



# United Nations Environment Programme

برنامج الأمم المتحدة للبيئة • 联合国环境规划署

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT • PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE  
ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

---

**International Workshop  
Integrated Assessment of the Impacts of Trade Liberalization in the Rice Sector  
20 September 2005  
International Environment House II, Geneva**

**SUMMARY REPORT**

## **Background**

On 20 September, the United Nations Environment Programme's Economics and Trade Branch (UNEP-ETB) convened an International Workshop to launch the findings of six UNEP-ETB-supported projects on Integrated Assessment of Trade Liberalization in the Rice Sector. These projects represented the latest in a series of country studies that have been conducted by UNEP-ETB since 1997 that assess the environmental, social and economic, or "integrated," impacts of trade liberalization and trade-related policies at national level. The "Rice Projects" were completed in 2004 in six countries (China, Colombia, Indonesia, Nigeria, Senegal and Viet Nam). The leaders of the country projects and government officials from the respective countries were invited to present their findings, recommendations and follow-up activities at this International Workshop. Participants included government representatives, international and non-governmental organizations, academia, and environmental and policy research institutes.

This summary presents the main points that emerged from the workshop, but does not capture the complexity of the outcomes. For a more comprehensive view, the Synthesis Reports of the country studies should be consulted. Synthesis Reports, as well as the complete presentations from the Workshop, are available on the UNEP-ETB website at: <http://www.unep.ch/etb/>.

## **Overview by UNEP-ETB**

The meeting was opened by Hussein Abaza, Chief, UNEP-ETB, who introduced UNEP-ETB's approach to integrated assessment (IA). He stated that UNEP-ETB's IA projects assist national governments in finding any linkages between trade, environment, development, and poverty-reduction. He presented the 28 IA projects that UNEP-ETB has undertaken since 1997 as country-driven, involving all stakeholders from the outset, and embodying a capacity-building, or "learning by doing," approach. He stated that IA's goal of building national capacities aims to enhance the ability of countries to negotiate trade agreements; coordinate amongst ministries; increase participation of stakeholders; and develop complete policy recommendations to support sustainable development goals. While he acknowledged that many countries view environment as a potential hindrance to development, he described environmental protection as an opportunity for development.

Benjamin Simmons, Legal Officer, UNEP-ETB, provided an overview of the Rice Projects. He presented their overall objective of identifying and assessing the environmental, social and economic impacts of trade liberalization on the rice sector. Simmons stated that, as the staple food for half the world's population, and employing over 1 billion people, rice is of critical global importance to food security, rural development, poverty reduction and social structures, compelling reasons for IA of this sector. Simmons noted that the findings resulting from the country projects were complex, and for every rule there were exceptions. He outlined the following trends in the findings: economic impacts were primarily positive; social impacts were mixed, with large scale producers benefiting more than small scale producers; and environmental impacts were largely negative, due to increased production.

## **Presentation of Rice Projects by Participating Countries**

Tunji Akande, of the Nigerian Institute of Social and Economic Research (NISER), and Philip Bankole, of the Federal Ministry of the Environment, provided an overview of Nigeria's Rice Project. Akande stated that Nigeria, whose rice sector produces the highest amount of rice in Africa, is a net importer of rice, but aims to become a net exporter by 2007. As meeting this goal will require a rapid expansion of the sector, he stated that this IA was well-timed. In general, he reported positive economic impacts of trade liberalization, such as income generation, increased employment and poverty reduction, and environmental degradation and increased gender differentiation as negative impacts. The project recommended land use planning to determine appropriate areas for rice production while protecting marginal areas. In addition, as consumer preference is for polished rice, increased procedures, ie milling, and the introduction of quality standards, were recommended. He stated that the assessment has been successful in raising awareness, and that, while expanding the sector, it is also important to take account of the

environmental impacts. He reported that securing the support of policy makers and ministers to implement these findings is a challenge.

Professor Abdoulaye Sene of the Institute of Environmental Sciences, accompanied by Dr. Amadou Abdoulaye Fall of the Senegalese Agricultural Research Institute, stated that rice in Senegal represents half of grain consumption in urban areas and about a quarter in rural areas. Sene reported positive impacts on rice importers, local traders, and large-scale producers, identified as “winners” of trade liberalization policies. However, the study identified small-scale producers and consumers as “losers” of these policies. Positive economic impacts included introduction of new technologies; diversification of supply sources; better use of by-products; and renewed interest in diversification to other crops. The project found limited risk of accumulation of pesticides and a drop in pesticide use overall, but increased risk of malaria. The project recommended increased harmonization, to link institutions with international policy dialogue. Challenges included conflicts between some stakeholders (i.e., importers and small-scale producers); as well as policy distortion and lack of communication. To move ahead, the presenters suggested a steering committee could take a leading role, stimulating stakeholders and monitoring activities, but noted this would require more financing.

