

# United Nations Environment Programme

## Division of Technology, Industry and Economics

### *Economics and Trade Branch*

A UNEP Update

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## Fisheries Subsidies and Sustainable Fisheries Management



**Fisheries subsidies: a critical issue moving forward**  
The dimensions of the crisis confronting the world's fisheries are stark and increasingly familiar: seventy-five per cent of global marine fisheries are currently either overexploited, fully exploited, significantly depleted or recovering from overexploitation (FAO, 2002). For many years, it has been widely recognized that this troubling state of affairs has serious environmental, economic, and social consequences, especially in developing countries. Only more recently, however, has a broad consensus emerged that government subsidies to the fisheries sector make a significant contribution to this unprecedented crisis. Estimated to be as high as US\$ 20 billion per year (GEO 3, UNEP, 2002), fisheries subsidies often distort trade while encouraging overcapacity in fishing fleets, unsustainable levels of fishing, and illegal, unreported and unregulated (IUU) fishing. A recent UNEP workshop and several forthcoming UNEP publications are helping focus and develop the issues at a time when the international dialogue on fisheries subsidies has entered an important new phase.

*"While the problem is complex, it is time to build on the growing momentum for reform by restructuring subsidy programmes to make them economically rational and to reduce incentives for overexploiting the world's increasingly depleted fisheries" – Klaus Töpfer*



In its fifth workshop dedicated to the issue, UNEP recently convened a two-day meeting on *Fisheries Subsidies and Sustainable Fisheries Management*<sup>1</sup>. The UNEP workshop offered a forum for over 100 individuals from 37 national governments, intergovernmental

and non-governmental organizations, regional fisheries management organizations and academic institutions. Building on formal presentations by 22 invited experts, the workshop focused on the need for more successful integration of fisheries subsidies policies with sustainable fisheries management. Workshop participants agreed that it is now necessary to move from analysis to action, and to take concrete steps towards practical outcomes, particularly with regard to negotiations on fisheries subsidies now underway at the WTO in accordance with the Doha Development Agenda. The main conclusions reached at the workshop are reflected in this information bulletin.

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**UNEP acts to promote reform of fisheries subsidies**  
Since 1997, UNEP has been one of the leading intergovernmental bodies promoting international efforts to understand and respond to the problem of harmful fisheries subsidies, working closely with governments, international organizations such as the FAO, WTO, and OECD, non-governmental organizations, as well as regional fisheries management organizations. UNEP has repeatedly brought together policy makers, experts, and stakeholders to discuss fishery policies, the effects of fisheries subsidies, and innovative approaches to policy reform.

**Basic concepts and tools for the sustainable management of fisheries**

The tools for sustainable fisheries management are broadly understood, but are yet to be fully and consistently applied. For example, many countries now say they adhere to the *International Code of Conduct for Responsible Fisheries* adopted in 1995, and have changed their fisheries management plans to include provisions such as banning destructive practices, and promoting the use of selective fishing gear and stock recovery plans (FAO, 2004). While international instruments provide an increasingly coherent framework for effective fisheries management, cooperation and consistency are still too often lacking among global fisheries agreements, regional fisheries management organizations, soft law instruments, and general

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<sup>1</sup> More information on UNEP's recent workshop, held in Geneva, 26-27 April 2004, can be obtained at <http://www.unep.ch/etb> or by contacting Anja von Moltke at +41 (22) 917 8137.

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international marine environmental treaties. Moreover, a significant gap remains between international commitments and their implementation, as budgetary constraints and insufficient human and institutional capacity are too frequently compounded by the lack of political will to undertake difficult policy reforms. Even at the national level, better integration among relevant government agencies is widely needed.

In part as a consequence of these shortcomings, the economic conditions of the fisheries sector are not yet conducive to sustainability. Open access continues to drive over-investment and excess effort in many fisheries. New market opportunities created by increasing trade and globalization have introduced incentives for overfishing, often in the presence of insufficient management, while inadequate valuation methods have aggravated the unsustainable economics of fisheries and raised ethical concerns. Against this background, inappropriate fisheries subsidies have contributed to distortions and overexploitation in many cases.

In theory, the allocation of property rights is a good management tool for sustainable use of resources. However, empirical evidence shows that the effective functioning of property rights depends on a coherent institutional context including cooperation between different regional regimes, transparency, efficient monitoring and sanctioning mechanisms. Moreover, the institution of property rights regimes must often take careful account of social and industrial conditions and policies at the local scale.

