

2023 MIT Portugal Program Seed Grant Project “Climate Change Adaption in Response to Wildfires” | Final Report for the MIT Portugal Program

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Project Accomplishments and Results

Lisbon Workshop on Climate Change Adaptation

The two-day workshop “Lisbon Workshop on Climate Change Adaptation” was held on May 23-24, 2024, at the Nova School of Business and Economics in Carcavelos (near Lisbon), Portugal. The workshop brought together leading experts on climate change adaptation from American, Portuguese, and other European institutions. The research presentations and scientific exchange were focused on the economic and societal impacts of climate change, particularly concerning adaptation strategies. A detailed program of the workshop is attached.

Research Paper

The project led to the completion of a research paper titled “Wildfire Smoke Causes Out-Migration from California” by Christopher R. Knittel and Benjamin Krebs. The study investigates the causal relationship between wildfire smoke pollution and migration patterns, using IRS tax records from 2006 to 2019. Key findings reveal that increased smoke concentration significantly drives out-migration, with higher-income individuals being more likely to relocate. The estimated costs of smoke-induced migration are comparable to the total wildfire suppression costs, highlighting substantial economic consequences. The paper has been submitted for peer review and is expected to be published in a peer-reviewed journal. A copy is attached. Please **do not** disseminate.

Interactions with Portuguese Collaborators

Collaboration with Portuguese researchers and institutions was a critical component of the project. The primary interactions include:

- Nova School of Business and Economics: Provided logistical and academic support for the Lisbon workshop. Professor Maria A. Cunha-e-Sá played a key role in organizing the event.
- University of Coimbra: Renato Rosa co-organized the event.
- Workshop Participants: Inês Póvoa, a Ph.D. student from the Nova School of Business and Economics presented her work and received valuable feedback from other participants.