions by participants; workshop briefing: Tim Bostock
9.45–10.15	Keynote address by Erhard Ruckes
10.15–10.30	Coffee break
10.30–10:50	Trade Issues Paper 1 – SANITARY AND PHYTOSANITARY MEASURES AND TECHNICAL BARRIERS TO TRADE: Peter Greenhalgh
10:50–11:10	'Cadmium in Swordfish' – case study of a non-tariff barrier between Seychelles and the EU: David James
11:10–11:30	Trade Issues Paper 2 – USE OF ETHICAL/SOCIAL/ECO CERTIFICATION, LABELLING AND GUIDELINES: Graeme Macfadyen
11:30–12:00	Case study 1 (livelihoods and poverty in relation to issues 1 and 2) with questions and clarifications: Keizire Blackie, Uganda
12:00–12:30	Case study 2 (livelihoods and poverty in relation to issues 1 and 2) with questions and clarifications: Dr Fahmida Akter Khatun, Bangladesh
12:30–14:00	LUNCH
14:00–15:00	Issues 1 and 2 discussion and initial synthesis of findings of issues papers and case studies
15:00–15:20	Trade Issues Paper 3 – THE IMPACT OF SUBSIDIES ON TRADE IN FISHERIES PRODUCTS: Peter Greenhalgh
15:20–15:40	Trade Issues Paper 4 – THE IMPACT OF DUMPING ON TRADE IN FISHERIES PRODUCTS: Ulrich Kleih
15.40–16:00	Tea break
16:00–16:30	Case study 3 (livelihoods and poverty in relation to issues 3 and 4) with questions and clarifications: Venkatesh Salagrama, India
16:30–17:00	Case study 4 (livelihoods and poverty in relation to issues 3 and 4) with questions and clarifications: Mike Phillips/Tung Thanh Nguyen, Vietnam

Day 1: Monday 5 July

17:00–17:20	Case study 5 (livelihoods and poverty in relation to issues 3 and 4) with questions and clarifications: Youssouf N'Dia, ¹⁴ Guinea
17.20–18:00	Issues 3 and 4 discussion and initial synthesis of findings of issues papers and case studies
18:00	Defining day 2 activities
19:00/19:30	Dinner in local restaurant

Day 2: 6 Tuesday July

09:00- 0930	Fish trade and food security - FIIU presentation on outcomes of Norway-funded project followed by questions/discussion:(Helga Josupeit
09:30-10:00	Presentation of draft compiled Synthesis Paper incorporating recommendations from above: Ulrich Kleih/Peter Greenhalgh
10:00-10:30	Coffee break
10:3 -12:30	Discussion in plenary on the four trade issues and focusing on the policy recommendations
12.30-14.00	LUNCH
13:30 -15:30	Continuation of discussion in plenary on the four trade issues and focusing on the policy recommendations
15.30-16.00	Tea break
16.00-17:30	Continuation of discussion in plenary on the four trade issues and focusing on the policy recommendations; drafting for incorporation into synthesis/final report for later circulation
17.30	Closure

Workshop Participants

States

Bangladesh

Dr Fahmida A Khatun
Research Fellow
Centre for Policy Dialogue (CPD)
House 40/C, Road 11
Dhanmondi
Dhaka 1209
Tel: (880 2) 8124770; 9141734; 9141703
extn. 123
Fax: (880 2) 813 0951
e-mail: fahmida@cpd-bangladesh.org

Guinea

Mr Youssouf N'Dia
11 BP 1610 ABIDJAN 11,
Abidjan,
Côte d'Ivoire
Tel.: (225) 07601265
e-mail: ndia_youssouf@yahoo.fr
(N.B. Unable to attend in person; papers presented
by Ulrich Kleih)

India

Mr Venkatesh Salagrama
Integrated Coastal Management
64-16-3A, Pratap Nagar
Kakinada
Andhra Pradesh 533 004
Tel: +91 (0)884 2364851
Fax: +91 (0) 884 2354932
e-mail: icm_kkd@satyam.net.in
rmy_sujata@sancharnet.in

¹⁴Delivered by Ulrich Kleih.

Vietnam

Mr Nguyen Thanh Tung
Deputy Director
GlobConsult Company
48 Vinh Phuc street
Hanoi
Tel: 84-4-7613411 / 84-0903412977
Fax: 84-4-7613314
e-mail: lienanh@fpt.vn

Uganda

Mr Keizire Boaz Blackie
Senior Fisheries Economist
Department of Fisheries Resources
Ministry of Agriculture, Animal Industry and Fisheries
PO Box 102
Entebbe
Tel: +256 77 40 22 34
e-mail: blackiesq@yahoo.com

International organizations

DFID, UK

Ms Tamsyn Barton,
Team Leader
Trade and Development
International Trade Department
Department for International Development
1 Palace St,
London SW1E 5HE
Tel: +44 (0) 20 7 023 0579
e-mail: t-barton@dfid.gov.uk

GTZ, Germany

Mr Berthold Schirm
Advisor
Policy Advice for Sustainable Fisheries
Deutsche Gesellschaft für Technische
Zusammenarbeit (GTZ) GmbH OE4501 Dag-
Hamarskjöld-Weg 1-5 Postfach 5180 65726
Eschborn
Tel: +49 (0)6196-79-1470
fax: +49 (0)6196-79-6103
email: Berthold.Schirm@gtz.de

