

# KCP Perspectives

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## Message from the Editor



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It's a pleasure to present our second issue of "KCP Perspectives" to our KCP partners. As you know, the rationale for this publication is to examine the findings and impact of completed projects funded by the KCP. Once completed, the outputs are disseminated extensively and published in different media outlets, such as journals, books, databases, and web-based publications. However, the impact is usually not visible until several years later. In this issue, we will take a look at two very different KCP-funded research topics that have had a positive impact.

The first covers three KCP projects in the area of "Trade Policy and Development," two of them specifically on agricultural trade, which is of great importance to the poorest countries. The findings of the KCP projects indicate that trade liberalization can have both benefits and drawbacks for poor countries, depending on the structure

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## Trade Policy and Development

Although globalization offers opportunities for economic development, trade liberalization hasn't boosted economic growth in many developing countries, and particularly so in the Least Developed Countries (LDCs). Many of these countries are increasingly marginalized in world trade. From rice farmers in Vietnam to cotton growers in Zambia, poor farmers in the developing world face huge challenges in benefitting from trade opportunities brought on by improved access to export markets. These challenges include financing inputs such as seeds and fertilizer, connecting to local markets and supply chains, and competing with farmers that benefit from high agricultural subsidies in the developed world.

Preparing for the 2005 WTO Hong Kong ministerial meetings, donors and development partners were interested in a comprehensive analysis of these challenges and their policy implications. A series of KCP projects<sup>1</sup> focused on the question of how multilateral disciplines negotiated in the WTO could help address some of these challenges, and sought to quantify the impact of both prevailing trade policies and possible reforms to benefit farmers in developing countries.

### Key lessons from the KCP projects

Three projects on trade policy were funded by the KCP. Each concluded that trade and WTO rules are conducive to economic development, provided that certain conditions are met. The first project, **Agricultural WTO Trade reforms & Their Impact on Poverty: Consumption & Income Effects** (TF053519), focused on the impact of trade reforms in agriculture on household behavior and outcomes in developing countries. This research shows that economic benefits at the household level from global trade reforms are higher when trading opportunities are complemented with domestic reforms. The second, **Agricultural Trade Policy** (TF051758), looked at a large number of case studies in developing countries, which have undertaken significant policy reforms in agriculture. Here too, the research shows that reforms can be conducive to poverty reduction, if they are designed and implemented through a multi-commodity approach. The third KCP project, **The WTO and Economic Development** (TF090455) set out to answer the question: 'What is the benefit of the WTO institution from the perspective of developing countries?' The study finds that WTO rules can make a difference in having a sizable and pro-development effect on developing countries' trade flows.

### Global reform of agriculture: Complementary policies matter

The KCP project, **Agricultural WTO Trade reforms & Their Impact on Poverty: Consumption & Income Effects** (TF053519), developed an empirical model to assess the impact of trade reforms in agriculture on household behavior in developing countries. Specifically, this project developed a model that analyzes the impact of the prices of consumption goods and sources of income

<sup>1</sup> Agricultural Trade Policy (TF051758), Agricultural WTO Trade reforms & Their Impact on Poverty: Consumption & Income Effects (TF053519) and The WTO and Economic Development (TF090455).



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(from agricultural production and wages), and also a tool to estimate the relevant demand and wage responses and applied the model to rural Mexico and rural Zambia.

The model predicts that economic benefits at the household level depend on the price impact of greater trading opportunities. That impact depends in turn on a variety of factors that determine the extent to which world price changes (as a result of global reform) are “passed through” to households. The effect depends on where households live—the farther away from the border or port, the lower it is. The policy implication is that for farmers to benefit from higher world prices following global trade reforms, there must be domestic reforms that improve the connection between farmers and markets while addressing supply constraints. This result was illustrated with case studies for the countries mentioned above. These findings helped underpin the argument that “Aid for Trade”<sup>\*</sup> should be used to complement trade reforms in the WTO. The ideas explored in this project were part of the core issues discussed in the sixth annual meeting of the Global Development Network (GDN) held in Dakar, Senegal in January 2005. These ideas featured prominently in the discussions and deliberations in the run-up to the WTO ministerial meeting in Hong Kong at the end of 2005, where the Aid for Trade initiative was formally launched.

## What does country experience teach us?

The KCP project, **Agricultural Trade Policy** (TF051758), conducted a large number of case studies in developing countries that have undertaken significant policy reforms in agriculture and produced an award-winning book, *Global Agricultural Trade and Developing Countries*.<sup>2</sup> By providing a comprehensive analysis of market developments and the impact of policies for a set of commodities that are most important for producers in developing countries, the report provided a rich narrative of the complex ways that the poor succeed in taking advantage of the opportunities offered by trade and trade reform in agriculture or ways through which they fail. The project identified both the key policy instruments that distort competition and the likely winners and losers from global reforms, including producers, consumers and taxpayers. Knowing who is likely to gain or lose from a given reform is critical for sequencing reforms and putting in place complementary policies, including assistance to reduce the cost of adjustments in noncompetitive sectors. In this sense, the book expands on the research findings of previous research and provides a comprehensive list of examples. The main conclusion is that global agricultural trade policy reforms can be conducive to poverty reduction, if they are designed and implemented through a multi-commodity approach. This will allow countries to trade off gains in some commodities against likely losses in others. For example, the book shows that world sugar price increases alone would offset about half of the loss in quota rents for countries whose preferential access to protected sugar markets would be eroded as a result of liberalization. The findings of this project were extensively used in the WTO negotiations and disseminated widely through conferences and seminars in both industrial and developing countries.

