

## **Trade data**

Mark Gehlhar continues to make progress on commodity-level trade and transport database for future releases. Trade data is being prepared for year 2001 for GTAP database version 6. Some great news on this front is that most data is now reported on HS-1996 classification with the exception Malawi and Pakistan where SITC is still used. New countries in the database now with authentic trade flows include Albania, Botswana, Croatia, Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Luxembourg, Malawi, Malta, Romania, Slovakia, and Slovenia. There is also additional innovative work being carried out on re-export related problems.

## **Evaluation of tariff data in V6**

ERS's MTED division has a team working on a number of market access issues for high-value food trade. This includes tariff aggregation, tariff escalation, SPS, and related non-tariff barriers. A compilation of SPS measures has been completed for both developed and developing countries and various food sectors. Mark Gehlhar and John Wainio have successfully reconstructed and completed tariffs for all food processing sectors of the GTAP database. This was accomplished by weighting exporter's product trade at a detailed level (HS 6-digit). Results from a simulation exercise revealed that simple average, as in the current version of the GTAP database, in some cases under-stated and in other cases over-stated the impact of tariff reduction depending on the volume of trade. Mark and John extended their trade-weighting coverage beyond processed products including other crops, and the vegetable, fruit and nut sectors, which are also susceptible to tariff aggregation biases. Michael Trueblood is updating applied agricultural tariffs for GTAP commodities for version 6.0.

## **Agricultural protection data for GTAP database version 6**

A team at Market and Trade Economics Division (MTED) contributed the agricultural protection data on the three disciplines: market access, export subsidies, and domestic support. The team obtained detailed information allowing for further reclassification of the producer support estimates as measured by the OECD. Another dimension of this disaggregation was based on WTO notifications of specific programs, where minimally distorting payments (green) were separated from trade distorting-type of support payments (amber).

## **Export subsidy data**

Aziz Elbehri developed the methodology and calculated ad valorem exported subsidy equivalents for V6 that was submitted to GTAP Center April 1, 2003 . The data is documented in, Elbehri, A. "Agricultural Export Subsidies," for GTAP Database Version 6.

## **Land and water resources database**

Roy Darwin, Kevin Ingram, and John Sullivan continue to revise the land and water resources database used by the Future Agricultural Resources Model (FARM), a modified version of the first GTAP database and model, to be compatible with version 5.3 of the GTAP database. Work on this database was suspended periodically last year to conduct research on the agricultural impacts of greenhouse gas emissions. Nevertheless, preliminary data on land cover, crop

production, livestock production, and forestry production by agro-ecological zone for mainland China and the United States was provided to the Center for Global Trade Analysis for evaluation as part of an US Environmental Protection Agency funded project to establish an integrated database for assessing the potential of greenhouse gas mitigation in CGE models.

## 1996 US-IO

Ken Hanson and Agapi Somwaru are working in developing the 2001 United States (US) Input-Output (I/O) accounts for the GTAP version 6 database. They US IO will be based on the 1997 benchmark Input-Output accounts published in December of 2002 by the US Department of Commerce, Bureau of Economic Analysis (Survey of Current Business).

### Publications

#### Articles

Darwin, R. 2003. "Impacts of Rising Concentrations of Greenhouse Gases." Chapter 7.2 in Agricultural Resources and Environmental Indicators, U.S. Department of Agriculture, Economic Research Service, Washington, DC

Burfisher, Mary E., Sherman Robinson and Karen Thierfelder (2002). "Developing Countries and the Gains from Regionalism" in American Journal of Agricultural Economics, Vol. 82, No. 3: 726-748.

Burfisher, Mary E., Sherman Robinson and Karen Thierfelder (2002). "Developing Countries and the Gains from Regionalism" in American Journal of Agricultural Economics, Vol. 82, No. 3: 726-748.

Diao, Xinshen and Agapi Somwaru. "A global Perspective of Liberalizing World Textile and Apparel trade," Nordic Journal of Political Economy, Vol. 28 (2): 782-790, 2002.

Diao, Xinshen, Agapi Somwaru, Terry Roe. "Developing Country Perspectives on Agricultural Reforms in the WTO," American Journal of Agricultural Economics, Vol. 84 (3): 127-146, August, 2002.

