

**Final Progress Report**  
**Sustainability Science Program, Harvard University**  
**Term: September 1, 2009 – August 31, 2010**  
**Submitted: July 2010**

**Name:** Pinar Keskin

**Research fields:**

development economics, environmental economics

**Degree program, institution and graduation date:**

Ph.D. , Economics, Yale University, 2009

**Faculty hosts at harvard name and department:**

Michael Kremer (Department of Economics) and Rohini Pande (HKS)

**SSP-related research activity:**

**Title:** The Gender of Caste: Identity, Political Reservations And Access To Water Resources In Rural India

**Abstract:** In this paper, I analyze the impacts of a centuries-old social institution, the caste system, (directly) on households' access to water resources and (indirectly) on the female time allocation in India. The idea behind this study is quite intuitive, yet this remains an almost entirely unexplored topic: water is believed to be an agent that spreads pollution upon contact with a person who herself is in a state of pollution. Therefore, in many regions of India, the upper caste households insist on maintaining distinct water sources from the lower caste (i.e. Untouchable) households in their villages. Data shows that over 69% of rural Indian households have to collect water for drinking purposes, and those fetching water are predominantly women. Thus, caste discrimination in the access to water resources can create an unequal burden for women of different origins. My empirical findings support this hypothesis: the total time low caste women spend to collect water is significantly higher when they reside in a village dominated by lower castes (in terms of population shares), compared to a village dominated by upper castes. This is due to the congestion of the wells that low-caste members can access, and the results hold true even after controlling for village-level fixed effects. I also document the effect of the reservation of leadership positions in the village administrative bodies, i.e. Panchayati raj, for low caste members: indeed, low caste members are more inclined to invest in water infrastructure in the low caste hamlets, which decreases the time spent at the water source by low caste women. This positive impact tends to be relatively higher in villages where low caste households represent a majority of the population. The analysis also shows that reservations for women in village leadership positions do not have a significant impact on the low caste women's access to the village water resources.

**Identification of the problem the study addresses:**

This project aims at understanding the impact of caste identity on rural Indian households' access to drinking water. It focuses on the intrahousehold implications of the increased burden on adult female members of the family caused by differential access to water. Moreover, the study investigates the effectiveness of reservation policies, in terms of the induced redistribution of public sources toward disadvantaged groups.

**Key question asked about the problem:**

Does caste affiliation determine the access to the public water resources in rural India? Does the identity of the leaders in the village administrative bodies, i.e. Panchayati raj, have an impact on the public good access of low caste households?

**The methods used to answer that question:**

To obtain causally interpretable results, I exploit a natural experiment in local governance in India, i.e. the random assignment of caste quotas across Indian village councils.

**Principle literature upon which the research drew:**

The research draws upon the previous literature on the ethnic-based segregation and the reservation policies for women and other disadvantaged groups in development economics.

**Empirical data acquisition description:**

The data for this study comes from a survey conducted in the Birbhum district in west Bengal between June 2006 and November 2007.

**Geographical region studied:**

West Bengal, India

**Recommendations that might be relevant for the problem:**

The research is still in its preliminary stages to generate widespread policy recommendations. However, the ultimate findings of this line of work will contribute to our general understanding of how to address the intrahousehold distributional implication of ethnicity-, race- or caste-based segregation and limited access of disadvantage groups to the public goods both in developed and developing countries.

**A description of the final product you have/are aiming to produce:**

I am currently working on an initial draft of my paper which will develop into an academic paper (hopefully) publishable in a high-ranked journal.

**Description of major other intellectual or professional advancement activities over the past academic year:**

"The Land Of My Father Dear Unto Me: Gender, Inheritance Rights And Marriage In India", with Daniel Rosenblum, work in progress, May 2010

"Farming The Ogallala Aquifer: Short And Long-Run Impacts Of Unsustainable Water-Use", with Richard Hornbeck, work in progress, May 2010

"Remittances And Rural Inequality In Mexico", with Dawn Teele, mimeo, February 2010

**Principal collaborators outside harvard:**

Lori Beaman (Northwestern), Esther Duflo (MIT), Daniel Rosenblum (Dalhousie), Dawn Teele (Yale)

**List any awards or grants that have been received this year for the current or coming year:**

Wesleyan University project grant on "The Gender Of Caste: Identity, Political Reservations And Access To Water Resources In Rural India", 2010

International Growth Centre grant for field work in Bihar, India on "Strengthening Capacity Of Women Leaders In Rural India", with Lori Beaman, Esther Duflo, and Rohini Pande, 2010

**New position:**

Assistant professor

Department of economics

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