ANDRÉS DE LOERA

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Education **Harvard University**

Ph.D. Economics, 2026 (expected)

M.A. Economics, 2023

B.A. Economics, 2020. Magna Cum Laude, High Honors, Harvard College Scholar, Phi

Betta Kappa

Fields Environmental Economics

Public Economics

References Professor Ed Glaeser Professor Wolfram Schlenker

> eglaeser@harvard.edu wolfram schlenker@hks.harvard.edu

Professor Joe Aldy Professor Charles Taylor joseph aldy@hks.harvard.edu ctaylor@hks.harvard.edu

Fellowships & NMFS-SeaGrant Fellowship in Marine Resource Economics, 2024-2026 Grants

Chae Family Fund for the Economics of Crises, 2022, 2023

Pre-Doctoral Fellowship on Carbon Pricing and Alternative Instruments in the Future of U.S.

Energy and Climate Policy, 2022

Course Head, Natural Resource Economics, Fall 2022 & 2023 **Teaching**

Head Teaching Fellow, The Economics of Climate Change, Spring 2023-2025

Academic Service Organizer, Harvard Workshop in Environmental Economics, 2022-2024

Non-Resident Tutor in Economics, Eliot House, 2022-2026

Job Market Paper Climate Change and the Common-Pool Problem in Fisheries

> How significant is the common-pool problem in global fisheries, and how will climate change reshape it? Most fish populations cross national borders, diluting the incentive for governments to conserve. Climate change will upend the current equilibrium by altering biological productivity and by shifting species' geographic ranges. These range shifts reallocate control across countries, potentially inducing maladaptive overexploitation by "stock-losers" and stronger conservation by "stock-gainers." I use species distribution modeling methods to construct a historical panel that tracks fishery ranges over time and document a strategic response: extraction from a transboundary stock increases as the managing country's share of the fishery declines. I then use my estimates to simulate the consequences of future range shifts under climate change. The behavioral responses to range shift net out to close to zero, but are economically meaningful for individual fisheries: stockgainers increase conservation by 1.7 million tons (2.8%) and stock-losers decrease conservation by 1.5 million tons (3.2%) due to range shift. For the average fishery, this strategic response comprises 29% of the total effect of climate change on the fish stock. Under first-best global cooperation, conservation increases by 89 million tons (79%). Under a more plausible U.S.-Canada agreement, conservation increases by 14% and the behavioral response to climate change is dampened by 66%.

Working Papers

Pay Thy Fisher, Beggar Thy Neighbor? China's Fuel Subsidies in the 21st Century (with Aaron Berman)

Countries facing over-exploitation of domestic waters may find it politically and economically advantageous to offer subsidies as a way of "decongesting" their domestic fisheries. Fuel subsidies, the most significant form of fisheries subsidies, may play such a role if they induce distant water fishing. We characterize the conditions under which fuel subsidies are decongesting and then estimate their empirical effects using a triple-difference design exploiting a change in Chinese subsidy policy. We show that China's fuel subsidy increased fishing in its domestic waters, by suppressing a 1.24% elasticity of domestic fishing with respect to the oil price. Meanwhile, it decreased distant water fishing. We also show that non-Chinese vessels in spatial competition with China decreased their fishing in response to China's subsidies. However, we show that the evolution of China's subsidy policy away from fuel subsidies and towards spatially specific subsidies did promote domestic decongestion: Had China not changed it subsidy policy, vessels in our sample would have fished 39% more in the Chinese EEZ and 33% less outside of it.

Exploring and Mining the Deep Sea

Scientific exploration in remote environments is an underprovided public good. In the case of the deep sea, there is significant interest both in biological exploration and exploitation through commercial mining. Therefore, the institution governing deep-seabed mining in areas beyond national jurisdiction has created a requirement for mining contractors to explore their deep-seabed tracts before applying to mine them. However, this may not entirely resolve the public goods problem because the mining contractor has an incentive to shirk in their exploratory effort to avoid discoveries that could prevent them from mining. I investigate whether the publicly reported exploration data is of lower quality in tracts eligible for mining when explored by the mining contractor, compared to areas that have been protected. I find evidence that mining contractors underreport the taxonomic characteristics of biological samples in their mining area, consistent with this perverse incentive to shirk in exploratory effort.

Mining, Critical Minerals, the Environment, and the Clean-Energy Transition (with Dale Squires and Pedro Madureira)

This paper describes the modern problem of critical mineral supply with respect to the choice between terrestrial and deep-seabed mining. We describe the global utilitarian social planner's optimum and then introduce institutional features that drive a wedge between that optimum and the realized outcome. While the issues facing terrestrial mining are common in many settings, we introduce several unusual features of the management of deep-seabed mining which diverge from the global utilitarian social planner's optimum. Deep-seabed mining in areas beyond national jurisdiction is governed by an international social planner, but its objective function is non-utilitarian. We discuss how some of its legal mandates can be interpreted for economic purposes, such as revenue sharing, and explain how these principles can apply in the cases of other international commons.

Seminars & Conferences

MIT Blueprint Labs Junior Researcher Series, 2025

UC Davis Nature Policy Lab, 2025

Occasional Workshop in Environmental and Resource Economics, 2025

CU Environmental & Resource Economics Workshop, 2025

Global Food+ Symposium, 2025

North American Association of Fisheries Economists, 2025

Eastern Economics Association, 2024

Oxford Workshop on Global Priorities Research, 2022

Research Positions

Research Assistant to Michael Chernew, Harvard Medical School, 2018-2020

Research Intern, The Brookings Institution, Summer 2018

Research Assistant to Emmerich Davies, Harvard Graduate School of Education, 2017-2018

Research Assistant to Jeffrey Hoch, UC Davis, Summer 2017