Truong van Tuyen of Hue University of Agriculture and Forestry and Trinh Khac Quang of Viet Nam Ministry of Agriculture and Development presented Viet Nam’s Rice Project, stating that rice export and rice production increased rapidly during the 1990s due to trade liberalization, which occurred through removal of domestic rice trade restrictions and export quotas; participation of the private sector in export; reduction in rice export tax; removal of restrictions on fertilizer imports; and tariff reduction. He stated that increase in rice price produced a negative economic impact on consumers, but increasing incomes for rice producers yielded a positive impact on the overall poverty rate. However, he identified negative environmental impacts from overuse of fertilizers and pesticides, particularly on human health. Lack of data availability, difficulty identifying consultants, valuation of impacts, and difficulty approaching the policy process were core challenges identified. Recommendations included improving awareness of trade impacts; encouraging internalization of environmental costs; promoting integrated rice farming; eliminating non-tariff barriers and stopping protection of state-owned enterprises.

Hu Tao, of the State Environmental Protection Administration of China, presented China’s Rice Study, which began with China’s accession to the WTO. He stated that the project predicted no big economic impacts in the rice sector by 2010, but outlined differing future trends for China’s two significant kinds of rice, Indica and Japonica. For Japonica rice, grown in the North, he stated that China has a comparative advantage, and great export opportunities, while the level of competitiveness for Indica rice, grown in the South, will likely decrease slightly. As a result, he stated that Japonica rice will have positive income impacts, while Indica rice producers will face slight income reductions. Environmental impacts will also differ accordingly: Japonica rice regions will increase chemical fertilizer use, while the use of chemical fertilizers, as well as pesticides and water, will generally decrease in Indica regions. The project’s recommendations included expanding green food and organic food production and improving the existing eco-labelling system. He also recommended, from the perspective of environmental protection and economics, that China loosen its food self-sufficiency policy to accommodate more imports. Finally, he recommended more research to improve methodologies, and to extend the study to consider impacts along the rice product chain.

Matius Supramoko of Jenderal Soedirman University presented Indonesia’s Rice Project, which emphasized integrated impacts of the AoA and their interrelationship with Structural Development Policies. He stated that rice is the main staple food in Indonesia, which was a net importer of rice until 1994; the subsequent economic crisis led to radical trade liberalization. Economic impacts found by the IA included an increase in domestic real price. Though some farmers switched crops, he noted that the majority continued, despite the increased costs. Related to this, the identified social impacts on local traditions and culture, poverty and urbanization were negative. In addition, Supramako stated that rice fields play multiple ecological functions, so there were negative environmental impacts when farmers shifted to other sectors. Noting these impacts, the project

recommended that the government should increase total rice production and yield, and develop rice marketing infrastructures. He pointed out that the current finance system encourages resource depletion and environmental degradation, and that civil workers are underpaid, leading to inefficiency. He stated that continued discussion and dissemination of the project results was necessary, so that the government could take the lead in implementing recommendations.

Samuel Canizalez Zambrano, of the Colombian National Planning Department, stated that rice consumption has fluctuated in Colombia, but both prices and costs have overall decreased in the last 12 years, which has stimulated consumption. He noted that rice prices were shown to be closely linked to wheat prices; the impact of international price reductions has been that Colombia, which was net exporter until 1991, is now a net importer. Rice production, he stated, contributes to employment, and energizes local and regional development. He noted some conflicts arising over land and water use. He also pointed out that the rice agro-industrial chain is one of the most demanding in terms of agro-chemicals, which can contaminate water. Soil compacting and erosion, threats to air quality, and alternations in biodiversity of natural ecosystems were other environmental impacts identified. He reported that the Environmental Ministry, in partnership with other institutions participating in the IA, developed an Environmental Guide for rice cultivation, which was useful for the FTA negotiations with the USA.

Abaza thanked the EC and Norway for providing funding for the project. He stated that, due to the complexity of the issues, progress can be incremental, and patience is necessary. The need to do business in a new way, he stated, must be demonstrated through practical studies on the ground, and continuous dialogue. He stated that these IA projects intend to raise awareness. With incremental policy changes, he stated, countries can capitalize more on environment, trade and poverty reduction objectives. He stated that integration is key.

### **Conclusion**

Within the framework of IA of the impacts of trade liberalization on the rice sector, country projects differed greatly in the impacts analysed, the methodologies utilized, the outcomes identified, and the recommendations made. Country teams all noted, however, that the IA had encouraged a participatory process in decisionmaking, and facilitated communication between relevant ministries and stakeholders.