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## Integrated Assessment of Trade Liberalization and Trade-Related Policies, UNEP Country Projects, Round II

### Introduction

UNEP has worked closely with national institutions in Argentina, China, Ecuador, Nigeria, Senegal and Tanzania to identify environmental, social and economic effects of trade liberalization, over a two year period.

UNEP's Country Projects, Round II, have been conducted in an overall policy context in which there is increasing recognition of the need for the environmental assessment of economic policies, in order to contribute to the design of new policy tools which support sustainable development.

The data collection and empirical research on which these projects were based, was carried out in the respective countries, by research institutes familiar with local conditions, economic and environmental needs and policy priorities.

The studies provided data and analysis, at the national level, on *actual* interactions and linkages between trade, environment and development policies and objectives.

The most recent six country projects, undertaken between 1999 and 2001 were: fisheries sector, Argentina; cotton sector, China; banana sector, Ecuador; cocoa and rubber sector, Nigeria; fisheries sector, Senegal; and forestry sector, Tanzania.

These projects were built on the experience gained from an earlier round of six UNEP projects undertaken between 1997 and 1999. Their results were published in UNEP's *Integrated Assessment of Trade and Trade-Related Policies* series, as six separate country studies and a synthesis report.

### An overview

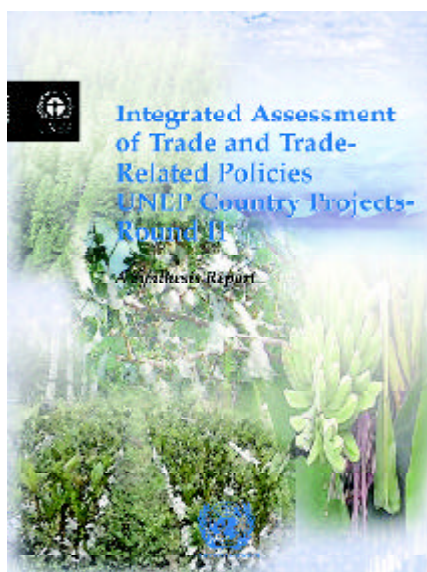
The results from the country projects showed that the relationship between trade liberalization and the environment was complex, often indirect, and mediated via effects on levels and patterns of production and consumption. Trade through changing patterns of production and consumption may have both beneficial and adverse effects for the environment. For example, enhancing trade can lead to the generation of financial resources which help overcome poverty and pay for environmental protection measures, but also to increased pollution and natural resource depletion. The assessments undertaken in these country projects were a first step towards defining and quantifying those different effects.

By deepening the appreciation and analysis of the nexus between trade, environment and economic development, these projects empower governments and other institutions to design and implement integrated policies which minimize associated environmental damage.

### Summary of conclusions

The projects underlined the importance of the assessments in understanding the static and dynamic interlinkages between different economic sectors, and the environment.

They suggested that an integrated package of policies underpinning economic development may enhance the contribution of policies directed towards the environmental and social aspects of sustainable development.



In addition, the country projects emphasized that coordination at the national level between government line ministries, the private sector, industry and non-governmental organizations should be actively encouraged. Through these studies, national experts were able to identify trade and environment interlinkages and design policies to address negative impacts resulting from trade.

### Key Findings from the Country Projects

#### Argentina - Fisheries Sector

The project examined the *ex post* impacts of trade liberalization policies on the fisheries sector. The methodology was based on qualitative data assessment combined with a cost-benefit analysis. The study provided one of the clearest examples of environmental, economic and social effects stemming from trade liberalization.

The country project linked overfishing and the depletion of fish stocks to subsidies provided to foreign fishing vessels and joint ventures. The study also reported a significant shift in the structure of the industry and its geographical location.

Over the period between 1997 and 1999, fish catches fell by 25 per cent and the decline of revenues over that period was of about 14 per cent. After intensive overfishing, a strong degradation of the fisheries biomass occurred, putting the main species harvested near biological collapse.



A cost benefit analysis (CBA) of the pattern of exploitation of one particularly valuable fish species showed that liberalization and expansion of the sector led to serious net negative economic impacts.

