

Exploring Economic Empowerment and Marginalization using Data from Developing Countries

Alexandra Bernasek, Niroj Bhattarai, Brenden Brundage, Ray Miller, Lackson Mudenda, Anh Nguyen, Wisnu Nugroho, Anita Alves Pena, Ashish Sedai, Prasiddha Shakya, and Arisa Thongngam

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- The Poverty Action Center (PAC@REDI) is engaged in several ongoing data analyses to answer questions at the forefront of applied economics globally.
- Our **Nepal** team is examining links between migration and social mobility through the lens of caste/ethnicity and wealth accumulation using micro-data from the World Bank. This research contributes to understanding whether international migration allows marginalized groups to bypass labor market discrimination at home to advance economically.
- Our **Haiti** team is studying the effects of water, sanitation, and hygiene (WASH) on measures of women's empowerment (e.g., economic independence and decision-making) to link to the United Nation's Sustainable Development Goals of clean water and sanitation, good health and well-being, and gender equality.
- Our **Ethiopia** group is examining how water infrastructure and access in Ethiopia influences individual time use disaggregated by gender.

Nepal:

In the context of South-Asian countries like Nepal, gender, caste and ethnicity greatly determine one's socio-economic outcomes, as they have traditionally influenced the type of occupation for which one is "destined or qualified." Although discrimination based on gender and caste is illegal under Nepali law, lingering effects of historic traditions continue to have negative impact on social stratification. One possible way for marginalized individuals to escape labor market discrimination at home and to improve earnings and build wealth is to migrate to a different labor market, free of such cultural constraints (or where these constraints are less stringent). Our initial analysis shows that migration increased every year during the survey period, and international migration, which makes up more than 50% of total migration, generated almost two times the earnings of domestic migration (see Table 1).

Table 1. Migration Earnings (Nepal Rupees) by Destination Wave 1-3 (2016 – 2019)

Migration Status	Earnings (Domestic)	Earnings (International)	Ratio Difference
% of total (average)	44.55%	55.45%	
First Time	9,499.82	20,887.56	2.20
Second Time	10,058.59	74,157.58	7.37
Third Time	13,531.89	62,875.86	4.65

Source: Nepal Household Risk and Vulnerability panel survey Wave 1-3, author calculation

Previous research suggests that many from the marginalized groups seek opportunities in other countries—Muslims and ethnic groups from the hills make up a large share of migrants to the Gulf countries; Dalits are most likely to migrate internally or to India, while those from middle castes and other Janajati groups, higher on the caste ladder are less likely to migrate to India. Despite a growing scholarly publication around migration outcomes, studies addressing impacts on social mobility have been limited. Our ongoing research, which utilizes a three-year (2016 to 2019) Nepal Household Risk and Vulnerability



Survey from the World Bank, will add to our understanding of the impacts of migration on the marginalized, particularly in terms of upward socio-economic mobility in Nepal.

Haiti:

Haiti, given its geography, has suffered from severe climate shocks that impede progress in attaining sustained improvements in people's lives and livelihoods. Using data from the Demographic and Health Surveys for 2005, 2012, and 2016, we construct several measures of women's empowerment that include women's decision-making, attitudes toward violence, and economic independence.

The 2010 earthquake damaged water and infrastructure in Haiti, as did several hurricanes. Establishing water quality in Haiti is particularly challenging because typical measures have been disrupted by these natural disasters. We classify water sources in Haiti into two categories: "improved" and "unimproved" and use regional variation in the impact of the 2010 earthquake to focus on the relationship between WASH indicators and women's empowerment. Our preliminary calculations indicate that the percentage of households with access to improved water sources dropped from almost two-thirds in 2005 to less than half in the post-earthquake surveys in 2012 and 2016.

Table 2: Correlations between Measures of Women's Empowerment and WASH Measures

	Decision-making	Attitudes Toward Violence	Economic Independence
Improved Drinking Water Source	0.0067*	0.0107*	-0.0420
Improved Toilet Facility	0.0218	0.1829*	0.0516*
Time to get Water	-0.0491*	-0.0820*	-0.0033

Note: Definition of "improved toilet facility" includes flush to (septic, don't know, pipe, pit latrine), ventilated improved pit latrine (VIP), pit latrine with slab, composting toilet. *Indicates significance at the 10% level.

In Table 2, we document correlations between WASH variables and indices measuring women's empowerment. We see positive correlations between improved toilet facilities and all measures of women's empowerment, as we would expect. Improved water sources are positively correlated with measures of empowerment related to decision-making and with (negative) attitudes regarding violence against women. Somewhat surprising is the insignificant correlation between improved drinking water and economic independence. Given that women are disproportionately responsible for water collection, we would expect that a longer time to get water to have a negative impact on women (a pattern confirmed in the table), but also improvements in economic independence. Our ongoing research is focusing on a more precise statistical estimation of the effects of WASH variables on these empowerment measures, while controlling for demographic variables and for time to further explain this relationship.

Ethiopia:

Our Ethiopia group has started examining determinants of water sources in Ethiopia at the household level and is looking at how water structure (e.g., access to piped water) influences individual outcomes such as agricultural and nonagricultural employment and other aspects of time use using the Ethiopian Socioeconomic Survey. We are exploiting variation in water availability/access over time and are especially interested in identifying any gender and/or urban-rural differentials. This early work-in-progress links to PAC@REDI's ongoing association with the Seattle-based international NGO Splash, which is currently working to improve water resources in Ethiopian schools among other projects (<https://splash.org/>).

PAC@REDI is poised to partner locally and internationally. Interested parties should contact Dr. Anita Alves Pena at anita.pena@colostate.edu.