6-2019

Conference Introduction: Setting the Stage - June 2019

Allen Blackman
Inter-American Development Bank

Sixth Biannual Meeting of the Environment for Development (EfD) Forest Collaborative

University of Manchester
25–26 June 2019

DRAFT AGENDA

Sixth Biannual Meeting of the Environment for Development (EfD) Forest Collaborative
June 25-26, 2018

Arthur Lewis Building
Room June 25: Ground floor G.30/31
Room June 26: Second floor boardroom
The University of Manchester, Oxford Road Manchester, M13 9PL
The University of Manchester Map

MONDAY JUNE 25
PRE-MEETING DINNER
Robinson Room
Crowne Plaza Oxford Road

7:30 Drinks outside Robinson Room
8:15 Dinner

TUESDAY, JUNE 25 (FULL-DAY)
FORESTS AND HUMAN HEALTH INITIATIVE
Arthur Lewis Building: Ground floor G.30/31

9:00 – 10:30: Setting the stage

Allen Blackman and Randy Bluffstone

- Welcome
- Goals
- Agenda
- Brief self-introductions

Johan Oldekop and Matías Piaggio via Skype

- Forests and Human Health Initiative
- Research questions

Ranaivo Rasolofoson

- Brief overview of work done by Taylor Ricketts' lab at University of Vermont, Gund Institute
- Demographic and Health Survey (DHS) data

COFFEE BREAK

11:00 – 12:00: Forests and health work or proposed work by FC members

CHAIR: Allen Blackman

Rodrigo Arriagada

- Impact of protected areas on incidence of infectious diseases

Boscow Okumu and Mary Karumba

- Impact of deforestation on health outcomes and health related productivity losses in Kenya

Alejandro López-Feldman

- Subjective wellbeing and natural protected areas in Mexico

Zenebe Gebreegziabher

- Forests, ecosystems services and human health outcomes

Randy Bluffstone (if time allows)

- Community forestry and mental health in Nepal

12:00 – 12:30: Group discussion

12:30 – 1:30: WORKING LUNCH (will be brought into workshop)

1:30 - 3:30: Toward a research agenda on forests and human health

CO-CHAIRS: Allen Blackman/Randy Bluffstone/Johan Oldekop

- Specific research questions
- Methods and empirical strategy
- Research outputs
- Funding sources

3:30 – 4:00: COFFEE BREAK

4:00 – 5:30: Next steps and target dates

CO-CHAIRS: Allen Blackman/Randy Bluffstone

DINNER AT LOCAL RESTAURANT

WEDNESDAY, JUNE 26 (HALF-DAY)
PRESENTATIONS OF FOREST COLLABORATIVE WORK-IN-PROGRESS
Arthur Lewis Building: second floor boardroom

Timing of each presentation: 7 minutes presentation, 8 minutes Q&A

8:30 – 10:30: First session

CHAIR: Alejandro López-Feldman

1	Subrendhu Pattanayak	Indonesia, forest fires, child height
2	Dambala Gelo	Asset, property rights and forest dependency: Evidence from machine learning analysis
3	Haripriya Gundimeda	Can we use valuation as a tool to help conservation of national park in an urban setting?
4	Shilei Liu	Impact of climate change on wildfire across China, based on plot-level data from national forest inventory
5	Johan Oldekop	Reframing Forest-linked Livelihoods in a Globalized World

10:30 – 11:00: COFFEE BREAK

11:00 – 1:00: Second session

CHAIR: Boscow Okumu

6	Jorge Peters	The charcoal sector in Senegal: A comprehensive value chain analysis
7	Amare Teklay	An empirically-informed agent based modeling of incentivized forest conservation
8	Laura Villalobos	Effects of Water Funds projects on forest loss and water quality in Ecuador and Brazil
9	Jintao Xu	A green revolution in the woods: Assessment of Eucalyptus plantation's potential to supply timber for greener economic growth in China
10	Yuanyuan Yi	Devolution and collective action in forest management: the case of China

12:30 – 1:30: LUNCH (will be brought into workshop)

Goals

- Broad
  - build a collaborative program of research on forests and human health
- Specific
  - define specific research questions
  - identify participants in the initiative
  - design an empirical strategy
  - draft a research plan with specific outputs and timelines
  - think about potential research products and publication outlets
  - discuss possible sources of funding

Myers, S. et al. 2013. Human health impacts of ecosystem alternation. *Proceedings of the National Academy of Sciences* 110(47): 18753-18760

I. Highlights of recent literature

Forest loss has benefits, e.g.,

- Draining swamps reduces mosquito population
- Converting forests to agricultural land uses increases food supply

