

# Piyush Mehta

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<b>EDUCATION</b>	<b>University of Delaware</b>	2019-present
	<i>PhD Geography</i>	
	<b>Madras School of Economics</b>	2014-16
	<i>M.Sc. Economics with specialization in Environmental Economics</i>	
	<b>M.Sc.Dissertation: Effects of Climate on Economic Production in India</b>	
	<b>Ramjas College, University of Delhi</b>	2011-14
	<i>B.Sc. (Honors) Physics</i>	

**RESEARCH INTERESTS** Human-environment relations, Sustainable Agriculture, Food Security, Nutrition, Land Use Change

**RESEARCH EXPERIENCE** **Research Associate, Indian School of Business** Oct, 2016–July, 2019  
Bharti Institute of Public Policy Advisor: Dr. Ashwini Chhatre

**RESEARCH PROJECTS** **Impact of Plantation/Afforestation on the rights of local communities (on forest and non-forest land) and community institutions in India.**

The project was managed in the context of the enactment of Compensatory Afforestation Fund Act, 2016. The objective was to produce actionable evidence for the effective use of Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds in ways that accomplish multiple social and environmental objectives.

- Acquiring, reconciling, processing and visualizing national dataset of plantations from e-Green Watch portal of the Government of India, an online platform monitoring various afforestation projects being carried out using CAMPA funds. Extensively employed Python and PyQGIS for scraping and spatial analysis.
- Used Google Earth Engine (GEE) to calculate Gross Primary Productivity and Vegetation Continuous Fields (VCF) for the polygons.
- To look at the success rate of these plantations, created a visualization app in GEE to examine the difference in VCF before and after the plantation.  
[https://piyush\\_mehta.users.earthengine.app/view/plantations-vcf](https://piyush_mehta.users.earthengine.app/view/plantations-vcf).

**Upscaling community forest resource rights (CFR) recognition and governance in India**

The International Land and Forest Tenure Facility focuses on securing land and forest rights for indigenous people and local communities. The overall objective of this project is to facilitate recognition of community rights over forests and support community forest governance in India.

- Created the socio-ecological monitoring tool to study the interaction between livelihoods, forests and institutions. <https://enketo.ona.io/x/#fqHr4fzg>
- Created the project monitoring system tool to capture all the stages of CFR claim filing process. <https://enketo.ona.io/x/#p9ri>

**Forest Governance Data Portal** Part of the team that conceptualized the portal which can be used for visualizing spatial and temporal tree cover, population, night light, temperature and rainfall at the district level. It allows users to visualize data spatially both at administrative and political boundary levels. <http://forgov.org/>

**Community Forestry and Livelihood-Wellbeing Tools for International Forestry Resources and Institutions (IFRI)** The tools can be used by people, particularly NGOs and forest officials, to collect data for evaluation and monitoring of forests all over the world.

Created two data collection forms using Ona platform. <https://enketo.ona.io/x/#pUpQ> ; <https://enketo.ona.io/x/#p9GI>

## WORKING PAPERS

### **Do Common-Pool Resources Help Insure Household Food Security from Climate Shocks?**

Patrese Anderson, University of Illinois UC; Nirali Bhakhla, ISB; Ashwini Chhatre, ISB; Kathy Baylis, University of Illinois UC; Piyush Mehta, ISB

This paper attempts to understand the role of CPRs and how access to CPRs affects household food security. Further, we investigate whether CPRs help households ensure food security in the face of climate shocks.

### **Impact of Extreme Weather Events on GDP Growth Rates in India**

Arnab Dutta, University of Southern California; Piyush Mehta, ISB; Ashwini Chhatre, ISB

This paper attempts to look at the predictions by climate experts of wide variation in temperature and rainfall with rising overall temperatures in the coming years to study the adverse economic impact of climate change in the short run. The paper primarily focuses on studying the effect of extreme weather events on GDP growth rates for India from 2002-13.

## PUBLICATIONS

Mehta, P., Basu, S. (2018, March). Spatial and temporal patterns in forest plantations in India.

Chhatre, A., Dutta, A., Mehta, P. (2016, September). Impact of Climatic Conditions on GDP.

## COURSEWORK & WORKSHOPS

**Google Earth Engine Workshop:** The workshop aimed to teach highly practical online tools to collect, analyze, visualize, and publish map data using Google's geospatial tools.

**PyData Conference:** The conference aimed to discuss the applications of Machine learning, AI and Geospatial data.

**Fellow Program in Management (FPM) at ISB:** Econometrics A

**Tools of Research Writing** by Dr. Ashima Sood, Fellow at Centre for Learning and Management Practice at ISB.

## ACADEMIC ACHIEVEMENTS

Recipient of Scholarship by Ramjas College for merit in 2nd and 3rd year of B.Sc.

Recipient of Central Sector Scheme Scholarship by CBSE for merit in Class 12th.

## COMPUTER SKILLS

Python, STATA, R, ArcGIS QGIS, PyQGIS, Google Earth Engine, JavaScript, C++, VBA, XLSForms, L<sup>A</sup>T<sub>E</sub>X

## REFERENCES

**Dr. Kyle F Davis**

Assistant Professor, Department of Geography, University of Delaware

**Dr. Ashwini Chhatre**

Associate Professor, Bharti Institute of Public Policy, Indian School of Business

**Dr. Kathy Baylis**

Associate Professor, Agricultural and Consumer Economics, University of Illinois