AGRODEP BULLETIN

TRADE PROTECTION AND TAX EVASION
EVIDENCE FROM KENYA, MAURITIUS, AND NIGERIA

"*The new tariff has low rate of duty that would encourage payment of duty and discourage smuggling activities*''- Customs Comptroller-General of Nigeria, Alhaji Hamman-Bello Ahmed (Vanguard, News Report, October 2008).

The effect of trade protection on tax evasion is of great policy interest in low income countries, as a considerably large share of total government revenues in these countries comprises tariff revenues. Between 2001 and 2003, trade tax revenues comprised 22 percent of total government revenues in low income countries, while in the OECD countries, it was just 1 percent. Even though the shares of tariff revenue have gone down over time in these countries, they continue to be significant in governments' budgets. Thus, fear of losing a major source of revenue is widely perceived to be a deterrent to trade liberalization.

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The effect of the level of tax rate on tax evasion has been highly contentious in the literature owing to the theoretical ambiguity about the direction of the impact as well as the problems of measurement of evasion. In 1964, Bhagwati suggested that the discrepancies between a country's reported imports and the corresponding exports reported by its trading partners may be explained by the undervaluation or misclassification of imports at the border in order to reduce the tariff burden. In 2004, Fisman and Wei argued that trade flows in fact offer a good opportunity to analyze the relationship between the tax rate and evasion with the measurement of evasion suggested by Bhagwati. Several studies have explored the correlation between trade taxes and evasion using the reported

gap between exporting and importing country agencies.

A study of the International Food Policy Research Institute evaluates the tariff evasion for Kenya, Mauritius, and Nigeria, three countries that differ in their perceived institutional quality as it appears according to international rankings such as that from Transparency International. Moreover, at least two of these countries are highly dependent on tariffs as a source of revenue.

In this analysis, evasion is postulated to be a function of the level of applied tariffs and incentives to evade vary across exporters: for example, the customs enforcement is likely to vary depending upon the origin of imports. Reputation effects could imply that customs officials are more circumspect when the same product is shipped from particular countries. Also the mode of shipment could differ across trading partners, affecting the ease of evasion. Another characteristic that could be extremely important for determining evasion is the system of pre-shipment inspection.

The results of this study indicate that in these three African countries, the evasion (semi) elasticity is significantly positive, with weaker evidence in the case of Mauritius. Moreover, the evasion elasticity is higher in Nigeria than in Kenya and higher in Kenya than in Mauritius. The difference between the three cases is preserved when comparing the same set of products and trading partners. This relative ordering of the estimated evasion elasticity matches the ordering in different indices of perceived institutional quality (for example, as provided by Transparency International).

Therefore, when discussing trade liberalization agreements, the expectation by African governments of a loss of trade revenue need not be valid. The level of trade itself could rise with a lowering of tariffs; also, losses in revenue collection could be offset by increases in collection efficiency.

Devesh Roy, Research Fellow, IFPRI

DATA
Recent statistics about Africa

2011 GLOBAL HUNGER INDEX

This year's Global Hunger Index (GHI) shows that global hunger has declined since 1990, but not dramatically, and remains at a level characterized as "serious." Across regions and countries, GHI scores vary greatly. The highest GHI scores occur in South Asia and Sub-Saharan Africa. Though Sub-Saharan Africa made less progress than South Asia after 1990, it has caught up since the turn of the millennium.
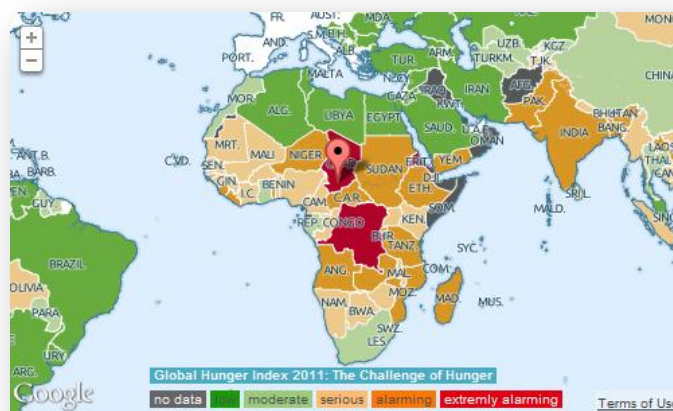

FIGURE 1. GLOBAL HUNGER INDEX (GHI) (HTTP://WWW.IFPRI.ORG/PUBLICATION/2011-GLOBAL-HUNGER-INDEX)

AGRODEP GRANTS
Grants for Innovative Research

AGRODEP recently awarded 14 grants to its members who responded to a competitive call for proposals for innovative research issued in June of 2011 (see the AGRODEP Grant Program for more details). Six of the selected proposals cover two years of research with the objective of identifying existing policies proposed and implemented under the Comprehensive Africa Agriculture Development Programme (CAADP) Agenda and performing a systematic assessment that identifies the major bottlenecks affecting the efficiency of such policies.

List of AGRODEP grantees for Innovative Research:

Shams E. H. Ahmed, Sudan University of Science and Technology, Sudan; Raga, M. Elzaki, University of Gezira, Sudan; Mutasim M. Elrasheed, Sudan University of Science and Technology, Sudan
Study: Analysis of Sudan-Egypt cross Border Live Camel Trade, The case of River Nile State.

Joseph François Cabral, Université Cheikh Anta Diop de Dakar (UCAD), Senegal
Study: Rainfall and economic growth: evidence from Senegal and Burkina Faso.

