

Governing Nutrient Pollution Beyond Farmers

David Kanter¹

¹ Department of Environmental Studies, New York University, New York, NY, USA

E-mail: dk109@nyu.edu

Abstract

This talk will introduce the “Governing Nutrient Pollution Beyond Farmers” project. The project is driven by the following question: is it possible to reduce agricultural nutrient pollution without regulating farmers? This requires a new governance system that goes beyond traditional approaches, focused on agri-food chain actors other than the farmer, from fertilizer producers to multinational retailers. In short, this project plans to develop a series of public and private regulatory strategies targeting non-farm actors that can impact farm-level nutrient management, as well as an evaluation framework to analyze the ex-ante environmental and socioeconomic impacts.

Keywords: Nutrient pollution; agri-food chain; policy innovation

1. Summary

This presentation will outline the outcomes of the inaugural “Governing Nutrient Pollution Beyond Farmers” (GNPBF) workshop, scheduled to take place in March 2020. The aim of the workshop and the broader GNPBF project is to design and evaluate new policy approaches to reduce agricultural nutrient pollution without directly regulating farmers.

2. Problem statement

Much of the policy to address nitrogen and phosphorus pollution focuses on changing farmer behavior. Doing so is extremely difficult because of challenges in monitoring and enforcement, as well as deeper economic and cultural factors that motivate farmer nutrient management decisions (Kanter and Searchinger, 2018). This is evident in countries as diverse as the U.S. and Egypt, where nutrient pollution has continued to increase despite decades of farmer-centered policy, which has failed to increase adoption of nutrient best management practices (Kanter et al. 2019). In short, a more transformative change in agri-food systems governance is necessary to return to safe levels of nutrient pollution.

This leads to the central and novel question that underpins the GNPBF project: How can agricultural nutrient pollution

be reduced without directly regulating farmers? The project addresses this by looking beyond the farm to other actors in the agri-food chain, from consumers to food traders, whose activities can influence how farmers manage nutrients. For example, imposing new design standards on fertilizers produced by the fertilizer industry would give farmers little choice but to use more environmental efficient fertilizer products. And making recycled wastewater more affordable would encourage farmers to seriously consider it as a nutrient source. The aim of the workshop and the broader project is to develop and investigate a number of innovative policy approaches, situate them within a broader governance framework, and provide an evaluation system for policymakers to be able to compare different options. The ultimate goal of this project is to spark movement towards more innovative approaches to addressing agricultural nutrient pollution.

3. Project components

The first plank of this project will investigate and develop a select number of public and private regulatory strategies focused on non-farmer actors, with a focus on their design and implementation and informed by insights into farmer knowledge networks and decision-making. The second plank of the new governance system is a ranking framework to help policymakers choose between different regulatory strategies. This framework would generate environmental, economic,

social and political feasibility scores for each regulatory strategy based on an integrated methodology combining a variety of disciplinary techniques and heterogeneous data to evaluate the socioeconomic and environmental impacts of different policy interventions.

The main outputs of this project are a set of public and private policy templates targeting non-farm actors, which would be made freely available to municipal, state and federal policymakers, NGOs and citizen groups via a website detailing project outcomes. This will ultimately help expand the regulatory toolbox for addressing agricultural nutrient pollution.

References

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