# Nikhil Basayappa

Department of Economics, Columbia University 420 W 118th Street, New York, NY 10027 nikhilbasavappa.github.io nb2993@columbia.edu

Phone: (508) 561-3164 Citizenship: United States

## References

Jack Willis Assistant Professor of Economics Columbia University jw3634@columbia.edu

# Michael Best

Associate Professor of Economics Columbia University mcb2270@columbia.edu

# Suresh Naidu

Professor of Economics Columbia University sn2430@columbia.edu

#### Education

Columbia University, Graduate School of Arts and Sciences Ph.D. Candidate in Economics

**Boston College** 2017

B.A. in Economics and English, Cum Laude

#### Research Interests

Development Economics, Environmental Economics, Agricultural Economics

### Research and Teaching Experience

#### Research Assistantships

Research Assistant to Professor Joseph Stiglitz, Columbia University Research Assistant to Professor Amit Khandelwal, Columbia University 2023-present

Expected June 2026

Spring 2022

### Teaching Assistantships

Teaching Assistant, Perspectives on Economic Studies (PhD) Professors Suresh Naidu and Joseph Stiglitz, Columbia University

Spring 2022, 2023, 2024, 2025

Teaching Assistant, Intermediate Microeconomics (Undergraduate)

Fall 2024

Professor Qi Ge, Columbia University

Teaching Assistant, Principles of Economics (Undergraduate)

Fall 2021, 2022

Professor Prajit Dutta, Columbia University

## Other Work Experience

Massachusetts Institute of Technology, Cambridge, MA Senior Research Support Associate, Department of Economics 2017-2020

MFS Investment Management, Boston, MA

Summer 2016

Summer Intern, Compliance Department

#### Awards

Program for Economic Research (Columbia), Summer Research Program Award (\$8000)

Program for Economic Research (Columbia), Summer Research Program Award (\$4000) 2024
Program for Economic Research (Columbia), Summer Research Program Award, (\$6000) 2025
Center for Development Economics and Policy (Columbia), Research Grant (\$1500) 2024
Wueller Fellowship for Best Teaching Fellow (Winner) Fall 2022
Principles of Economics
Wueller Fellowship for Best Teaching Fellow (Runner Up) Fall 2023
Intermediate Microeconomics

#### Research

# Climate Maladaptation and the Commons: Groundwater Management in India (Job Market Paper)

with Ricardo Pommer Muñoz

Upcoming at APPAM Fall Research Conference (2025)

Abstract: India is the world's largest groundwater user, with 90% used for agriculture. However, groundwater depletion represents a classic tragedy of the commons, threatening agricultural sustainability. We develop a tractable model to show how a popular policy intervention — subsidizing efficient irrigation technology — can exacerbate distortions away from socially optimal groundwater extraction when extraction externalities are severe. To test the model's key predictions, we leverage physical variation in the extent of extraction externalities and a multi-state groundwater management scheme that subsidized irrigation efficiency upgrades. We find that the impact of the policy depends on the severity of extraction externalities: extraction falls by 9.2% in low-externality areas but rises by 11.0% in high-externality areas. Low-externality farmers maintain cropping intensity with less groundwater input, while high-externality farmers crop same land more intensively. Finally, we find divergent effects on climate resilience: low-externality farmers extract less when rainfall is normal and extract more during droughts, while high-externality farmers do the opposite. Our findings illustrate that the same common pool conditions that justify an intervention also determine its impact.

# Mobility, Climate Shocks, and Demand for Information: Evidence from India with Ricardo Pommer Muñoz

Presented at NetMob Conference, World Bank (2024)

Abstract: Weather shocks pose severe risks to agricultural communities in India. Information on how to mitigate their effects, however, can be difficult to access, as it spreads slowly through potentially sparse and distant social networks. Using novel cellphone mobility data merged with over 1.5 million calls to India's national agricultural helpline, we document three patterns. First, mobility in rural India is severely constrained: over 75% of areas exhibit primarily local travel. Second, we examine how mobility and helpline calls correlate with climate shocks—heatwaves and extended droughts. While mobility increases during heatwaves, helpline calls decline. Third, this relationship varies systematically with baseline mobility levels: the negative association between climate shocks and calls is significantly weaker in low-mobility areas across multiple measures of geographic isolation. The heterogeneity is specific to agricultural information requests and concentrated during crop growing seasons.

#### Information Provision and Agricultural Productivity

with Ricardo Pommer Muñoz

Abstract: Information extension services are common in the developing world. However, these

services often "push" information regardless of whether individuals demand it, and whether or not these service improve rural livelihoods is unsettled. We study how information provision through a large agricultural call center in India impacts agricultural productivity. In comparison with other extension services, the call center is a "pull" service – farmers only receive information if they truly demand it. Leveraging a shock to access from the consolidation of the call center to one phone number and variation in cell coverage from cell towers, we find the call center led farmers to sow less land overall but produce more output per unit of area.

# Frictions in Information Diffusion Among Smallholder Farmers

with Raissa Fabregas and Jack Willis

Abstract: Smallholder farmers vary substantially in their agricultural know-how, even within the same village. Do farmers value the information of others and, if so, what prevents its diffusion? We measure knowledge of, and WTP for, such information, and test interventions to encourage its diffusion and identify the corresponding frictions.

# Work in Progress

# Natural Disasters and the Deployment of Public Labor

with Hannah Farkas and Ricardo Pommer Muñoz

Climate Hazards and Demand for Information: Evidence from a Farmer Helpline

# **Policy Writing**

Harnessing the potential of community-driven groundwater management in the Global South: Experiences and recommendations

with Nitin Bassi, Anik Bhaduri, Soorya K K, Ekansha Khanduja, Ricardo Pommer Muñoz, and Yashita Singhi

#### Affiliations and Service

Fellow, Center for Development Economics and Policy (CDEP),	2025-present
Representative, Association of Graduate Economics Students (AGES)	2020 – 2024
Vice President	2021-2022
Co-President	2022-2023
Undergraduate Economics Mentor	2021 - 2023

# Skills

Programming: Stata, R, Python Languages: English (native)