Seminar Course:

URP 3142  Women’s Health and the Environment: Going Up in Smoke

Course instructors
Jerry Anthony, Associate Professor, Urban & Regional Planning
Matthew Hill, Associate Professor, Anthropology
Meena Khandelwal, Associate Professor, Anthropology and Gender, Women & Sexuality Studies
Marc Linderman, Associate Professor, Geography
H.S. Uday Kumar, Professor, Mechanical Engineering

Course objective
This seminar course is designed to provide a comprehensive introduction to the important global problem of people using traditional wood-burning cookstoves (TWCs). Students enrolled in this course would develop a foundational understanding of:

a) The number of households that use TWCs on various continents and the extent of time that TWCs have been a cooking device
b) The effect of TWC usage on the health of women and children in families that use TWCs
c) The effect of TWC usage on deforestation trends in areas with high TWC usage
d) The impact of TWC usage on particulate matter in the atmosphere and on climate change.
e) Successes and failures of past and ongoing efforts to replace TWCs with higher efficiency, less smoke producing cookstoves
f) New technical and policy innovations being formulated to wean people away from TWCs.

Course Description
Cooking with firewood and other biofuels is by many accounts one of the most urgent problems in the world today. The United Nations and Global Alliance for Clean Cookstoves report that about 2.7 billion people in the world depend on TWCs or open fires fueled by biomass. TWCs contribute over 20% of global black carbon emissions. Women and children are disproportionately affected due to their physical proximity to cooking fires. The World Health Organization estimates that more than four million people die annually from indoor air pollution; exposure to TWCs is
the second worst health-risk factor for women and children globally. The increasing scarcity of firewood in many parts of the world (due to deforestation and privatization) combined with respiratory illness caused by cooking with biomass exemplify the ‘slow violence’ that causes immense harm and death but is not dramatic enough to grab the headlines.\textsuperscript{1} And yet, despite the lack of media attention, development professionals and organizations have been researching, designing, and distributing improved cookstoves (ICs) -- identified as efficient, smokeless or clean -- for over four decades. This is a global story, but the narrative is not the same everywhere.

The motivations to replace TWCs with ICs are varied and have shifted over time. The reasons include: improving health, addressing a fuelwood crisis, releasing women from domestic labor, educating girls, stemming climate change. And yet, what has remained constant is an effort to transform the traditional stove, produced entirely from local materials, used by the most economically marginalized women in rural areas of the global south. This focus seems puzzling, given the failure of ICs to be widely-adopted in many countries, despite all the good intentions, research expertise, financial resources and efforts to “diffuse” them. Depending on location, specific stove models, and implementation schemes, ICs have been plagued by problems of faulty installation, improper usage, non-durability and lack of repair services\textsuperscript{2}. Additional reasons for failure are that, in practice, some ICs were neither as fuel-efficient nor as smokeless as advertised, and that villagers’ priorities did not always align with those of stove promoters\textsuperscript{3}. Despite these obstacles, TWCs have remained a consistent site of intervention. They are ‘good to think with’— a window into aspirations and anxieties about development in rural areas. Additionally, gender dynamics may also play a critical role in the adoption of ICs because women and girls are the ones collecting fuel, absorbing the labor of its scarcity, and facing the most direct health impacts of smoke produced by cooking—and it is they who are targeted for social change in IC programs.

\section*{Course requirements}

The course has two main requirements: Attending the 2017 Provosts Global Forum and writing a short paper (1,200 words).

\subsection*{I. The 2017 Provosts Global Forum}

This event will be held at various locations on and near campus from April 12-14, 2017. This Forum will focus on several major dimensions of the cookstove problem: a) the global and local costs, and the environmental and personal harms of continued use of TWCs; b) the historical, social, cultural, symbolic elements of traditional cooking technology; c) the challenges of developing durable, cheap and easy-to-repair ICs, and d) the social, cultural, economic, political and gender dimensions of technology change around cooking - a very personal and intimate aspect of daily life.

The twin goals of the Forum are a) to increase awareness about this global problem on the UI campus and in the broader community across the state of Iowa; and b) to facilitate

\footnote{\textsuperscript{1} Nixon, Rob. 2011. \textit{Slow Violence and the Environmentalism of the Poor}. Harvard University Press, Cambridge}

\footnote{\textsuperscript{2} Kishore, V.V.N. and P.V. Ramana. 2001. Improved Cookstoves in Rural India: How Improved Are They? A critique of the perceived benefits from the National Programme on Improved Chulhas (NPIC). \textit{Energy} 27:47-63.}

conversations among researchers and interested persons on campus with those working on various dimensions of this issue at diverse global locations.

