

# Department of Environmental Science and Policy Seminar Series

## Climate-compatible food systems across land and water

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DATE: Friday, 1/19/2024 TIME: 10:30 am ROOM: SLAB 103 / RSMAES

Zoom: <https://miami.zoom.us/j/92964807674>



**Abstract:** Food systems are responsible for 1/4 to 1/3 of greenhouse gas emissions and are the leading cause of wild animal habitat disruption on both land and water. Numerous strategies have recently emerged that attempt to reduce food system emissions while improving food security, but they entail contradictory goals and difficult tradeoffs that threaten to exceed climate targets. I will discuss my recent research into tradeoffs entailed by shifting to different methods of livestock production, scaling up aquaculture, and investing in alternative proteins. These tradeoffs include those between greenhouse gas emissions, land use change, fish capture, and even zoonotic disease. As climate ambitions around food systems increase, policymakers and watchdogs will need to rely on data-driven tools to map and summarize tradeoffs and cobenefits. I will conclude by sharing future research plans to formalize how we map future food systems' environmental impacts, with a special emphasis on developing climate-compatible storylines..

**Bio:** Matthew Hayek is an Assistant Professor in Environmental Studies. His scientific research examines the environmental impacts of our food system, with a specific focus on greenhouse gas emissions and land use change. To accomplish this, he makes use of quantitative tools such as statistical modeling and large geospatial data. This research has been used by the New York City government, the UK Climate Change Committee, and multiple universities for estimating the effectiveness of their food policies in meeting emissions reductions goals and achieving cobenefits. Dr. Hayek received his PhD in Environmental Science and Engineering from Harvard University, which was followed by a postdoctoral appointment at the Harvard Law School. He is also an affiliated faculty member in the NYU Center for Data Science and the NYU Wild Animal Welfare Program.

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