### Andrés de Loera

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Awards



Littauer Center Placement Director: Jeremy Stein

1805 Cambridge St Placement Director: Gabriel Chodorow-Reich Cambridge MA 02138 Administrative Director: Brenda Piquet

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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

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

Energy and Climate Policy, 2022

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

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

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

**Job Market Paper** Climate Change and Fisheries Exploitation

How significant is the common-pool problem in global fisheries, and how will it be affected by climate change? Many fisheries are not fully contained in a single country's jurisdiction: These transboundary fisheries cross Exclusive Economic Zone (EEZ) borders into other EEZs and/or the internationally shared high seas, creating an international common pool problem. As the ocean warms and acidifies, fishery ranges will shift and change the distribution of fish stocks across national boundaries, which could induce maladaptive overexploitation. I construct a panel of fishery ranges and estimate how fisheries extraction responds to the share of a stock in the given management area. My results show large increases in extraction in response to a decrease in the share of the stock in a managed area, consistent with the theory that controlling a smaller share of the stock reduces incentives for conservation. I simulate the effects of climate change on fisheries extraction using these empirically estimated responses. The effect of climate change is small on average, but heterogeneous—ignoring the behavioral response to range shift would generally misestimate the effect of climate change by a meaningful amount. I also simulate fisheries extraction under globally cooperative management and find very large increases in biomass.

#### **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.

#### **Papers in Progress**

#### **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 characteristic 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

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

**Academic Service** 

Organizer, Harvard Workshop in Environmental Economics, 2022-2024

**Research Grants** 

Chae Family Fund for the Economics of Crises