Forest loss increases exposure to infectious disease

- By improving vector habitat
  - Increased transmission of vector-borne disease including malaria and schistosomiasis
- Less directly
  - Converting forests to agricultural land uses exacerbates surface water pollution, which in turn causes ecological changes downstream that exacerbate malaria transmission
- By altering human-wildlife interactions
  - Human encroachment into wildlife habitat, hunting, consumption
  - E.g., contributed to disease outbreaks (HIV and Ebola)
- By altering 'disease ecology'
  - Changes exposure to infectious disease due to wide range of factors including population dynamics, migration, physiological state, species richness, and relative abundance of different species
  - loss of 'dilution effect' (diversity of vectors implies a mix of effective and ineffective vectors; loss of diversity selects for effective vectors) e.g.,
    - Lyme disease exposure increases as mammalian diversity declines;
    - West Nile exposure increases as avian biodiversity declines due to

Forest loss affects human health through channels other than infectious disease

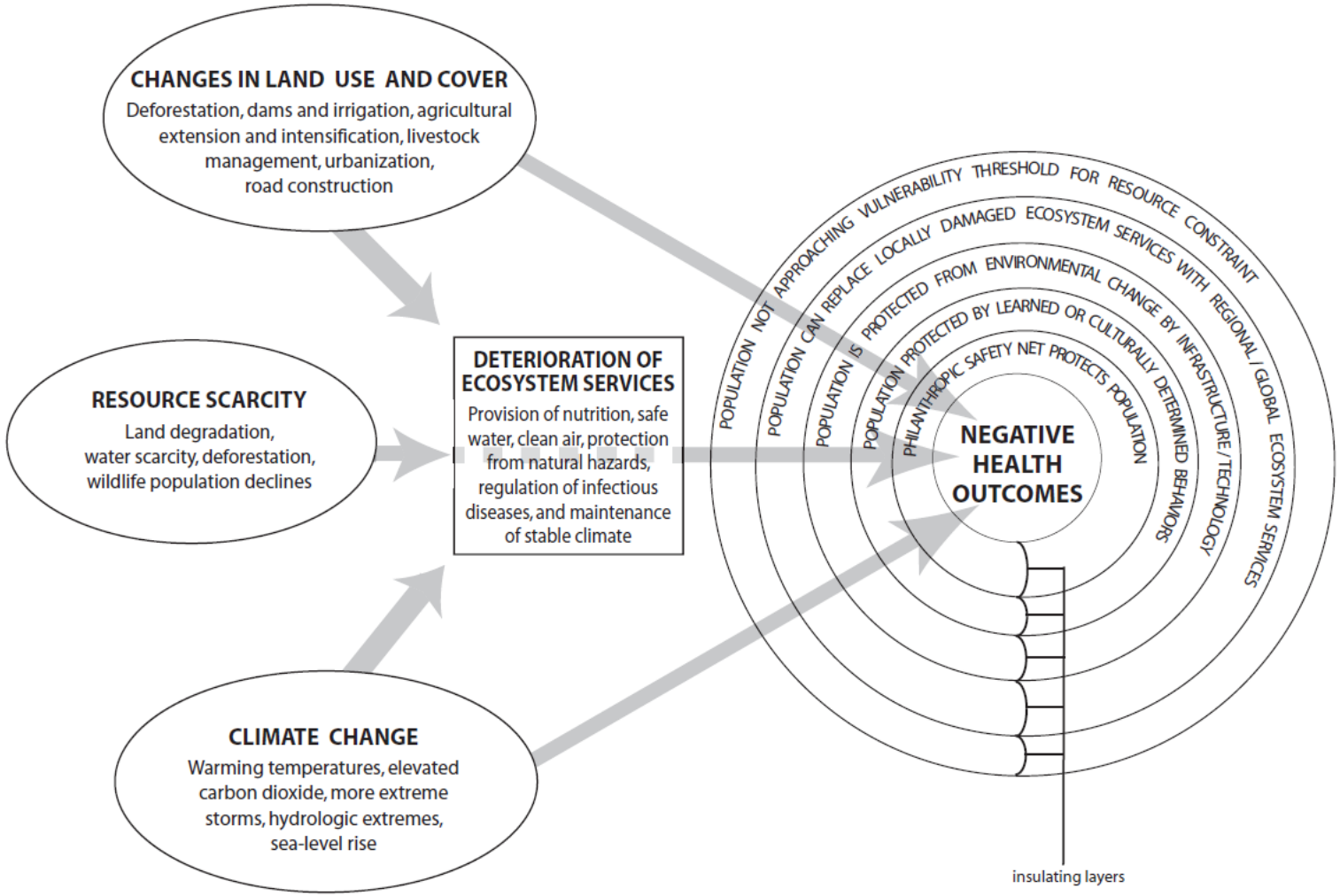
- Destroys ‘green infrastructure’’ that protects humans
  - Mangroves protect against coastal flooding
  - Forests regulate flooding and purify water
- Exacerbates nutritional deficits for disadvantaged people
- Reduces source materials for pharmaceuticals
- Impairs crop pollination
- Increases forest dwellers’ effort involved in gathering biofuel and water
- Has adverse social and psychological impacts
- Exacerbates climate change, which in turn
  - Changes distribution of diseases
  - Increases frequency and severity of natural disasters