## Do WTO rules work for poor people?

Expanding from the discussion of agricultural trade reform to the general WTO institution, the KCP supported **The WTO and Economic Development** (TF090455), which set out to answer the question: ‘What is the benefit of the WTO institution from the perspective of developing countries?’ The project revolved around a case study designed to examine and quantify the value of certain WTO rules to export-oriented economic activity in developing countries. The WTO, for example, imposes constraints on trade policy in safeguard measures, which involves imposing trade barriers by a government to protect a domestic industry from import competition. An important and potentially pro-development feature of these WTO rules is that the application of new import restrictions must exempt the trade from firms in poor exporting countries. The case study investigated the import restrictions on steel by the US, EU and China in 2002–2003 and the impact they had on steel-producing firms in India, a relatively nascent industry at that time, which the WTO rules mandated would be exempted from the newly imposed trade barriers.<sup>3</sup> Estimating the impact of this unexpected market-access shock using firm-level data for Indian steel producers, the paper shows how firms were able to take advantage of new export opportunities resulting from the application of WTO rules,

<sup>2</sup> *Global Agricultural Trade and Developing Countries*. Edited by M. Ataman Aksoy and John C. Beghin. Washington, D.C.: World Bank, 2005. The book received a quality of communication award from American Agricultural Economic Association.

<sup>3</sup> Bown, Chad P. and Guido Porto (2009) “Export Preferences, Export Surges and Hysteresis: Indian Steel Firms and Import Safeguards,” unpublished manuscript, September. See also Bown, Chad P., “Adjustment to Foreign Changes in Trade Policy under the WTO System,” in Bernard M. Hoekman and Guido Porto (eds.), *Trade Adjustment Costs in Developing Countries: Impacts, Determinants and Policy Responses*, London, UK: CEPR and the World Bank, 2010, 237–251 (chapter 15).



and they continued to export, even after the temporary benefit provided by the WTO rules expired along with the safeguard import restrictions by the US, EU and China.

The results of the three KCP projects suggest that trade can be a catalyst for change by promoting conditions that enable the poor to raise their income levels. However, they also demonstrated that the poor can be particularly vulnerable in the reform process. Among the many lessons from the studies was the need for household- and firm-level analysis of the impact of global trade reforms and for policy makers to carefully consider the need for complementary policies that promote pro-poor growth with social protection.

## Development Policy Analysis with MAMS

Development thinking has shifted from a near-exclusive concern with economic variables, such as GDP, toward a broader perspective, which covers poverty, health, education and other indicators of human development. These broader concerns are manifested in most discussions of development policy, including country strategies to reduce poverty and achieve the MDGs. However, economists and other social scientists often lack analytical tools that can help policy makers think about the consequences of different decisions about taxation and how to allocate spending out of available resources, including foreign aid, across different areas such as human development and infrastructure.

To address this gap in the toolbox and help countries monitor progress toward the MDGs and deal with questions about the strategies for achieving the goals, the Bank has developed a new analytical tool,

known as the Maquette for MDG Simulations, or MAMS, with financial support from the KCP. The KCP funded the development and application of MAMS through a project, **Poverty Reduction and Human Development: Analysis of Alternative Strategies within an Economy-Wide Framework** (TF055565). The framework was fine-tuned with a follow-up KCP project, **Micro Simulations of Poverty Reduction and Service Delivery in a User-Friendly Economy-Wide Framework** (TF057817), which strengthened the empirical validation of the MDG production functions and enriched the scenario used to describe and analyze MDG strategies.

### What's MAMS?

MAMS is an extended, dynamic recursive CGE model that analyzes the relationship between a set of building blocks, such as government fiscal policy, the balance of payments (including foreign trade and aid), and domestic production and consumption. The model simulates the effect of spending on infrastructure, health and education services, and analyzes the channels through which the economy is affected. The fact that the MAMS framework addresses issues high on the development agenda has led to strong demand for analyses inside and outside the Bank. MAMS has since presented an opportunity for economy-wide, country-level analysis of medium- and long-run development policies, including strategies for reducing poverty and achieving the Millennium Development Goals for developing countries.