Elbehri, A., M. Ingco, T. W. Hertel, and K.R. Pearson. "Liberalizing TRQs: Quantifying the Effects of Enhancing Market Access," Chapter 10 In: Agriculture and the New Trade Agenda from a Development Perspective: Interests and Options in the WTO 2000, Cambridge University Press, 2003.

Elbehri, A., T.W. Hertel, and W. Martin. "Estimating the Impact of WTO and Domestic Reforms on the Indian Cotton and Textile Sectors: A General Equilibrium Approach" Review of Development Economics (forthcoming).

Gehlhar, Mark and John Wainio (2003). "Implications of Tariff Reduction for High Value Food Product" in Global Markets for High Value Products eds Gehlhar and Regmi. ERS, Agricultural Economic Report (forthcoming, October 2003).

Wainio, John, Anita Regmi, and N. Kathuria (2003). "Market Access for High Value Agricultural Products" in Global Markets for High Value Products eds Gehlhar and Regmi. ERS, Agricultural Economic Report (forthcoming, October 2003).

### **Unpublished Conference Presentations and Invited Speeches**

Darwin, R. 2002. "The New FARM Database on Global Land Use." Presented at the Workshop on the Incorporation of Land Use and Greenhouse Gas Emissions into the Global Trade Analysis Project Data Base, September 5-6, Cambridge, MA.

Darwin, R. 2002. "Simultaneous Global Modeling of Agriculture and Forestry: New Developments." Presented at the 2nd Workshop of the Forestry and Agriculture of Greenhouse Gas Modeling Forum, October 8-11, Shepherdstown, WV.

Burfisher, Mary E., Sherman Robinson and Karen Thierfelder (forthcoming). "The Effects of an FTAA on Agriculture in the Western Hemisphere" in U.S. Agriculture and the FTAA, ERS, USDA (forthcoming).

Canning, Patrick and Zhi Wang. "A Flexible Modeling Framework to Estimate Interregional Trade Patterns and Input-Output Accounts," Paper prepared for presentation at the 6th International Conference on Global Economic Analysis, The Hague, Netherlands, June 12-14, 2003.

Elbehri, Aziz and Stephen MacDonald, (2003), "Transgenic cotton and crop productivity: A general equilibrium analysis for West and Central Africa," Paper prepared for presentation at the 6th International Conference on Global Economic Analysis, The Hague, Netherlands, June 12-14, 2003.

MacDonald, Stephen, Leslie Meyer and Agapi Somwaru. "Perspectives on Cotton Global Trade Reforms." Paper prepared for presentation at the 6th International Conference on Global Economic Analysis, The Hague, Netherlands, June 12-14, 2003.

MacDonald, Stephen, Leslie Meyer and Agapi Somwaru. "Perspectives on Cotton Global Trade Reforms." Paper selected, American Agricultural Economic Association annual meeting, Montreal, Canada, July 27-30, 2003.

Somwaru, Agapi and David Skully. "Will Special Agricultural Safeguards Advance or Retard LDC Growth and Welfare? A Dynamic General Equilibrium Analysis." Paper prepared for presentation at the 6th International Conference on Global Economic Analysis, The Hague, Netherlands, June 12-14, 2003.

Trueblood, Michael and Agapi Somwaru. "Trade Liberalization and the Least Developed Countries: Modeling the EU's Everything But Arms Initiative and a Hypothetical U.S. Response," American Agricultural Economics Association Meeting, Long Beach, California, July 27-31, 2002.

USDA. "A *Bilateral Free Trade Agreement with Morocco: Potential Impacts on U.S. Agriculture*," Inter-agency report submitted to under Secretary J.B. Penn, December 2002. (Elbehri, Aziz -contributed).

#### **Briefings**

Trueblood, Michael A. "*Modeling the Impact of a Free Trade Agreement Between the United States and the Southern Africa Customs Union*." Internal analysis for U.S. Dept. of Agriculture, April, 2003.

Gehlhar, Mark. "*Modeling the Impact of a Free Trade Agreement Between the United States and the Australia*." Internal analysis for U.S. Dept. of Agriculture, April, 2003.

Gehlhar, Mark. "*Modeling the Impact of a Free Trade Agreement Between the United States and the Central America*." Internal analysis for U.S. Dept. of Agriculture, April, 2003.

Elbehri, Aziz. "*Modeling the Impact of a Free Trade Agreement Between the United States and Morocco*." Internal analysis for U.S. Dept. of Agriculture, April, 2003.