This Forum stems from a growing interdisciplinary faculty interest in the global south at the University of Iowa evidenced by a) efforts to better integrate area studies expertise into the university’s General Education curriculum, b) short-term study abroad courses in developing countries (such as the IndiaWinterim program) which have become increasingly popular, and c) growth in collaborative research on the global south across disciplines that typically exist in isolation.

The Forum is being organized by the instructors of this course. The instructors have taught study abroad courses in India on multiple occasions; they also team-teach a “Big Ideas” course called *People and the Environment* every Fall that attracts 65-80 undergraduate students. They are also currently engaged in primary research in developing ICs, distributing them in a few villages in India and monitoring adoption rates and improvements in air quality in houses that adopt them; their research is supported by internal and external grants.

**The outline of events at the Forum is at the end of this document.**

While students are expected to attend all events at the Provosts Global Forum, the instructors recognize that some of the events at the Forum may conflict with regular class meetings of other courses that students may be enrolled in. In such cases, students should ideally inform the instructors of these conflicts by March 30. Even with the conflicts, to receive course credit students are required to attend at least a) **two of the four feature events** (the Wednesday morning keynote, the Thursday morning keynote, the Friday morning keynote and the Wednesday evening WorldCanvass show) and b) **any two of the four main sessions** (Panel I on Thursday morning, Panel II on Thursday afternoon, Panel III on Friday morning and the writing workshop on Friday afternoon). [If because of schedule conflicts you can attend only half of each of these four sessions, they can be counted as two full sessions].

**II. Short Paper**

Students are required to write a 1,200-word paper (this is commonly about four double-spaced pages in 12-point font). The paper needs to be based on any three of the presentations at the Forum. The presentations must be from at least two different sessions at the Forum. The paper will provide students an opportunity to highlight key points in those presentations and discuss their reactions to those presentations. This paper is an individual assignment. Students must cite all sources that they may have used in writing the paper. The paper must be turned in by 9:00am on Friday, April 28; if submitted after this time, there will be a late submission penalty at the rate of one letter grade per day delay.

**Course grading**

| Participation in the Provosts Global Forum: | 65% |
| Paper on topics covered at the Provosts Global Forum: | 35% |
**Extra Credit Opportunity**

Students can get extra credit (upto 20%) by taking an on-line quiz pertaining to the topics covered at the 2017 Provosts Global Forum. Questions will be drawn from the following readings, all of which are available on ICON. The quiz can be taken anytime between April 10 and April 30.


b) Kalpana Balakrishnan, Aaron Cohen and Kirk Smith. 2014. *Addressing the Burden of Disease Attributable to Air Pollution in India: The Need to Integrate across Household and Ambient Air Pollution Exposures.*


d) Ankita Kankaria, Baridalyne Nongkynrih, Sanjeev Kumar Gupta. 2014. *Indoor Air Pollution in India: Implications on Health and its Control*


**Note:** There are no exams in this course. And no textbooks.

**Other important matters**

a) Students who need any kind of accommodation to participate in this course, should inform the instructors about this need by April 5 and provide supporting documentation.

b) In case of absence(s) due to illness, a doctor’s note must be provided to the instructors.
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<tr>
<th>Time</th>
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<tr>
<td>11:00 – 12:00 pm</td>
<td><strong>Joel Barkan Memorial Lecture</strong>&lt;br&gt;<strong>Gautam Yadama</strong> (assistant vice chancellor for international affairs and dean of Boston College School of Social Work)</td>
<td>Senate Chamber, Old Capitol Museum</td>
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<td>2:30 – 4:30 pm</td>
<td>Cookstove demonstration</td>
<td>Anne Cleary Walkway</td>
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<td>6:30 – 7:30 pm</td>
<td>WorldCanvass catered, pre-show reception</td>
<td>Voxman School of Music, 2nd floor lobby</td>
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<td>7:30-9:00 pm</td>
<td>WorldCanvass: Women’s Health and the Environment: Going Up in Smoke&lt;br&gt;&lt;br&gt;<strong>Part 1</strong> (7:30-8:00) Cookstoves and the environment&lt;br&gt;<strong>HS Udaykumar</strong> (professor, UI College of Engineering)&lt;br&gt;<strong>Sailesh Rao</strong> (president of Climate Healers)&lt;br&gt;<strong>Emma Greimann</strong> (UI student)&lt;br&gt;&lt;br&gt;<strong>Part 2</strong> (8:00-8:30) Health consequences of burning biomass&lt;br&gt;<strong>Paul Greenough</strong> (professor emeritus, UI Department of History)&lt;br&gt;<strong>Peter Thorne</strong> (professor, UI College of Public Health)&lt;br&gt;<strong>Shanea Condon</strong> (UI student)&lt;br&gt;&lt;br&gt;<strong>Part 3</strong> (8:30-9:00) Potential policy solutions&lt;br&gt;<strong>Jerry Anthony</strong> (associate professor, UI School of Urban &amp; Regional Planning)&lt;br&gt;<strong>Madhu Sarin</strong> (president, Vasundhara Executive Committee)&lt;br&gt;<strong>Kathleen O’Reilly</strong> (research scientist, social and environmental impacts of development projects)</td>
<td>Voxman School of Music&lt;br&gt;Recital Hall</td>
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**Thursday, April 13**