The CBA revealed that the degradation of the hake biomass, increased costs of regulation and control, subsidies and non diversification of catches, had led to economic losses which amounted to US\$ 500 million in the 1990s. Recommendations were developed to modify the sector's structure, reduce the fisheries fleet, implement a catch quota system, introduce changes in the fishing gear and to revise other policies impacting negatively on the sector.

#### China - Cotton Sector

This *ex-ante* study developed an analytical framework with the JAPA model scenario analysis, an integrated assessment and a CBA, for the possible economic, social and environmental impacts caused by China's accession to the WTO.

The project examined the impact of tariff rate quotas

(TRQs) on the production and import of selected agricultural products, particularly cotton. It assumed that if the entire TRQ were to be imported, the increase in imports would result in decreased cultivation of some crops, including cotton. Reduced cultivation is expected to bring about



positive effects on the environment because of the reduction in the application of chemical fertilizers and pesticides. The assessment predicted a decrease of cotton cultivation of 1.11 per cent (about 92, 600 hectares). The study also attributed negative economic and social effects to the decrease in cultivated land, which could be used for non-agricultural purposes, such as industry and construction. Furthermore, a cost-benefit analysis predicted that negative economic and social effects from a contraction of cotton production would outweigh positive effects from liberalization within the agricultural sector.

The project recommended measures to support sustainable development of the sector by regularly carrying out integrated assessments on environmental impacts, finding alternatives to pesticides, levying an environmental pollution tax, increasing irrigation efficiency and promoting the production of organic cotton.

#### Ecuador - Banana Sector

The *ex post* study carried out in Ecuador evaluated the social, economic and environmental impacts of trade liberalization on the banana sector, which in the 1990's accounted for 21 per cent of domestic export revenues. It analysed three distinct periods of trade liberalization: structural adjustment policies of the 1980's, early 1990's and the period between 1995-1999. In general, it was found that the impact of banana production on the environment included the loss of biodiversity, reduction of soil, water and air quality, and accumulation of toxic waste and non-degradable material.

In recent years, many of these impacts have been reduced by various initiatives such as national regulations, implementation of multilateral agreements such as, the Convention on Biological Diversity, FAO's International Undertaking on Plant Genetic Resources and the adoption of appropriate market mechanisms.

Policy recommendations included transfer of clean technology, use of environmental certification systems and increase in land productivity through the adop-



tion of efficient technologies. The study revealed that deregulating and applying appropriate policies could substantially reduce environmental damage associated with trade. The project further revealed the need to deepen and quantify the analysis of trade and national production policies, and also, to study the existing environmental regulations in Ecuador.

### Nigeria - Export Crop Sector

The study examined the effects of trade liberalization on the environmental, social and economic aspects of the cocoa and rubber sector.



In Nigeria, the net effects of trade liberalization appeared to be environmentally neutral. The results showed that in the 1990s, both production and export of cocoa and rubber increased. In

the case of cocoa, economic liberalization had no perceptible influence on the environment since farmers managed existing cocoa plantations to boost production during the structural adjustment period. In the case of rubber, however, there was an increasing trend for new areas to be planted, during the same period. This generated an increase in the import of fertilizers and fungicides, while the over-tapping of rubber trees caused soil degradation and erosion.

The study recommended a mechanism to monitor the rate of expansion of export crop farms, to create a product development and marketing programme along with conservation and rehabilitation programmes, and increased government support to agriculture through dissemination of information and the establishment of training workshops concerning the sector.

### Senegal - Fisheries Sector

The country project provided a clear *ex post* examination of the effects of trade distortions, such as developed country subsidies, bilateral fishing agreements and preferential trade arrangements, on fish stocks in Senegal.

In the last twenty years, the European market absorbed up to 66 per cent of Senegal's exports of piscatorial products. Export expansion was a direct result of measures such as export subsidies, free zone or duty-free export company

status, subsidies on fuel, motor and fishing gear, the Lomé Convention and devaluation.

The study revealed that the increase in fishing activities and processing capacities have led to over exploitation of marine resources. Three main reasons were identified,

namely as: insufficient measures for planning small-scale fishing; difficulties in regulating industrial fishing; and absence of planning for the conservation of marine resources and the expansion of the fishing industry.

Policy recommendations included banning or reduction of endangered species exports, use of licensing, introduction of market based mechanisms and economic measures to increase the value of production.



### Tanzania - Forestry Sector

The Tanzanian study examined the effects of trade liberalization on the economic, social, and environmental aspects of the forestry sector.

