

Applications of the GTAP Model and Database at the Asian Development Bank (ADB)

At ADB, the GTAP model and database have been used primarily for research work. The utilization of GTAP model and database at ADB to date and future plans are summarized below.

1. The GTAP model has been used in the preparation of ADB's flagship publication, *Asian Development Outlook*.
 - a. In 2006, the model was applied to illustrate the risks and opportunities of bilateralism and identify means to ensure that the rising tide of bilateral free trade agreements leaves, in its wake, building blocks to global trade liberalization, not stumbling blocks.
 - b. In 2008, the model was used to examine impacts of labor migration on developing Asian countries and the potential of expanded intraregional labor migration flows in Asia.
 - c. In 2009, the model was used to simulate the impact of the global financial crisis on developing Asia.
2. The GTAP model has been used for a number of research reports and papers. For example, the model was used for special publications in ADB. For example, the model was used to examine medium-term food supply responses and poverty impacts of high food prices in developing Asia. More recently, the model was used to examine the impacts of fiscal stimulus packages in the largest economies (US, Europe, PRC, and Japan) on trade and real GDP in developing Asian economies. Recent publications making use of the GTAP model and database include:
 - a. ADB. Special Report on Food Prices and Inflation in Developing Asia: Is Poverty Reduction Coming to an End? Manila: Asian Development Bank.
 - b. Zhai, F., and J. Zhuang. 2009. Agricultural Impact of Climate Change: A General Equilibrium Analysis with Special Reference to Southeast Asia. ADBI Working Paper 131. Tokyo: Asian Development Bank Institute.
 - c. Kawai, M., and F. Zhai. 2009. PRC-Latin America Economic Cooperation: Going beyond Resource and Manufacturing Complementarity. ADBI Working Paper 137. Tokyo: Asian Development Bank Institute.
 - d. Zhai, F. 2009 (Ed). *From Growth to Convergence: Asia's Next Two Decades*, Palgrave MacMillan, London.
3. Future plans to utilize the GTAP model and database:
 - a. *Macroeconomics*. ADB will continue to utilize the GTAP model for its key publications, particularly *Asian Development Outlook*. Also, the model is planned for use as part of a proposed technical assistance that aims to provide policy guidelines to help ADB's developing member countries in moving toward rebalanced growth that is inclusive and sustainable. The model will be employed to evaluate medium-term and long-term impacts of the global economic crisis on Asia and to reassess alternative growth strategies.
 - b. *Economics of climate change*. To extend its research program on the economics of climate change, ADB aims to explore climate change-related GTAP model extensions and database. These will be utilized and modified to evaluate climate-

economic policies as well as possible future climate regimes in Asia. More specifically, ADB plans to explicitly link GTAP with climate and impact modules, in order to arrive at an integrated assessment version with complete economy-climate feedback.

4. ADB is also sending three staff members to participate in the Annual Short Course in Global Trade Analysis this year that will be held in Bangkok on 8-14 August. This training is expected to further enhance ADB's capacity to apply the GTASP model and database in research and operations.