

## Deutscher Tropentag, October 8-10, 2003, Göttingen

"Technological and Institutional Innovations for Sustainable Rural Development"

## Cost-Benefit Analysis of Eco-Labeling in the Agriculture Sector of Developing Countries in Asia

Maria Cristina Carambas<sup>1</sup>, Roland Herrmann<sup>2</sup>, Ulrike Grote<sup>1</sup>

## Abstract

Eco-labeling, a practice of supplying information on the environmental characteristics of a commodity, is becoming increasingly popular because of its potential to achieve environmental goals through a market-based approach. Although it is more widely used in manufactured products, it is slowly gaining ground in the agricultural sector. In this sector, eco-labeling includes certified organic farming in as much as it involves environment-friendly practices, such as less intensive use of land and soil fertility-improving techniques that do not involve the use of chemical elements. While conversion from conventional to organic farming is deemed environmentally-beneficial, an extensive assessment to determine its costs and benefits for the developing countries is still lacking. It should be noted that based on a very few non-empirical studies, costs could be high due to certification and possible yield reduction. This study is deemed necessary and relevant especially since certified organic farming in the developing countries is only in its infancy stage, and done mostly to access export market of developed countries. This study could help the governments (1) assess the overall efficiency of organic farming both on economic and environmental grounds; and (2) address constraints and opportunities of organic farming.

The study aims to assess the overall costs and benefits of certified organic farming in Asian developing countries, specifically Thailand and the Philippines. Motivation for this study is based on the increasing trend in the demand for organic products. To achieve this objective, a structured questionnaire was prepared before a survey is conducted for organic farmers of one major export organic commodity, that is, rice for Thailand and banana for Philippines. Using the data collected, analysis was undertaken by comparing the costs and benefits for both the organic farmers and conventional farmers. Results of the study would show not only the financial costs and benefits but environmental and health as well. Relevant policy implications are derived with regard to needed interventions by the government as well as other concerned international organizations, e.g. the World Trade Organization (WTO), considering that there are still gray areas in the use and implementation of eco-labeling in international trade.

**Keywords:** Benefits and costs analysis, eco-labeling, environmental labeling, organic agriculture

<sup>&</sup>lt;sup>1</sup> University of Bonn, Economics and Technological Change, Germany

<sup>&</sup>lt;sup>2</sup> Justus-Liebig-Universität Giessen, Institute for Agricultural Policy and Marketing, Germany