### The environmental impacts of subsidies

Among the key factors discussed at UNEP's recent workshop is that the environmental impact of fisheries subsidies can vary according to their type and the context in which they are applied. A UNEP-commissioned paper, presented to workshop participants proposes a "matrix approach" to analyse the impacts of different types of fisheries subsidies under various management and bioeconomic conditions<sup>2</sup>. The analysis takes an approach that ensures systematic coverage of the relevant combinations of subsidy types and the characteristics of fisheries and their management regimes.



Key findings from the paper and workshop discussions indicate that most subsidies have the potential to be harmful to fish stocks, particularly in the absence of effective management. Few if any fisheries are subject

to management that is sufficiently « effective » to ensure that certain fisheries subsidies will not harm fisheries resources. Moreover, certain fisheries subsidies could be harmful even under ideal management conditions. Subsidies that contribute directly to fishing capacity or effort, such as subsidies to capital cost or to operating costs, are among the most harmful. It is generally acknowledged that access agreements have potential to provide benefits, but that improperly designed agreements do contribute to overexploitation and to inequities in the distribution of rents from fisheries resources.

Properly designed fisheries subsidies can contribute to the achievement of sustainable fisheries, including through government programmes for

the reduction of fishing capacity, the improvement of fishing techniques, or the limitation of fishing effort. But effective safeguards need to be in place when designing decommissioning or license retirement programmes in order to avoid altered incentives to enter or exit the industry or to invest in modernization or purchase of new vessels. These safeguards could include mandatory physical scrapping of vessels, prohibition of introduction of new vessels, and commitment to time limits of the programme.

### Fisheries subsidies and developing countries

The issue of fisheries subsidies is of particular importance to developing countries where the fisheries sector is a vital source of food security, employment, and foreign exchange. Over 40 per cent of the world's fish production by biomass enters international trade (ODI, 2002), with 50 per cent of this output produced by developing countries (FAO, 2002). Modern technologies and practices are improving the quality of fish but reducing livelihood options for traditional workers.



Fish have also traditionally been the main source of animal protein of the poor in many countries, and changes in fish availability on domestic markets threaten food security for many poor people.

Given the importance of this sector to many developing countries, there is a need to develop appropriate management measures in close consultation with fishing communities, particularly in the artisanal context. According to FAO, artisanal fisheries are estimated to comprise 45 per cent of global fisheries and to employ 90 per cent of fishworkers worldwide. While poorly designed subsidies can raise the same dangers in developing as in developed countries, properly designed interventions by developing country governments to foster the sustainable development of small-scale fisheries and addressing their specific concerns may be legitimate and necessary. However, reformed fisheries subsidies policies will require improved definition of artisanal fishing, and better understanding of the associated environmental and social context.

### Artisanal fisheries comprise 45 per cent of global fisheries and employ 90 per cent of fish workers worldwide

Meanwhile, the overexploitation of some developing country fisheries has been compounded by the subsidization of distant water fleets from major fishing powers competing with local artisanal fisheries. Such subsidies can create significant competitive disadvantages for poorer countries seeking to develop their fisheries resources, whether for export or for internal consumption. Further work is needed to assist developing countries to assess the impact of fisheries subsidies and to develop sustainable policies.

“The level of fishing allowed under access agreements needs to be determined by sound science and the precautionary approach, rather than by the financial compensation. The terms of access agreements, including conditions of market access (both tariff and non-tariff), should be transparent to all stakeholders.” Chairs' Conclusions, UNEP, April 2004.

A full Chairs' Summary is available on-line at <http://www.unep.ch/etu/Fisheries%20Meeting/FinalChairsSummary.doc>.

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### UNEP case studies: experiences with subsidies and fisheries management

UNEP has supported country case studies since 1997 to better understand the environmental and related socio-economic impacts of fisheries subsidies and trade liberalization. The studies have been undertaken by policy research institutions familiar with local conditions in their respective countries, and have involved a broad range of stakeholders, including governmental and non-governmental participants. The involvement of governmental representatives in particular has helped ensure that the studies are founded on reliable national data, and realistic implementable policy recommendations.

To date, UNEP has undertaken 11 studies on the fisheries sector (three of which are ongoing) focusing on the impacts of trade liberalization on fisheries resources and the interaction between fisheries subsidies and management policies. The studies have confirmed the negative effects of poorly managed subsidies, and particularly their contribution to resource and environmental depletion, food insecurity, and unemployment. The studies also suggest that underdeveloped fisheries could be sustainably developed without application of subsidies, provided proper trade and management conditions are put in place. However, the capacity for sustainable fisheries management varies significantly among countries and needs to be addressed on a country-by-country basis.

