

Environmental and Development Economics

Week 1 - Introduction

Raahil Madhok
UMN Applied Economics

2024-08-01

Introduce yourself

- ▶ First, lets do introductions
- ▶ Name, year, memorable summer activity, **research interests**
- ▶ Why are you taking this class?

Today

- ▶ Course overview
- ▶ Detailed outline
- ▶ Grade breakdown
- ▶ Course website on github: <https://github.com/rmadhok/enviro-dev-grad>
 - ▶ lecture slides, assignments, syllabus

Course Overview

Course Overview: There is no textbook

Instead, I am organizing around **FOUR** key questions:

- ① Why is environmental quality so bad in developing countries?
- ② What are the costs of poor environmental quality in developing countries?
- ③ Why is WTP for environmental quality low in developing countries?
- ④ What are the political economy barriers to environmental protection?

Course Approach

I will:

- ▶ Frame (almost) each topic with some theory
- ▶ Teach applied papers
 - ▶ research design, identification strategy, estimation techniques
- ▶ Emphasize recent JMPs

I will NOT:

- ▶ Teach econometrics
- ▶ Teach coding
- ▶ Teach every topic in environment/development

Course Goals

For students specializing in environment/development:

- ① Show you research frontier
- ② Inspire your thesis/JMP ideas

For other students:

- ③ Advance your training as applied microeconomists
- ④ Show you what makes a top-tier research question

Course Structure

- ▶ This is a brand new class, so I give myself leeway to make changes
- ▶ You have the unique opportunity to determine direction of the course
 - ▶ Think about what topics do and don't interest you
 - ▶ And let me know!
- ▶ Please check the course website regularly for updates

Course Outline and Topics

Week 1: Theory of Environment/Development

- ▶ How to use theory to ask the right questions (lecture 2)

Week 2: The effect of development on the environment

- ▶ air quality, water quality (lecture 3)
- ▶ forests, biodiversity (lecture 4)

Week 3: The effect of the environment on development

- ▶ human capital (lecture 5)
- ▶ firms (lecture 6)

Week 4: WTP for Environmental Quality

- ▶ TBD (lecture 7)
- ▶ TBD (lecture 8)

Week 5: Environmental policy design

- ▶ Spillovers (lecture 9)
- ▶ Pollution markets in developing countries (lecture 10)

Week 6: Political economy of the environment

- ▶ Corruption and weak enforcement (lecture 11)
- ▶ Environmental justice (lecture 12)

Week 7: Research presentations

- ▶ I will provide more details throughout the semester

Grade Breakdown

Broad Breakdown

In-class presentations	10%
Problem Set	20%
Research Proposal	60 %
Participation	10%

In-class presentations (10%)

- ▶ At start of each lecture (from week 2), you will present a paper for 15 minutes
- ▶ Each student reads paper and submits **seven** slides (5% of grade)
 - ▶ motivation, research question, methods, results
 - ▶ 10 mins presentation + 5 mins Q&A (5% of grade)
- ▶ I will select presenter **randomly** with replacement**

** If you are never chosen, your grade is based on slides.

Problem Set (20%)

- ▶ You will replicate an environment/development paper
 - ▶ You will also **extend** the results
- ▶ You will become familiar with coding in publication-quality papers
- ▶ You will use R or Stata

Research Proposal (60%)

Written Proposal	30%
Peer Review	20%
Proposal Presentation	10%

- ▶ You will develop a research proposal for an original idea
 - ▶ You are NOT expected to actually do the analysis
 - ▶ I will provide small deadlines (outline, first draft, etc.) along the way
- ▶ You will peer review each others proposals
- ▶ You will present the proposal at the end of the semester (30 mins)

Participation (10%)

- ▶ I take this seriously
- ▶ Not enough to just show up to class
- ▶ Quality of questions/discussion count

Questions?

Next class

- ▶ Introduce conceptual framework of environment/development economics