



**MIT Joint Program on the Science and Policy of Global Change
Massachusetts Institute of Technology, Cambridge, USA**

<http://globalchange.mit.edu>

GTAP-related activities, 2018

The MIT Joint Program on the Science and Policy of Global Change made extensive use of the GTAP data set for research and analysis conducted in the program over the past year (see the following publication list). GTAP data serves as the principal economic data for the Program's Economic Projection and Policy Analysis (EPPA) Model, a global CGE model of the world economy with details on the energy sector and on emissions of greenhouse gases and other air pollutants. The EPPA model was used for variety of applications.

**2018 AND 2019 PUBLICATIONS BY MIT JOINT PROGRAM USING GTAP (AS OF
MAY 2019)**

Journal Publications:

Morris, J., J. Farrell, H. Kheshgi, H. Thomann, H. Chen, S. Paltsev, and H. Herzog, 2019, "Representing the Costs of Low-Carbon Power Generation in Multi-region Multi-sector Energy-Economic Models," *International Journal of Greenhouse Gas Control* (in press).

Arndt, C., P. Chinowsky, C. Fant, S. Paltsev, C. A. Schlosser, K. Strzepek, F. Tarp, and J. Thurlow, 2019, "Climate Change and Developing Country Growth: The Cases of Malawi, Mozambique and Zambia," *Climatic Change* (in press).

Gurgel, A., S. Paltsev, and G. Breviglieri, 2019, "The Impacts of the Brazilian NDC and their contribution to the Paris Agreement on Climate Change," *Environment and Development Economics* (in press).

Morris, J., S. Paltsev, and A. Ku, 2019, "Impacts of China's emissions trading schemes on deployment of power generation with carbon capture and storage," *Energy Economics* (in press).

Zhang, D., J. Caron, and N. Winchester, 2019, "Sectoral aggregation bias in the accounting of energy and emissions embodied in trade and consumption," *Journal of Industrial Ecology*, 23(2), 402-411.

Morris, J., J. Reilly and H. Chen, 2019, "Advanced Technologies in Energy-Economy Models for Climate Change Assessment," *Energy Economics*, 80, 476-490.

Kat, B., S. Paltsev, and M. Yuan, 2018, "Turkish energy sector development and the Paris Agreement goals: A CGE model assessment," *Energy Policy*, 122, 84-96.

Ledvina, K., N. Winchester, K. Strzepek and J. Reilly, 2018, "New data for representing irrigated agriculture in economy-wide models," *Journal of Global Economic Analysis*, 3(1), 122-155.

Paltsev, S., Y-H. Chen, V. Karplus, P. Kishimoto, J. Reilly, A. Loeschel, K. von Graevenitz, and S. Koesler, 2018, "Reducing CO2 from cars in the European Union," *Transportation*, 45(2), 573-595.

Winchester, N., K. Ledvina, K. Strzepek and J.M. Reilly, 2018, "The Impact of Water Scarcity on Food, Bioenergy and Deforestation," *Australian Journal of Agriculture and Resource Economics*, 59, 1-25.

Monier, E., S. Paltsev, A. Sokolov, Y.-H.H. Chen, X. Gao, Q. Ejaz, E. Couzo, C. Schlosser, S. Dutkiewicz, C. Fant, J. Scott, D. Kicklighter, J. Morris, H. Jacoby, R. Prinn, and M. Haigh, 2018, "Toward a consistent modeling framework to assess multi-sectoral climate impacts," *Nature Communications*, 9, 660.

MIT Reports:

Chen, Y.-H.H., J.M. Reilly and S.Paltsev (2019): Did the shale gas boom reduce US CO2 emissions?. Joint Program Report Series Report 336.
(<http://globalchange.mit.edu/publication/17237>)

Hong, W-H., H-C. Chai, Y-H. H. Chen, J.M. Reilly and S. Paltsev (2019): Implications of Updating the Input-output Database of a Computable General Equilibrium Model on Emissions Mitigation Policy Analyses. Joint Program Report Series Report 334.
(<http://globalchange.mit.edu/publication/17198>)

Paltsev, S., M. Mehling, N. Winchester, J. Morris and K. Ledvina (2018): Pathways to Paris: Latin America. MIT Joint Program Special Report.
(<http://globalchange.mit.edu/publication/17161>)

Paltsev, S., M. Mehling, N. Winchester, J. Morris and K. Ledvina (2018): Pathways to Paris: ASEAN. MIT Joint Program Special Report.
(<http://globalchange.mit.edu/publication/17160>)

Winchester, N. and J.M. Reilly (2018): The economic and emissions benefits of engineered wood products in a low-carbon future. Joint Program Report Series Report 331. (<http://globalchange.mit.edu/publication/17082>)

Winchester, N. and J.M. Reilly (2018): The Economic, Energy and Emissions Impacts of Climate Policy in South Korea. Joint Program Report Series Report 328. (<http://globalchange.mit.edu/publication/16975>)

Singh, A., N. Winchester and V.J. Karplus (2018): Evaluating India's climate targets: the implications of economy-wide and sector specific policies. Joint Program Report Series Report 327. (<http://globalchange.mit.edu/publication/16924>)