



MEASURING URBAN SANITATION AND EMPOWERMENT (MUSE)

GOAL | To develop and validate measures to assess women's empowerment related to urban sanitation.

APPLICATION | Production of data to guide programming decisions. Validated tools for future program use.

LOCATIONS | Dakar, Senegal; Kampala, Uganda; Lusaka, Zambia; Narsapur, Tiruchirappalli, and Warangal, India.

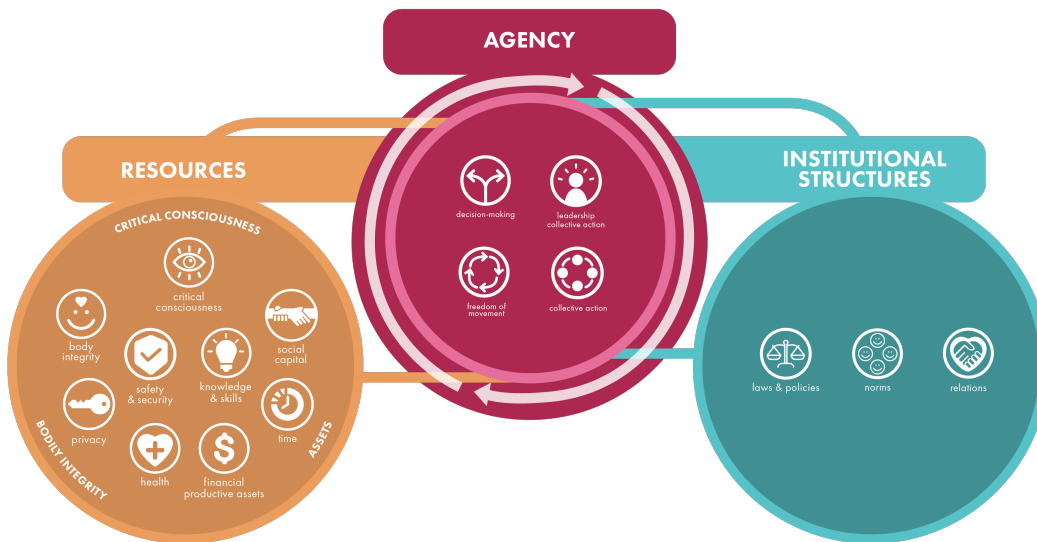
TARGET POPULATION | Women living in urban low- and middle-income country settings.



Figure 1: Countries where Data Collection is Planned

BACKGROUND | Within the Water, Sanitation, and Hygiene (WASH) sector, the role of women and girls in household WASH provision is well documented. However, there are limited data on how and to what extent WASH conditions, interventions, and policies impact women's empowerment, or the extent that women's empowerment impacts WASH conditions. Further, no WASH-specific measures have been validated to assess empowerment.

WOMEN'S AND GIRLS' WATER - AND SANITATION-RELATED EMPOWERMENT



FUNDER

BILL & MELINDA GATES
foundation

RESEARCH TEAM

EMORY | **ROLLINS SCHOOL OF PUBLIC HEALTH**

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Figure 2: Conceptual Model of Empowerment by Van Eerdewijk et al. Used to Guide Measure Development

AIM AND APPROACH

Emory University, with funding from the Bill & Melinda Gates Foundation (BMGF), is creating and validating measures of women’s sanitation-related empowerment, focusing specifically on urban contexts. The project, Measuring Urban Sanitation and Empowerment (MUSE), operationalizes the conceptual model (see Figure 2) and definition of empowerment used by the BMGF and developed by Van Eerdewijk et. al.: The expansion of choice and strengthening of voice through the transformation of power relations, so women and girls have more control over their lives and futures. Included within this concept of empowerment are three domains – agency,

resources, and institutional structures—which feed into and influence each other. Further, each of these domains includes sub-domains, as shown in the model on the preceding page.

APPLICATION

Assessing sanitation-related empowerment broadly, and/or by the domains and sub-domains specifically, will enable stakeholders to understand women’s empowerment related to sanitation and can inform decision-making for programs, initiatives, and policies to make needed changes or improvements.



