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

https://globalchange.mit.edu

GTAP-related activities, 2022

The MIT Joint Program on the Science and Policy of Global Change continues to build its research activities on an extensive use of the GTAP data set (see below a publication list for our 2022-2023 publications that use GTAP). GTAP data serves as the principal economic data for the Program's Economic Projection and Policy Analysis (EPPA) model, a global multi-region multi-sector computable general equilibrium model of the world economy with details on the energy sector and on emissions of greenhouse gases and other air pollutants (https://globalchange.mit.edu/research/research-tools/human-system-model).

2022 AND 2023 PUBLICATIONS BY MIT JOINT PROGRAM USING GTAP (AS OF MAY 2023)

Journal Publications:

Gurgel, A., B. Mignone, J. Morris, H. Kheshgi, M. Mowers, D. Steinberg, H. Herzog, S. Paltsev, 2023, "Variable renewable energy deployment in low-emission scenarios: the role of technology cost and value," *Applied Energy*, 344, 121119.

Morris, J., D. Hone, M. Haigh, A. Sokolov, S. Paltsev, 2023, "Future energy: In search of a scenario reflecting current and future pressures and trends," *Environmental Economics and Policy Studies*, 25, 31-61.

Eastham, S., E. Monier, D. Rothenberg, S. Paltsev, N. Selin, 2023, "Rapid estimation of climate-air quality interactions in integrated assessment using a response surface model," *ACS Environmental Au*, 3, 153-163.

Dimanchev, E. and C. Knittel, 2023, "Designing climate policy mixes: Analytical and energy system modeling approaches," *Energy Economics*, 122, 106697.

Paltsev, S., A. Gurgel, J. Morris, H. Chen, S. Dey, S. Marwah, 2022, "Economic analysis of the hard-to-abate sectors in India," *Energy Economics*, 112, 106149.

Atkinson, W., S. Eastham, H. Chen, J. Morris, S. Paltsev, A. Schlosser, N. Selin, 2022, "A Tool for Air Pollution Scenarios (TAPS v1.0) to enable global, long-term, and flexible study of climate and air quality policies," *Geoscientific Model Development*, 15, 7767–7789.

Chen, Y.-H. Henry, S. Paltsev, A. Gurgel, J. Reilly, J. Morris, 2022, "A multisectoral dynamic model for energy, economic and climate scenario analysis," *Low Carbon Economy*, 13(2), 70-111.

Morris, J., J. Reilly, S. Paltsev, A. Sokolov, K. Cox, 2022, "Representing Socio-Economic Uncertainty in Human System Models," *Earth's Future*, 10, 4, 1-25.

Paltsev, S, A. Ghandi, J. Morris, H. Chen, 2022, "Global electrification of light-duty vehicles: Impacts of economics and climate policy," *Economics of Energy and Environmental Policy*, 11(1), 165-191.

MIT Reports:

Chen, Y.-H.H., S. Paltsev, A. Gurgel, J. Reilly and J. Morris (2022): The MIT EPPA7: A Multisectoral Dynamic Model for Energy, Economic, and Climate Scenario Analysis. MIT Joint Program Report 360. (http://globalchange.mit.edu/publication/17777)

Atkinson, W., S. Eastham, Y.-H.H. Chen, J. Morris, S. Paltsev, A. Schlosser and N. Selin (2022): A Tool for Air Pollution Scenarios (TAPS v1.0) to Facilitate Global, Long-term, and Flexible Study of Climate and Air Quality Policies. MIT Joint Program Report 359. (http://globalchange.mit.edu/publication/17840)

Chen H., E. Ens, O. Gervais, H. Hosseini, C. Johnston, S. Kabaca, M. Molico, S. Paltsev, A. Proulx and A. Toktamyssov (2022): Transition Scenarios for Analyzing Climate-Related Financial Risk. MIT Joint Program Report 356. (http://globalchange.mit.edu/publication/17757)