Vinaye D. Ancharaz, Mounir Balloumi, University of Sousse, Tunisia
Study: Impact of Climate Change on Agricultural Productivity and Food Security in Eastern and Southern Africa.

Olumuyiwa B. Alaba, Lead City University, Nigeria
Study: Extreme Climate Deviations, Cereal Yield and Food Security in Nigeria: A Tracer Study.

Indranarain Ramlall, University of Mauritius, Mauritius.
Study: Assessing the Impact of Climate Change on Food Crops Production in Mauritius.

Lulit Mitik Beyene, Center for Development Consulting (CDC)
Study: Implications of high commodity prices on poverty reduction in Ethiopia and policy options under an agriculture-led development strategy.

Olayinka Idowu Kareem, The World Bank, Nigeria
Study: Product Standards and Africa's Agriculture Exports.

Marko Kwaramba, University of Cape Town, South Africa
Study: Trade Reform and quality upgrading: a Product Level Analysis.

Nnaemeka Chukwuone, University of Nigeria Nsukka
Study: Analysis of Impact of Climate Change on Growth and Yield of Yam and Cassava and Adaptation Strategies by the Crops Farmers in Southern Nigeria.

Patterson C. Ekeocha, National Assembly, Nigeria, Godwin A. Abu, University of Agriculture, Nigeria
Study: Tariff Structure Under the ECOWAS Common External Tariff and the Competitiveness of the Agricultural and Manufacturing Sectors: Evidence from Nigeria.

Akoété Ega Agbodji, University of Lomé, Togo
Study: Construction d'une matrice de comptabilité sociale avec des branches et produits agricoles désagrégés.

Azharia A. Elbushra, Sudan University of Science and Technology, Sudan; Raga M. Elzaki, University of Gezira, Sudan; Ibrahim Suliman, University of Kordofan, Sudan; Osman Babikir, University of Zalingei, Sudan
Study: Agricultural Efficiency, External Price Shocks and Poverty in Sudan: A Computable General Equilibrium Model Analysis.

Reuben Adeolu Alabi, Ambrose Alli University, Nigeria
Study: Foreign Aid and Agricultural Growth in SSA: A dynamic Specification.

Miriam W. O. Omolo, Institute of Economic Affairs, Kenya
Study: Construction of SAM for Kenya 2010.

AGRODEP TRAININGS
2012 Training schedule

AGRODEP recently announced its training program for 2012. These courses range from training on data (SAMs, household surveys) to CGE modeling, poverty analysis, impact evaluation, and panel data econometrics. The first training course, *Building and Updating a Social Accounting Matrix,* will be offered in Dakar, Senegal on March 13-15, 2012 by Ismael Fofana, Post-Doctoral Fellow at the International Food Policy Research Institute (IFPRI).

The training course will provide participants the necessary knowledge on how to build and update a SAM from national accounts tables. Participants will also learn how to transform a SAM into an input-output table used by global Computable General Equilibrium (CGE) models (e.g. GTAP or MIRAGE models).

Other upcoming training courses offered by AGRODEP in 2012 are the following:

- **April 23-26**: *Poverty Measurement and Analysis*: four days/Philippe Van Kerm and Anne-Claire Thomas, Universite catholique de Louvain, Belgium.

- **May 14-25**: *GAMS-based Computable General Equilibrium Modeling (basic)**: nine days/Veronique Robichaud, Universite Laval, Canada.

- **September 24-28**: *Panel Data Econometrics:* five days/Rembert de Blander, Universite catholique de Louvain, Belgium.

- **September**: *Household Surveys Data: Sampling and Processing*: three days/Carlo Azzari & Melanie Bacou, IFPRI, USA.

- **October**: *Impact Evaluation & Analysis of Development Interventions*: five days/Bernard Tanguy, IFPRI, Senegal.

- **November**: *GAMS-based Computable General Equilibrium Modeling (advanced)*: three days/Veronique Robichaud, Universite Laval, Canada.

- **December**: *Multicountry and Multisector General Equilibrium Analysis (MIRAGRODEP)*: three days/David Laborde & Antoine Bouet, IFPRI, USA.

AGRODEP will post additional details and updates on its training program at: http://www.agrodep.org/event/forthcoming-training-courses.

*Note: the basic CGE modeling class or equivalent background is a pre-requisite for the *GAMS-based Computable General Equilibrium Modeling (advanced)* course in November.

What is AGRODEP?

The African Growth and Development Policy (AGRODEP) Modeling Consortium is an initiative led by IFPRI in collaboration with CORAF, ASARECA, and FANRPAN. The goal of AGRODEP is to position African experts to take a leading role in both (1) the study of strategic development questions facing African countries as a group and (2) the broader agricultural growth and policy debate, which traditionally has been dominated by external actors and concerns.

KEY COMPONENTS

AGRODEP consists of four key components. Three focus on policy research and analysis, and one focuses on policy debate.

A Shared Modeling Infrastructure

AGRODEP provides a platform for sharing existing core economic models dealing with sector, national and international policy issues as well as long-term projections.

A Common Database Platform

AGRODEP brings together dispersed and disparate statistical, economic, and geospatial data in Africa in one central clearinghouse with a Web data portal. AGRODEP also provides data quality checking and certification.

A Network of Experts

AGRODEP is a network currently consisting of 55 African researchers. The networking activities of AGRODEP encourage joint research activities, technical meetings and outreach events, training workshops and seminars that promote innovation.

A Community of Practitioners

AGRODEP establishes a set of specific, thematically or technically focused interest groups to serve as a forum for scientific exchange, training, and capacity building.

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