SCALE DEVELOPMENT PLAN

Scale development involves three distinct phases.

Phase 1: Completed October 2019, involved: identifying domains and sub-domains of empowerment based on the KIT framework and a systematic review; generating survey-style items related to sanitation and each sub-domain of empowerment; testing items with cognitive interviews in Kampala, Uganda and Tiruchirappalli, India and expert review; and refining items and preparing a survey.

Phase 2: Completed February 2020, involved: testing new and modified items using cognitive interviews in Kampala and Tiruchirappalli; identifying target neighborhoods and selecting participants for the survey; conducting the survey with approximately 1,000 women in each city; and conducting statistical analysis

including exploratory and confirmatory factor analysis, item response theory, and reliability testing to further refine the survey. Modifications as a part of Phase 2 are presented in the table below.

Phase 3: During Phase 3, we will deploy the refined tools across 4 additional CWIS cities in India (Narsapur, Warangal), Senegal (Dakar), and Zambia (Lusaka), and conduct a second round of surveys in Kampala and Tiruchirappalli to measure each domain and sub-domain of empowerment. Additionally, 300 men will be surveyed in 2 sites. Data from these cities will provide CWIS partners with information that can guide programming decisions while allowing for additional validation of the survey tool in these new contexts.

SURVEY REFINEMENT DURING MUSE PHASES, BY EMPOWERMENT DOMAIN

DOMAIN	Phase 1	Phase 2	Phase 3
	Total	Total	Total
RESOURCES	236	176	150
INSTITUTIONAL STRUCTURES	80	62	45
AGENCY	114	107	99
TOTAL	430	345	294

OPERATIONALIZED DEFINITIONS OF EMPOWERMENT DOMAINS AND SUBDOMAINS

DOMAIN	SUB-DOMAIN	WORKING OPERATIONALIZED DEFINITION
AGENCY	Decision-Making	Women influencing and making decisions about sanitation inside and outside the home.
	Leadership	Women assume leadership positions, effectively participate, and support women's leadership in informal and formal sanitation initiatives and organizations.
	Collective Action	Women gain solidarity, increase collective efficacy, and take action collectively on sanitation-related issues.
	Freedom of movement	Women's autonomy to move freely to access sanitation facilities, collect water for sanitation-related needs, and/or attend forums on sanitation issues, and women's freedom of movement despite sanitation circumstances.
RESOURCES	Bodily Integrity	Women's control over their bodies and ability to access and use their preferred sanitation location.
	Safety and Security	Women's freedom from acts or threats of violence (physical or sexual), coercion, harassment, or force when accessing and using sanitation locations or engaging in sanitation-related decision-making processes in the public sphere.
	Health	Women's complete physical, mental, and social well-being as affected by sanitation options and conditions; not merely the absence of disease or infirmity.
	Privacy	Women's ability to maintain desired levels of privacy when accessing and utilizing sanitation locations.
	Critical Consciousness	Women identifying and questioning how inequalities in power operate in their lives in relation to sanitation access and decision-making processes, and asserting and affirming their self-efficacy inside and outside of the household as it relates to sanitation.
	Financial/Productive Assets	Women's control over economic resources and long-term stocks of value such as land, for the purposes of meeting individual and household sanitation needs.
	Knowledge and Skills	Women's control over their time and labor spent on sanitation-related tasks and activities.
	Time	Women's knowledge and skills related to sanitation (e.g. operation and maintenance of sanitation facilities) and their abilities to apply those knowledge and skills.
	Social Capital	Women's relations and social networks that provide tangible and intangible value and support, including those that enable them to complete sanitation-related tasks and activities.
INSTITUTIONAL STRUCTURES	Norms	Collectively held expectations and beliefs of how women and men should behave and interact inside and outside the household, specifically with regard to (a) the division of labor, (b) decision-making, (c) leadership, (d) collective action, and (e) mobility.
	Relations	The interactions and relations – including conflicts, support, hostility, and communication – with key actors that shape women's sanitation-related experiences.