Of critical importance is that all UNEP case studies clearly demonstrate the need for more coherent and transparent policy-making. Information about fisheries management, the application and impacts of subsidies, and the terms of access agreements needs to be improved. Given the concerns over shared fisheries resources, national experiences also confirm the importance of improved regional cooperation including through regional fisheries management organizations and the UNEP Regional Seas Programme.

The most recently released of UNEP's case studies, published on the eve of the recent fisheries workshop, are *Fisheries Subsidies and Marine Resource Management: Lessons from Bangladesh* and *Policy Implementation and Fisheries Resource Management: Lessons from Senegal*, in cooperation with the Centre for Policy Dialogue (CPD), Bangladesh and ENDA, Third World, respectively (see boxes)<sup>3</sup>.

### *The link between subsidies and the level of production in the Bangladesh fisheries sector*

The export of fishery products is a prominent economic activity in Bangladesh, amounting to 7 per cent of total exports. Marine capture currently accounts for about 20 per cent of the total fish production. Thus, it is difficult to establish any causal link between subsidies and the level of production. The study suggested that sustainable production in Bangladesh could further be expanded. This would call for the implementation of a proper management regime to ensure that the substantial potential within the sector is exploited on a sustainable basis and benefits a large segment of the population whose livelihoods are dependent on fisheries production. Given the sector's low level of development and lack of any effective guiding mechanism, the study recommends a number of specific measures, including:

- Improvement of management information systems for the fisheries sector in order to dynamically assess the state of the sector, and the costs and benefits resulting from adjustments in fishing capacity;
- Time-limited support for fisheries infrastructure (e.g. storage facilities etc.);
- Greater dissemination of improved fishing practices to minimize by-catch and discard;
- Strengthened monitoring, control and surveillance capacity in territorial waters, with a view to stopping illegal, unregulated and unreported fishing;
- Management of the fisheries sector through an integrated approach, taking into account the economic, environmental, and social factors affecting fisheries practices; and
- Procurement, processing and marketing support programmes for small and marginal fishermen.



### *Policy implementation and fisheries resource management in Senegal*

Fishing plays a vital role in the Senegalese economy and society by contributing to reducing unemployment and satisfying the protein needs of the population, as well as to reducing the balance of payments deficit. The fishing sector in Senegal is facing serious socio-economic disequilibria, which has led to overfishing and the use of harmful gear. This has resulted in the shortage of supplies to local markets and a reduction in protein intake for populations dependent on fish. Furthermore, there has been a shift in fishing effort from locally consumed species (pelagic) to export oriented ones (demersal), the latter having a higher added value.

The UNEP case study in Senegal formulated an action plan that would contribute to better preservation and promotion of the Senegalese piscatorial resources. This includes the regulation of resource access for small-scale fishing and the establishment of a "discussion forum" on fishing regulations, as well as greater involvement of local stakeholders in the implementation of a system of concessions for resource access rights.

Some of the specific recommendations were to:

- Introduce a ban on the sale and use of harmful gear (and to extend this regulation throughout the sub-region);
- Implement observer programmes for industrial fishing, ensuring these observers are autonomous and independent vis-à-vis the vessel;
- Extend the coastal area forbidden to trawlers as well as reduce quotas established in fish agreements; and
- Implement regulations for small-scale fishing to make sanctions against offenders more coercive.

(This study is also available in French).



<sup>3</sup> These studies are available on-line at: <http://www.unep.ch/etp/etp/index.htm>.

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### Reforming subsidies at the international level

At the World Summit on Sustainable Development in Johannesburg, 2002, the heads of state placed international action on fisheries subsidies among the top eight priorities needed to achieve sustainable fisheries. Specifically, world leaders called on all governments to:

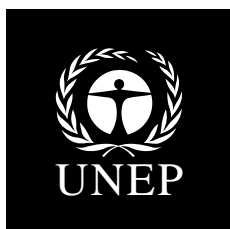
*“Eliminate subsidies that contribute to illegal, unreported and unregulated (IUU) fishing and to over-capacity, while completing the efforts undertaken at the World Trade Organization to clarify and improve its disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries.”<sup>4</sup>*

As reflected in this statement, addressing the relationship between fisheries subsidies and sustainable fisheries management has now been taken up as a matter of high priority in several leading international forums, with particular attention given to the negotiations currently underway at the World Trade Organization (WTO) aimed at clarifying and improving WTO rules on fisheries subsidies. In the WTO, the challenge lies in how to discipline the use of fisheries subsidies within the framework of WTO-rules. Participants of the UNEP workshop agreed that rules on fisheries subsidies should be clear and practically applicable, and that a comprehensive range of complementary solutions will be necessary, both at the international and national levels. Possible approaches, and potential elements of new rules were discussed.

