

# Coase Meets Negishi: A Property Rights Rationale for Welfare Weights in Climate Economics \*

Simon F. Lang<sup>†</sup>     Matthew Kotchen<sup>‡</sup>     Matthew Gordon<sup>§</sup>

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## Abstract

The distributional effects of climate change are at the heart of international climate negotiations. This paper shows how different property rights regimes, ranging from “right to pollute” to “right to no pollution”, rationalize different welfare weights in climate-economic models with heterogeneous regions. Commonly used Negishi weights separate the issues of climate change and global wealth inequality. However, we show that the separation of these issues does not yield a unique Pareto efficient allocation since climate change and climate policies have distributional consequences of their own. As a result, different property rights characterize a set of efficient allocations. In addition to Negishi weights, which implicitly reflect mixed property rights, we define beneficiary pays and polluter pays weights, derived from liability rules consistent with right to pollute and right to no pollution property rights, respectively. These weights correspond to distinct Pareto efficient allocations that differ only in the distribution of the cost burden of climate damages and abatement, and we show how nations’ characteristics shape their preferences for different property rights regimes. Unlike the Negishi solution, the other efficient allocations involve international transfers for abatement and climate damages, providing theoretically grounded definitions for climate mitigation finance and Loss and Damage payments—both widely discussed in international negotiations. We use calibrated simulations to illustrate the distributional implications of different property rights regimes.

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<sup>†</sup>Department of Management, Technology and Economics, ETH Zurich. [simon.lang@mtec.ethz.ch](mailto:simon.lang@mtec.ethz.ch)

<sup>‡</sup>School of the Environment, Yale University. [matthew.kotchen@yale.edu](mailto:matthew.kotchen@yale.edu)

<sup>§</sup>Paris School of Economics. [matthew.gordon@psemail.eu](mailto:matthew.gordon@psemail.eu)