



Examining the Complexities of Urban Water and Sanitation in Latin America

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METHODS AND OBJECTIVES

Using an extensive literature review, I explored two Latin American cities, Lima, Peru and Cochabamba, Bolivia to adhere to the following objectives:

1. Examine strategies used to improve urban water and sanitation for low-income dwellers in Lima, Peru and Cochabamba, Bolivia
2. Understand the role that gender dimension plays in urban water and sanitation projects in Latin America

LIMA, PERU

Through mapping, scenario building and collaboration Lima has created a framework for climate change preparation that can be easily replicated.

- LiWa- Analyzed three climate change scenarios to predict water and population needs for the future
 - Working towards a reality with water and sanitation as a human right
 - Adjustment of Lima's water governance structure
- Chance 2 Sustain- collaborative effort between Lima and 10 other cities to gather and interpret climate and water-related data
 - Maps estimate future water needs based on projected population
 - Maps identify areas of social inequality as a result of water-related hazards, risk areas and climate change impacts

COCHABAMBA, BOLIVIA

Adopting a human-rights approach to water resources, the Bolivian government has continued to address inequalities in water affordability and accessibility.

- Water War of 1999- The privatization of the water supply caused a significant uprising from communities unable to afford price increases up to 200 percent.
 - Working towards a reality with water and sanitation as a human right
 - Creation of the Ministry for Water and the Environment (MMAYA) to oversee water and sanitation service providers
 - NGOs and civic organizations assisted in the adoption of new water laws and changes to the Bolivian constitution



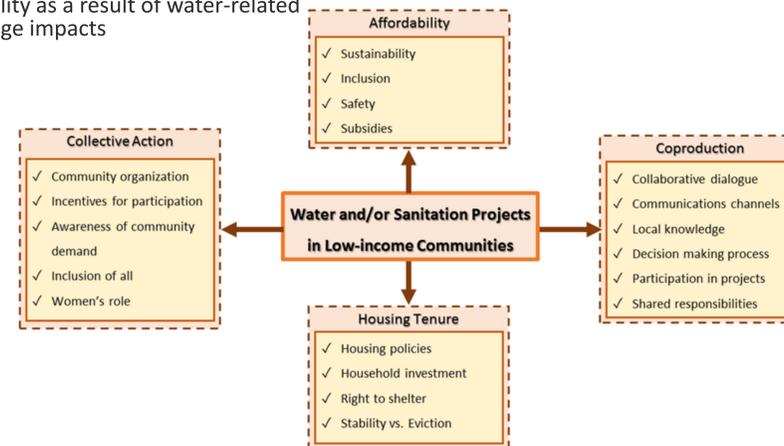
87 percent
of infrastructure costs must be fundraised by low income communities



25 percent
of households are responsible for their own water gathering and management



47 times more
Cost of water for households than industries



ABSTRACT

Climate change continues to exacerbate water and sanitation issues in Latin America, as water scarcity and natural disasters threaten water supply and infrastructure. My research explores the role that gender dimension plays in urban water and sanitation projects in Latin America, and examines strategies used to improve urban water and sanitation for low-income dwellers in Lima, Peru and Cochabamba, Bolivia. Both objectives were accomplished based on an extensive literature review. I argue that gender specific data is vital to collect, in that women face significant disparities in treatment and exclusion from policy. I also examined the sustainable solutions introduced by Lima, Peru and Cochabamba, Bolivia, that address severe water shortages, inadequate facilities and ineffective governance. These case studies were analyzed using Gordon McGranahan's Framework of Challenges describing incentive barriers facing community driven initiatives. This paper exemplifies aspects of lucrative progress from these case studies to identify solutions that can be emulated by other cities. If other cities wish to scale up the findings of my research, some recommendations follow: utilize workshops and collaborative dialogue with citizens who may be affected by projects, collect climate, population and demographic data to observe future trends and finally, prioritize climate change mitigation as soon as possible.

GENDER DIMENSIONS

Urban sanitation issues inherently impact women more prominently than men in Latin American countries, due to established gender roles. Therefore, if policies neglect the consequences of climate change or fail to prevent them, it will impact women disproportionately

- Insufficient and inconvenient water and sanitation access impacts the education and health of women across Latin America. Consequences include excessive physical exertion in the collection of water, insufficient hygiene and exposure to sexual assault.
- LIMA
 - Established a Gender Program to promote women's voices in policy making
- COCHABAMBA
 - Women involved themselves in the water war by collecting donations, providing food and resources to protestors. Their involvement bridged the gap between rural and urban dwellers and formed bonds of solidarity

CONCLUSIONS

In order for cities across the world to prepare for the impacts of climate change on water access and sanitation systems, they must consider emulating the successes of cities like Lima and Cochabamba.

- The creation and maintenance of governmental sectors dedicated to the distribution and access of water and sanitation for all individuals.
- Inclusion of water as a human right in new legislation including local and federal laws.
- Gender specific data and the inclusion of women in policy-making is crucial going forward.
- Empowerment of women to use their skills and resources to allow their voices to be heard.