Water & Sanitation Planning and Policy in Developing Countries: Course Syllabus

Part I – Introduction (without Manchester class)

Lecture 1 (Jan. 1) – Economic Analysis of Water Supply Projects; Global benefits and Costs of Water and Sanitation Interventions

Readings


Background Readings


Video - Kabuku Water Project Kenya: Sustainability- Productive Uses of Water

**Lecture 2 (Jan. 16) - Understanding Water Supply and Sanitation Investments in the Broader Water Resources Management Context**

**Before class, students should watch ...**

Background Video of Prof. Tony Allan, Kings College London: “Water and food security: some underlying fundamentals and some invisible solutions” [Feb. 4, 2010] – available for students to watch outside of class.

**Class organization**

9:00 – 10:20 am – Lecture  
10:20 – 10:30 am – Break  
10:30 – 10:50 – Student-led discussion of Hall et al. (2014)  

**Readings**


**Background Readings**

Lecture 3 (Jan. 23) – Conducting a Systematic Literature Review (Kristen Downs & Ryan Crook); Guest Lecture (David Fuente)

Class organization
9:00 – 10:30 am – Lecture by Kristen Downs and Ryan Crook
10:30 – 10:40 am – Break
10:40 – 11:45 am – Lecture by David Fuente

Readings on Conducting a Systematic Literature Review


Examples of Literature Reviews


Reading for David Fuente’s Guest Lecture:

EFD discussion paper

Comment [DW1]: Kristen – please add a couple of more examples that are more WASH-related.

Comment [DW2]: Kristen – David provided the citation on Nairobi tariffs and subsidies. I decided NOT put our new Utility Policy paper here.
Part II – Status Quo Water and Sanitation Conditions (What’s going on?)

Lecture 4 (January 30) - Policy Framework; Ancient Instincts

Broadcast from and to Manchester to UNC-CH – Meet in Mayes Center at 9:00 am

Class Organization
- 9:00 – 10:45 am – Lecture
- 10:45 – 10:55 am – Break
- 10:40 – 11:45 am – UNC Class Debate

Class debate No. 1 – Proposition: “The majority of water and sanitation infrastructure in low-income countries is best conceptualized as ‘dead capital’.”


Background Readings


Lecture 5 (Feb. 6) – Flipped Class: Problem Diagnosis: Infrastructure Coverage; Facts about water & sanitation; Water Markets and Water Vending

Broadcast from the University of Manchester beginning at 9:00 am. Meet in Mayes Center.

Before class on Feb. 6, students should watch:

Documentary video: Hans Rosling – Stats that reshape your world view
Video 1.0 – Facts about water
Video 1.1 – Global Water and Sanitation Coverage
Video 1.2 – Infrastructure Coverage: Electricity, Water, Telephone
Video 1.3 – Forecasts of Coverage
Video 1.4 – Conversation with Clarissa Brocklehurst

Documentary: “Where’s the outrage?”
Video 2.1: “Outrage versus Strategy?”
Video 2.2 – Types of Vendors, Vendor Prices
Video 2.3 – Money and water flows in Onitsha, Nigeria
Documentary Video: Water and Sanitation for the Poor: Independent Providers (18 min.)

Students should email questions on the MOOC and documentary videos and readings to Kristen Downs by Wednesday, Feb. 4.

Class organization:
9:00 – 10:30 am – Discussion of student questions about MOOC lectures and videos
10:30 – 10:40 am – Break
10:40 – 11:10 am – Student presentation of Fuente et al. (2014)

Readings:

Infrastructure Coverage:


Water Markets and Water Vending:


Background readings:


Lecture 6 (Feb. 13) – Flipped Class: Corruption; The Supply Side – Technologies and Costs of Improved Water Supply and Sanitation Services

Broadcast to the University of Manchester beginning at 9:00 am. Meet in Mayes Center.

Before class students should watch ...

Video 2.4 – An introduction to corruption
Video 2.5 – Corruption in South Asia

Video 3.0 – The cost of serving households with piped water networks
Video 3.1 – Solution to cost calculation
Video 3.2 – Cost components and more on costs
Video 3.3 – Costs of nonpiped technologies
Video 3.4 – Condominial sewers and desalination
Video 3.5 – Conversation with Don Lauria: Part One
Video 3.6 – Conversation with Don Lauria: Part Two
Documentary: Water Supply and Sanitation in Development 2: Problems & Solutions

Class organization:

9:00 – 10:20 am – Discussion of student questions on MOOC lectures and videos
10:20 – 10:30 am – Break
10:30 – 11:00 am – Student presentation of Fass, 1988, Chapter 4.
11:00 – 11:45 am Teaching Case No. 1: “USAID Mission to Haiti.”

Note: Students should study the teaching case before February 6 and come to class prepared to discuss.

Readings

Corruption


Costs and Technologies


**Background Readings**

Lecture 7 (Feb. 20) – Understanding Household Water and Sanitation Demand

Before class students should watch …

Video 4.1 – Introduction to differences between water demand modeling in industrialized and developing countries
Video 4.2 – Households with piped connections: price and income elasticities
Video 4.3 – Households with water sources outside the home
Video 4.4 – Household demand for drinking water improvements
Video 4.5 – Effect of social norms on household water use
Video 4.6 – Conversation with Marc Jeuland

Documentary Video – Water of Ayole
Documentary Video - Orangi: City of Hope

Class organization:

9:00 – 10:20 am – Discussion of student questions on MOOC lectures and videos
10:20 – 10:30 am – Break
10:30 – 11:00 am – Student Presentation of Katui-Kafui, Mungati et al. (2002). Drawers of Water II: Kenya Country Study.
11:00 – 11:20 am – Student Presentation of DeVoto et al. 2012.
11:00 – 11:45 am – Student Presentation of Pattanayak et al. 2009.