Exports of forest products, as a proportion of total exports, increased from 3.3 per cent prior to liberalization to 10 per cent after liberalization. Specific trade liberalization measures that had direct or indirect impacts on the forestry sector included the elimination of price controls, the introduction of market-based prices, abolition of export taxes and elimination of the export licensing system. All these policies have led to a significant increase in exports of forest-based products.

The indirect effects of liberalization were loss of soil fertility, decline of forestry and agricultural productivity, increased occupation of marginal forest territory.

Policy recommendations included adopting an effective legal and regulatory system for land use and human settlement, and introduction of other management approaches such as economic instruments.



**Requests for copies of the six Country Studies and the Synthesis Report should be sent to: [etb@unep.ch](mailto:etb@unep.ch)**

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## Calendar of upcoming UNEP/ETB Events and Meetings

MEA-UNEP Meeting on Enhancing  
MEA and WTO Information Exchange  
11 Nov 2002, Palais des Nations, Geneva,  
Switzerland

Third Expert Group Meeting on Economic  
Instruments, 28-29 Nov 2002, Geneva

Integrated Assessment of Trade and  
Trade-Related Policies, A side event to the  
Symposium on Strategic Environmental  
Assessment, Hong Kong 8-13 Dec 2002



MEA-UNEP Meeting on  
Enhancing MEA and WTO  
Information Exchange  
11 Nov 2002, Geneva

The Meeting is organized by the Secretariats of a number of multilateral environmental agreements (MEAs) and UNEP. It will immediately precede the meeting of the Special Session of the WTO's Committee on Trade and Environment on 12 November, which will address information exchange and observer status between MEAs and the WTO.

This meeting is part of a process sponsored by UNEP, in cooperation with a number of MEA Secretariats and the WTO, to enhance synergies and mutual supportiveness of MEAs and the WTO. Underpinning this process is the belief that building a mutually supportive relationship between trade and environment policies, rules and institutions is required to maximize their joint contribution to sustainable development, and can yield significant benefits for MEA parties and WTO Members. This process is also contributing to information exchange between MEA Secretariats on these same issues.

The morning of the meeting will be dedicated to briefings convened by individual MEA secretariats. The briefings will enable MEA Secretariats to explore issues of particular relevance to the agreements whose parties they serve.

The afternoon session will explore approaches to enhancing information exchange and securing reciprocal observer status. It will commence with presentations by MEA and WTO staff, after which participants will be invited to identify areas where information exchange procedures could be regularized and strengthened, cooperation could be deepened, and fully reciprocal observer status for MEAs and the WTO could be established in their respective bodies.

The meeting is open to national trade and environment officials, other inter-governmental organisations and non-governmental organisations.

UNCTAD-UNEP side event on  
Capacity Building in Trade and  
Sustainable Development, at  
the WSSD, 3 Sept 2002

The side event was organized and convened to launch the second phase of the Capacity Building Task Force (CBTF). It was chaired by Minister Surakiart Sathiratai of Thailand and was attended by Ministers from St. Lucia, Romania, Uganda, Finland and Cambodia; Director General, DG Development of the European Commission (EC); Director General of the Common Fund for Commodities (CFC); Director of the Third World Network (TWN); Deputy Executive Director and the Asst. Exec. Director of UNEP; representatives of UNCTAD and WTO; government delegations; and representatives of NGOs.

The event demonstrated the growing collaboration between UNCTAD and UNEP in undertaking capacity building activities to enable governments to identify and respond to linkages between trade, environment and development. Their increased collaboration with the WTO was also highlighted.

Ministers from Finland, Romania, Thailand, Uganda, St. Lucia and the Director-General of the European Commission's DG Development, outlined their expectations for expanded activities in Phase II of the CBTF.

Some of the main points raised during the event were:

- the need for further cooperation between ministries of environment and trade, and between UNEP and UNCTAD; also to avoid duplication of work;
- the need for training developing countries in order to enable them to participate in the WTO negotiations;
- the need for fair trade and coherence between trade and the environmental and social pillars of sustainable development;
- the challenges for small economies to remain competitive in a globalizing economy;
- the need for technical support and technology transfer on a concessional basis; and
- the need for capacity building activities which are responsive to national needs and priorities of recipient countries.