“The problem is fundamentally interdisciplinary, and requires a holistic and integrated solution. The economic, social, and environmental aspects of the fisheries sector are inextricably linked, and solutions must be carried forward through improved cooperation and coordination among relevant governmental institutions at the national, regional, and international levels, while respecting the various spheres of competence and authority”. Chairs’ Conclusions, UNEP, April 2004.



A background paper commissioned by UNEP and written by Gareth Porter was presented to stimulate thought and discussion of several possible options for amending the existing WTO Agreement on Subsidies and Countervailing Measures to address the protection of fishery resources<sup>5</sup>. Among the issues developed by the paper and the ensuing discussion were the possible need for new institutional mechanisms to accompany improved WTO disciplines; the question of “burden of proof” in future WTO challenges to fisheries subsidies, and whether it should rest on the subsidizing party; the degree to which rules should focus on the design of a subsidy as opposed to the context or impacts of a subsidy; and the nature and role of “special and differential treatment” for developing countries. The workshop also emphasized that a successful outcome to the current WTO negotiations could contribute to a mutually supportive relationship between trade and environment generally, including between WTO rules and multilateral environmental agreements (MEAs).



*“It is no longer a question of whether but of how international cooperation to reform fisheries subsidies should move forward” – Klaus Töpfer, 2004*

### Next Steps

Participants in the recent workshop reaffirmed UNEP’s positive contribution to the ongoing dialogue with the aim of ensuring that subsidies do not detract from achieving sustainable fisheries. UNEP will continue to provide a platform for open discussion by convening governments, stakeholders and experts for interdisciplinary dialogue on fisheries subsidies and sustainable fisheries management. UNEP was further asked to continue its empirical and analytical work, assessing the impacts of subsidies and developing reform policies. Particular focus on artisanal fisheries, regional fisheries management organizations and questions of valuation was suggested.

In the light of widespread deficiencies in the implementation of international fisheries agreements - due in part to a lack of coordination among stakeholders - it was emphasized that international organizations and governments should give priority to capacity-building activities, in particular for developing countries. Regional dialogues could usefully be enhanced as part of this capacity-building effort.

### UNEP Publications on Fisheries

#### Fisheries and the Environment Series Publications:

- Vol. 1 Fisheries Subsidies and Overfishing: Towards a Structured Discussion, 2002
- Vol. 2 Fisheries Subsidies and Marine Resource Management: Lessons Learned from Studies in Argentina and Senegal, 2001
- Vol. 3 Fisheries Subsidies and Marine Resource Management: Lessons from Bangladesh, 2004
- Vol. 4 Policy Implementation and Marine Resource Management: Lessons from Senegal, 2004
- Vol. 4 Mise en œuvre de mesures de conservation et gestion durables des ressources halieutiques: le cas du Sénégal, 2004

#### Trade Liberalization and Fisheries:

- Environmental Impacts of Trade Liberalization and Policies for the Sustainable Management of Natural Resources: A Case Study on Bangladesh’s Shrimp Farming Industry, 1999
- Environmental Impacts of Trade Liberalization and Policies for the Sustainable Management of Natural Resources: A Case Study on Uganda’s Fishery Sector, 1999
- Integrated Assessment of Trade Liberalization and Trade-Related Policies: A Country Study on the Fisheries Sector in Senegal, 2002
- Integrated Assessment of Trade Liberalization and Trade-Related Policies - A country study on Argentina’s Fisheries Sector, 2002

#### On-going country projects:

- Implementation of Policy Response Packages to Promote Sustainable Management of the Argentine Fisheries Sector
- The Use of Economic Instruments for Sound Fisheries Management in Uganda: Instituting a Pollution Charge
- The Effects of Trade Liberalization and Related Measures in the Fisheries Sector in Mauritania

All publications are available on line at <http://www.unep.ch/etu/Fisheries%20Meeting/FishMeeting2004.htm>.

<sup>4</sup> Report of the World Summit on Sustainable Development.

<sup>5</sup> Porter, G. *Incorporating impacts on resources into disciplines on fisheries subsidies: issues and options*. This paper is available on-line at: <http://www.unep.ch/etu/Fisheries%20Meeting/FishMeeting2004.htm> and will be published by UNEP later this year.