Readings:

Water


Sanitation


**Background Readings**


Lecture 8 (Feb. 28) – Flipped Lecture: Water and Climate Change; Water Development Paths

Lecture Broadcast to the University of Manchester beginning at 9:00 am from Mayes Conference Center.

Before class, students should watch …

Climate change:
Video 5.4 – Climate Change, water, and health
Video 5.5 – Effects of climate change on water utilities
Video 5.6 – Conversation with Clive Agnew
Documentary Video: Sun Come Up
Documentary Video: Cool It

Water Development Paths:
Video 6.0 – Possible solutions to the water development path exercise
Video 6.1 – A Historical development path – UKL London and Manchester, England
Video 6.2 – Changing knowledge, practices, and perceptions
Video 6.3 – Path dependency
Video 6.4 - Changing course
Video 6.5 - Capital intensity: England and Wales
Video 6.6 – Conversation with Marie Hart

Class organization:
9:00 – 10:20 am – Discussion of student questions on MOOC lectures and videos
10:20 – 10:30 am – Break
10:30 – 10:50 am – Student-led discussion of Milly et al. (2008)

Readings

Climate Change


Water Development Paths


Assignment No. 1: Performance Indicators due

Note: end of flipped lectures
Part III – Policy Interventions (What works? What should be done?)

Lecture 9 (March 6) – Better Planning Protocols; Participation, Demand-driven Approaches

Lecture Broadcast to the University of Manchester beginning at 9:00 am from Mayes Conference Center.

Before class, watch …
Documentary Video - Strategic Sanitation Planning: The Kumasi Experience
Conversation with Arif Hasan – Parts 1 and 2

Class Organization
9:00 – 10:20 am – Lecture
10:20 – 10:30 am – Break
10:30 – 11:45 am – Lecture (cont.)

Readings

Participation


Designing Demand-Driven Rural Water Programs


Background readings


Designing Demand-Driven Urban Sanitation Programs

Background Readings


**SPRING BREAK – NO CLASS Friday, MARCH 13, 2015**
Lecture 10 (March 20) – Water Pricing and Tariff Design

Broadcast to the University of Manchester from Mayes Center at 9:00 am

Class organization
9:00 – 10:20 am – Lecture
10:20 – 10:30 am – Break
10:30 – 11:45 am – Lecture (cont.)

Readings

Water tariff design


Background readings


Lecture 11 (March 27) – Providing NonPrice Information – Community-Led Sanitation; Health Information

No broadcast to the University of Manchester: meet in McG 1305

Before class, students should watch ...
Documentary UNICEF Videos - Dividing the Mango; Meena’s Three Wishes; I'm Meena
Video: Conversation with Barbara Evans

Class organization
  9:00 – 10:40 am – Lecture
  10:40 – 10:50 am – Break
  10:50 – 11:45 am – Class Debate: Portfolios of the Poor

Class debate No. 2 – Proposition: “The health risks from poor water and sanitation are a relatively small, unimportant part of ‘portfolio’ of risks confronting poor households in low-income countries.”

Reading: Portfolios of the Poor: How the World’s Poor Live on $2 a day, by Daryl Collins, Jonathan Morduch, Stuart Rutherford, and Orlanda Ruthven. (2009). 281 pages

Readings

Community-Led Total Sanitation


Information and social norms treatments


Background Readings


Friday, April 3 – NO CLASS (Good Friday)
**Lecture 12 (April 10) – Targeting Subsidies**

No broadcast to the University of Manchester: meet in McGG 1305

**Class organization**

- 9:00 – 10:40 am – Lecture
- 10:40 – 10:50 am – Break
- 10:50 – 11:45 am – Class Debate: Human Right to Water

**Class debate No. 3 – Proposition:** “The United Nations Declaration establishing a human right to water and sanitation is a big step forward and will result in many more poor households receiving improved WASH services in the future.”

**Debate Readings:**


**Subsidy Readings**


Lecture 13 (April 17) – Changing Institutions: the privatization story; UK experience

Broadcast to and from the University of Manchester: meet in Mayes Center at 9:00 am

Before class, students should watch ...

Video (9:00 am in Rosenau 235) – The World Bank – Public Water, Private Partners (27 min)
Manila water video

Class organization
9:00 – 10:00 am – Lecture (Dale)
10:00 – 10:50 am – Lecture (Duncan)
10:50 – 11:00 am – Break
11:00 – 11:45 am – Teaching Case No. 2

Teaching Case 2: “Regulating Privatized Water Utilities in Manila.” Students should study the case before April 10 and come to class prepared to discuss the case.

Readings


Background Readings


Lecture 14 (April 24) - The UK Privatization and Regulation Story

Broadcast to and from the University of Manchester starting at 9:00 am

Before class, students should watch...
Documentary video - Phnom Penh water

Class organization
9:00 – 10:00 am – Lecture (Dale)
10:00 –10:50 am – Lecture (Duncan)
10:50 –11:00 am – Break
11:00 –11:45 am – Teaching Case No. 3

Teaching Case 3: “Ek Son Chan and the Transformation of the Phnom Penh Water Supply Utility.” Students should study the case before April 24 and come to class prepared to discuss the case. Kristen will facilitate case discussion.

Readings


Background Readings


Assignment No. 2 due– Friday, April 24

Exam: Monday, May 4, 8:00 - 11:00 am

Note: Understanding the link between water and sanitation interventions and health improvements is essential for designing policy intervention in the WASH sector. However, this subject is not discussed in detail in this course. Students are encouraged to do the following background readings if they are not familiar with the causal relationships between improved water and sanitation infrastructure and health outcomes:

Linking improved water and sanitation conditions to health outcomes – Selected Readings