II. Limitations of current research

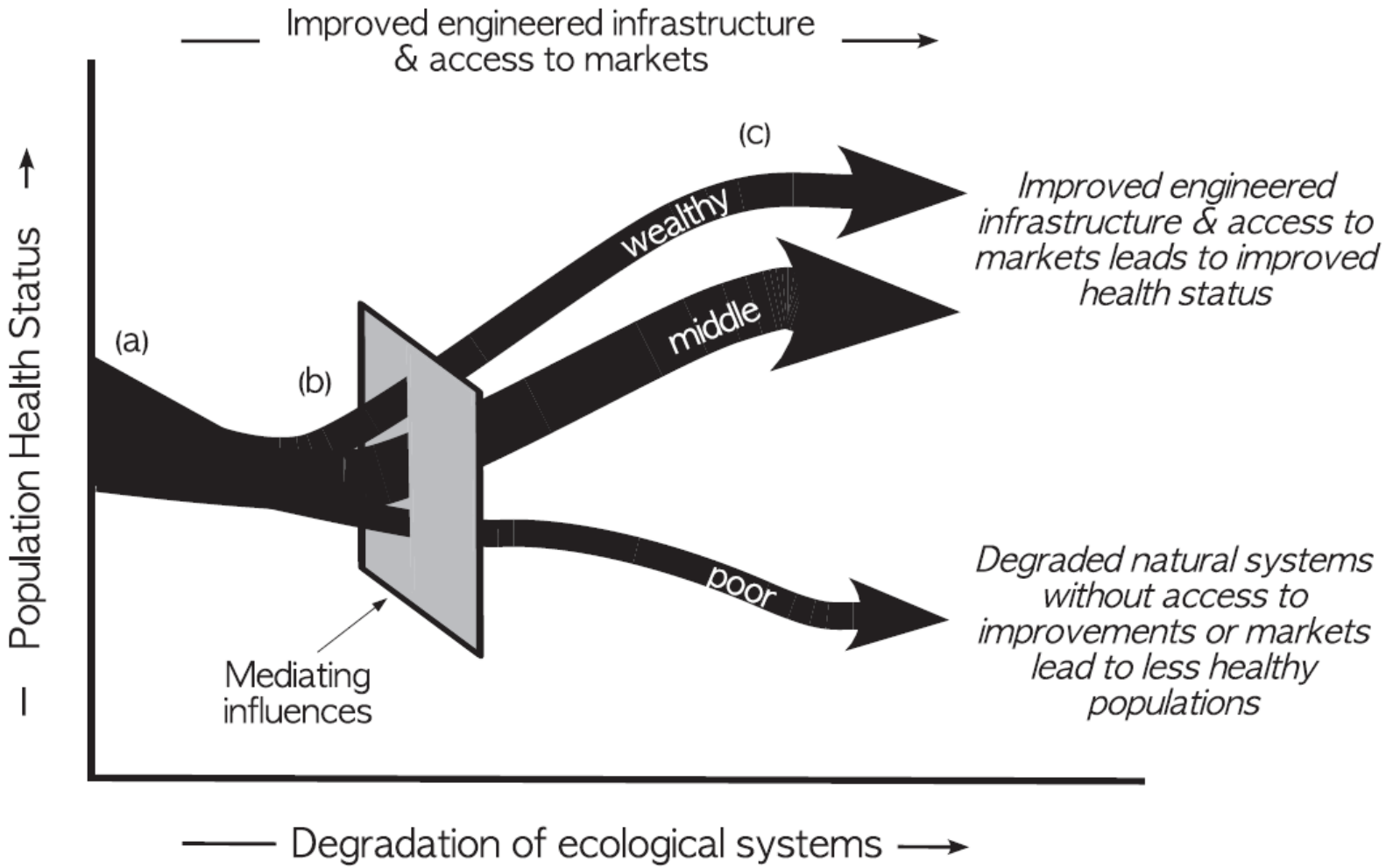
Most studies…

- Focus on a single outcome (e.g., malaria) versus multiple (malaria, dengue, etc.)
- Evaluate a single environmental change (e.g., land use change) instead of multiple (land use change, resource scarcity, climate change)

- Inadequately explore how human adaptations mediate health impacts (e.g., use of bed nets to prevent malaria)



- Do not examine distributional effects: *whose* health is affected (‘environmental risk transition)



III. Suggested directions for future research

Fill the gaps in our knowledge by studying…

- Effects of forest loss on a range of diseases
- Diseases that affect a lot of people
  - Malaria
  - Diarrhea
  - Influenza
  - Schistosomiasis
  - Dengue
  - Chagas
  - Leishmaniasis
- Multiple disease simultaneously
- Effect of forest loss on micronutrients
- Effects on changes in ecosystem services as well as human health

Address limitations in current research by examining…

- Multiple health outcomes
- Effects of multiple interacting environmental changes
- Human responses as mediating factors
- Distributional effects

Respond to specific policy needs versus simply academic curiosity

- E.g., what is the effect of Brazil's forest code on human health