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<tr>
<th>Time</th>
<th>Keynote Presentation&lt;br&gt;<strong>Kirk Smith</strong> (professor of global &amp; environmental health, University of California, Berkeley)</th>
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<td>8:30-9:45 am</td>
<td><strong>Panel I</strong>&lt;br&gt;<strong>Carbon, Climate Change and Biomass Use</strong>&lt;br&gt;&lt;br&gt;<strong>Deepti Chatti</strong> (PhD candidate, school of forestry &amp; environmental sciences, Yale University)&lt;br&gt;<strong>Brad Kramer</strong> (assistant professor, earth &amp; environmental sciences, University of Iowa)&lt;br&gt;<strong>Jessica Pouchet</strong> (PhD candidate, department of anthropology, Northwestern University)&lt;br&gt;<strong>Meera Subramanian</strong> (journalist and author, MIT Knight Science Journalism fellow)&lt;br&gt;Moderator: <strong>Uday Kumar</strong> (professor, mechanical engineering, University of Iowa)</td>
<td>Senate Chamber, Old Capitol Museum</td>
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<td>10:00 – 12:45 pm</td>
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<td>Senate Chamber, Old Capitol Museum</td>
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| 2:15 – 5:00 pm | **Panel II**  
*Global Health Effects of Emissions from Biofuels*  
**Kathleen O’Reilly** (associate professor & graduate director, department of geography, Texas A&M University)  
**Sailesh Rao** (executive director, Climate Healers)  
**Peter Thorne** (professor and head, occupational & environmental health, University of Iowa)  
Moderators: **Matt Hill** and **Meena Khandelwal** (associate professors, department of anthropology, University of Iowa)  
*Pappajohn Business Building, Room W151* |
| 7:30 pm      | Screening of film: "What the Health" in collaboration with CAB Films  | *Iowa Memorial Union, Iowa Theater*           |

**Friday, April 14**

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| 8:15 – 9:00 am | **Keynote Presentation**  
**Atul Jain** (professor, department of atmospheric sciences, University of Illinois)  
*Becker Communication Studies Building, Room 101* |
| 9:00 – 12:30 pm | **Panel III**  
*Policy and Fuel Use in Developing Countries*  
**Pam Jagger** (associate professor, public policy, University of North Carolina at Chapel Hill)  
**Rajendra Prasad** (professor, centre for rural development and technology, Indian Institute of Technology, New Delhi)  
**Madhu Sarin** (president, executive committee, Vasundhara Research and Policy Advocacy, India)  
**Jichong Wu** (China program manager, United Nations Foundation, Washington DC)  
Moderator: **Jerry Anthony** (associate professor, urban and regional planning, University of Iowa)  
*Becker Communication Studies Building, Room 101* |
| 12:30 – 12:45 pm | **Concluding Comments**  
*Becker Communication Studies Building, Room 101* |
| 3:00 – 4:30 pm | **Panel Discussion: Writing About Climate Change**  
**Jeff Biggers** (author, journalist & historian, playwright, writer-in-residence at University of Iowa Office of Sustainability, founder of Climate Narrative Project)  
**Connie Mutel** (author, historian and senior science writer, IIHR-Hydroscience & Engineering, University of Iowa)  
**Meera Subramanian** (journalist and author, MIT Knight Science Journalism fellow)  
*Becker Communication Studies Building, Room 101* |

The forum is made possible through the generous support of the **Stanley-UI Foundation Support Organization**.

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