### Innovations that serves national governments

The two projects have fulfilled their broader objectives as they have succeeded in (i) creating and establishing MAMS as the leading economy-wide model for human development analysis, and (ii) building a global community of analysts in developing

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of the country's economy. Therefore, trade reforms need to be complemented with domestic economic reforms to ensure a wider and larger benefit at the household level. Both agricultural trade studies (**Agricultural Trade Policy** and **Agricultural WTO Trade Reforms & Their Impact on Poverty: Consumption & Income Effects**) were critical for the intellectual underpinning of the "Aid for Trade" initiative.\*

The second story is about MAMS, which stands for the Maquette for Millennium Development Goals (MDG) Simulations. This is an analytical tool that was developed and refined almost exclusively with support from the KCP. The whole idea for developing this tool was to assist client countries in their effort to simulate "Human Development" outcomes related to specific changes in economic policies. The results have been encouraging and the use of the MAMS tool is increasing among policy makers in developing countries. Therefore, the World Bank (Bank) continues to train government economists from a wide range of client countries on how to use this unique tool.

We are planning on two more issues in 2012 in order to continue to show how knowledge has been a catalyst for positive and constructive change in developing countries.

\* Aid for Trade is a multilateral initiative to assist developing countries, especially low-income countries, to integrate into the world economy as a way to spur growth. Launched formally in 2005 at the Hong Kong Ministerial of the WTO, the initiative was designed to help developing countries take advantage of market openings.





MAMS training session in Uganda

and developed countries, with experience in and willingness to continue using MAMS for applied policy analysis. Currently, the model has been applied to some 40 countries.<sup>4</sup> Perhaps most importantly, findings from MAMS-based research have served as inputs to policy making. For example, two governments<sup>5</sup> have used the framework for their own analysis of MDG strategy. In addition, it is worth noting that MAMS has contributed to World Bank reports and other World Bank products in 11 countries, including 8 countries in Sub-Saharan Africa. Among these, the Uganda Country Economic Memorandum (CEM) titled “Uganda—Moving Beyond Recovery: Investment and Behavior Change for Growth” stands out, as it gave rise to strong government interest. The CEM team was among the recipients of the World Bank Africa Region Chief Economist’s Best Practice Award for Economic and Sector Work in 2007. The success was achieved as a result of training and collaborative research that the KCP has greatly supported.

## An example from Uganda

When MAMS was first applied in Uganda, there was much debate over development policy. MAMS simulations explored the effect of foreign aid and concluded that more aid was required for Uganda to make substantial gains in reaching the MDGs. Albert Musisi, a highly qualified economist and government official at the Ministry of Finance of

Uganda, was the all-important bridge between the Bank and the government of Uganda. “There was a real impact when the main message of the MAMS simulations was heard from national researchers, such as Albert,” recalls Dino Merotto, a senior economist at the World Bank and a Uganda country economist. “MAMS was an integral tool in the development of the macroeconomic and fiscal strategy components of Uganda’s National Development Plan (NDP) for 2010/11–2014/15,” Albert Musisi acknowledged (Government of Uganda, 2010, pp. 54–60; Musisi 2009). “Training on the underlying model provided with the support of the KCP truly helped us appreciate the usefulness of the tool, particularly in policy,” he added.

## What should come next?

MAMS has since become popular among international researchers. In addition to the training activities, as of May 2010, the MAMS program had given more than 50 presentations and courses all over the world and contributed to more than 65 written products. Hans Lofgren, the key author of the model and computer-code, gave credit to KCP funding for this outreach effort, saying that the fund was a catalyst for a large number of activities that attracted additional resources and financing. He now looks beyond the wide dissemination of project outputs. “The highest future payoffs will stem

## For more information

### Global Agricultural Trade and Developing Countries

<http://go.worldbank.org/QKP3THKZC0>

### Agricultural WTO Trade reforms & Their Impact on Poverty: Consumption & Income Effects

<http://go.worldbank.org/41X5S9W170>

### Agricultural Trade Policy

<http://go.worldbank.org/41X5S9W170>

### The WTO and Economic Development

<http://go.worldbank.org/NM24STSPM0>

### Poverty Reduction and Human Development: Analysis of Alternative Strategies within an Economy-Wide Framework

<http://go.worldbank.org/STCLLCBVJ0>

### Micro Simulations of Poverty Reduction and Service Delivery in a User-Friendly Economy-Wide Framework

<http://go.worldbank.org/G15N3S4HX0>

from reducing the cost of using the model, in terms of time and skills required to use it. Once the MAMS interface has been beta tested and fine-tuned, we anticipate that it will serve as a vehicle for additional MAMS applications and training activities in different parts of the world,” predicts Hans. In order to reach a critical mass of analysts with appropriate backgrounds and ensure that the impact is sustainable and not limited to the World Bank, it is important that continued support is provided for training and research activities in regions and around the world.

<sup>4</sup> See [www.worldbank.org/mams](http://www.worldbank.org/mams) for a complete list with details on each country (several countries have multiple applications).

<sup>5</sup> With technical support from the World Bank, Ethiopia and Uganda have used or are using the framework for their own analysis for MDG strategies and National Development Plan.