NACA/Thailand

Michael J. Phillips
Network of Aquaculture Centres in Asia-Pacific
(NACA), Suraswadi Building,
Department of Fisheries,
Kasesart Campus, Jatujak,
Bangkok 10900
Tel: +66-2 561 1728 ext. 115.
e-mail: Michael.Phillips@enaca.org

FAO, Italy

Mr Tim Bostock
SIFAR
Tel: +39 06 57 05 59 59
e-mail: tim.bostock@fao.org

Mr George Everett
FIPP
Tel: +39 06 57 05 64 76
e-mail: george.everett@fao.org

Ms Helga Josupeit
FIIU
Tel: +39 06 57 05 63 13
e-mail: helga.josupeit@fao.org

Mr Audun Lem
FIIU
Tel: +39 06 57 05 26 92
e-mail: audun.lem@fao.org

Mr Jochen Nierentz
FIIU
Tel: +39 06 57 05 62 44
e-mail: jochen.nierentz@fao.org

Mr Fabio Pittaluga
SIFAR/SFLP
Tel: +39 06 57 05 60 27
e-mail: fabio.pittaluga@fao.org

Mr Ulf Wijkstrom
Chief FIPP
Tel: +39 06 57053156
e-mail: ulf.wijkstrom@fao.org

Natural Resources Institute, UK

Dr Peter Greenhalgh
Principal Economist
Enterprise, Trade and Finance Group
Natural Resources Institute
University of Greenwich at Medway
Central Avenue, Chatham Maritime
Kent ME4 4TB
Tel: +44 (0) 1634 88 35 96
Fax: +44 (0)1634 88 37 06
e-mail P.Greenhalgh@gre.ac.uk

Ulrich Kleih
Enterprise, Trade, and Finance Group
Natural Resources Institute
University of Greenwich at Medway
Central Avenue, Chatham Maritime
Kent ME4 4TB
Tel: +44 (0)1634 88 30 65
Fax: +44 (0)163488 37 06
e-mail: U.K.Kleih@greenwich.ac.uk

Other participants

David James (Chairman)
FIIU (retired)
Tel: 069963609
e-mail: d.james@edl.it

Erhard Ruckes
FIIU (retired)
Tel: 06.52364737
e-mail: ruckes@virgilio.it

The Seychelles was encouraged to develop a Swordfish industry in the mid-1990s with an EC grant. By 2002, a fleet of 12 small vessels and three exporters was established. Following a number of red alerts for cadmium in the EU, pressure from DG SANCO on the Seychelles Competent Authority resulted in a suspension of certain exports to Europe. This caused considerable economic distress as there are few alternative markets and resulted in much of the fleet switching to the unsustainable practice of finning shark.

The EC limit for cadmium had been set at 0.05 ppm by CL 466 in 2001, although when more analytical data became available a separate category of nominated species was opened with a limit of 0.1 ppm. Swordfish, however, remained at 0.05 ppm, presumably due to lack of data. It is instructive to compare these levels with those for other products: crustaceans and livers of cattle, pigs and sheep: 0.5 ppm; kidneys of these species and molluscs: 1 ppm. Clearly restriction of Swordfish imports cannot be claimed as a consumer protection measure. The task for the Seychelles was to work within responsible food safety parameters in order to orchestrate a change of the regulations for Swordfish. The alternative could have been a WTO complaint based on: (i) unequal treatment of exporting countries (as no other country had been pressured to ban exports); and (ii) the fact that neither the EC nor member states have conducted adequate risk and exposure assessments.

EC Regulations are set by the Standing Committee on the Food Chain, Animal Health and

the Environment (SC), on the advice of the Technical Advisory Committee (TAC). Enquiries indicated guarded support from some member states to increasing the levels for Swordfish but a lack of data appeared to be a constraint. The only proposal on the table was to include Swordfish in the 0.1 ppm group, which would not be high enough to solve the problem as indicative figures range from 0.01 ppm to 0.3 ppm.

At the instigation of the Seychelles Government the approach taken was to conduct a rapid survey of cadmium levels of Swordfish purchased in retail markets in EU member states. The results, which were to be drawn to the attention of the TAC and SC, would demonstrate actual levels of cadmium in the diet. In late March 2004, 20 fresh and frozen samples, identified as to origin, were purchased in six EU member states and analysed by an EC-certified laboratory. Although the sample size was not statistically significant, the results were nevertheless interesting and indicative. Contents varied from 0.012 ppm to 0.223 ppm, with no clustering as to origin or point of purchase. However, only 8 out of 20 met the present EC limit and only 12 out of 20 would meet a limit of 0.1 ppm.

Largely influenced by these results, together with significant analytical data from the Seychelles, the EC has now proposed raising the limit for Swordfish to 0.3 ppm. This will be discussed and voted on by the SC in October 2004.

¹⁵ This paper was prepared by David James.

Fisheries play a key role in the livelihoods of many millions of people in developing countries. [Policy Research - Implications of Liberalization of Fish Trade for Developing Countries](#) provides a synthesis of research undertaken on a number of issues and country case studies relating to fish trade liberalization and also presents a series of policy recommendations. The trade issues investigated include sanitary and phytosanitary measures, technical barriers to trade, subsidies, dumping, fiscal reforms, and the use of ethical, social, eco-labelling and certification. Country case studies were prepared for Bangladesh, Guinea, India, Uganda and Vietnam.

The aim of this study is to increase our knowledge and understanding of the relationship between the achievement of sustainable development outcomes and the existing provisions of international fisheries, particularly multilateral trade rules and bilateral agreements. The book should be of interest to researchers and development practitioners involved with fisheries-based communities.

