

CWIS LEARNING BRIEF SERIES

CWIS | CITYWIDE
INCLUSIVE
SANITATION

IDENTIFYING POOR HOUSEHOLDS & SLUM COMMUNITIES

MAY 2020

#LB2

A typical squatter settlement developed illegally on government or private land in Khulna. This image was taken near the Khulna railway station.

About the Learning Brief Series

Citywide Inclusive Sanitation (CWIS) Learning Brief Series is part of the Bill & Melinda Gates Foundation funded CWIS Monitoring, Learning and Evidence initiative and is meant to facilitate peer learning, and delve into questions of practice, so that practitioners and implementing organizations can learn from one another. This learning initiative covers experiences from 8 cities namely Lusaka, Kampala, Dakar, Khulna, Trichy, Warangal, Narsapur and Wai. Each of these cities have active investments designed to achieve the CWIS goals of equitable, safe, and sustainable sanitation service delivery. The creation of these briefs will be structured as timely, iterative, on-going presentations of examples of learning-by-doing: this will be a space for empirical observation, and applied analysis, not theories or honorifics. Topics may be repeated, but each will build on the previous. The learnings here are meant to provide a seed for discussions across partners in the CWIS network, but also to engage interested actors outside of the network as well. This brief was developed by Athena Infonomics based on inputs and contributions from the Lusaka Water Supply and Sanitation Company (LWSC), Kampala Capital City Authority (KCCA), Office National de l'Assainissement du Sénégal (ONAS), SNV Netherlands Development Organisation (SNV), Center for Water and Sanitation, CRDF, CEPT University (CEPT), Indian Institute for Human Settlements (IIHS) and Administrative Staff College of India (ASCI).

PROGRAM CITY PARTNERS

Bangladesh-Khulna

*SNV Netherlands Development Organisation
(SNV)*

Uganda-Kampala

*Kampala Capital City Authority
(KCCA)*

Zambia-Lusaka

*Lusaka Water Supply and Sanitation Company
(LWSC)*

Senegal-Dakar

*Office National de l'Assainissement du Sénégal
(ONAS)*

India-Narsapur & Warangal

*Administrative Staff College of India
(ASCI)*

India-Trichy

*Indian Institute for Human Settlements
(IIHS)*

India-Wai

*Center for Water and Sanitation, CRDF, CEPT University
(CEPT)*

Objectives of the Brief

Creating or improving sanitation access for poor and marginalized communities in urban areas continues to be a challenge in cities all over the world. In low- and middle-income countries, poor communities are often located in slums, which are marked by either crowded conditions; temporary or semi-permanent housing; lack of access to improved water and sanitation; or a lack of secure tenure (as defined by the UN).¹ These characteristics often reinforce each other: crowded conditions limit the space available to build Individual HH Latrines (IHHLs) or properly empty a containment unit when it is full; a lack of secure tenure creates a disincentive to build or improve an IHHL; water access is needed for washing and flushing after using the latrine. While slums are defined by the UN, the definition of what makes a slum, and what makes a HH poor, varies between countries, states and cities.² In order to design sanitation programs and interventions for the poor, it is crucial to (i) identify poor HHs, and to (ii) understand current access to sanitation services and associated behaviors. This learning brief covers:

1. The approaches used by the 8 CWIS cities to identify poor HHs and slum communities
2. The approaches used to identify target beneficiaries for pro-poor interventions, including data collection for designing pro-poor sanitation interventions, and on-going monitoring of these interventions. (To learn more about the design process, and the interventions themselves, please see Learning Brief #3: Pro-Poor Policies and Interventions)

Local Context

The eight cities included in this brief, the local sanitation authorities, and the local CWIS project partner organizations are listed in Table 1. Each of these locations is part of a larger Citywide Inclusive Sanitation (CWIS) investment network, and all are dedicated to finding innovative ways to improve Fecal Sludge Management (FSM) and expand access to safely managed sanitation, through special initiative and learning from each other. Wai is the smallest city, at a population of only 40k; Dakar is the largest, with 2.8 million in the district (see Table 1 for further information). The Sanitation Service Chain (SSC) is in various states of development across these cities. Sewer access is limited in Kampala, Lusaka, Dakar and Trichy and non-existent in the other cities (see Table 1). Collection and transport is done either by manual emptying, which is usually disposed of nearby, or mechanical emptying, using vacutugs, vacuum trucks or other types of mechanical removal and transport. All eight cities have some form of formal treatment available; fecal sludge treatment capacity has either been recently constructed, or is in some stage of construction (see Table 1).

¹ UN-Habitat, ed. The Millennium Development Goals and Urban Sustainability: 30 Years of Shaping the Habitat Agenda. Reprint. The State of the World's Cities Report 3. London: Earthscan, 2007.

² Nolan, Laura B. "Slum Definitions in Urban India: Implications for the Measurement of Health Inequalities." *Population and Development Review* 41, no. 1 (March 2015): 59–84. <https://doi.org/10.1111/j.1728-4457.2015.00026.x>.

Table 1: Collaborating partners, city size, Treatment Plant (TP) capacity, including both Fecal Sludge Treatment Plants (FSTPs) and Sewage Treatment Plants (STPs), and the percentage of the capacity currently being used.

| City | Local Authority ³ | Local Partner | Population | Slums/ Informal Settlements | Sewer Access (open or closed) | Functional TP Capacity (volume) | Functional TP Capacity (% of full coverage) | TP Usage |
|----------|------------------------------|---------------|------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------------------|----------|
| Wai | WMC | CEPT | 43,000 | 3.74% | 0% | 70 KLD | >100% | 50% |
| Narsapur | NMC | ASCI | 58,901 | 61% | 0% | 15 KLD | 37% | 33% |
| Warangal | GWMC | ASCI | 817,959 | 35% | 0% | 25 KLD | 13.1% | 33% |
| Trichy | TCC | IIHS | 9,16,674 | 10% | 45% | 58 MLD | >100% | 96% |
| Khulna | KCC | SNV | 1.5 mill | 7.86% | 0% | 180 KLD | 9.2% | 4% |
| Kampala | KCCA | KCCA | 1.5 mill | 60% | 8% | 40 MLD | NA | >100% |
| Lusaka | LWSC | LWSC | 2.5 mill | 70% | 16% | 52 MLD | 40% | >100% |
| Dakar | ONAS | ONAS | 2.8 mill | NA | 30% | 21 MLD | NA | >100% |

Socio-economic status (SES) indicators are used in proxy-means testing (see Text Box 1 for definition) in order to approximate the relative wealth – or poverty – for a given household or slum community. There are many such possible indicators; in Table 2 we have listed HH size, ownership status of the home and IHHL coverage for the CWIS cities and their poor populations. We found examples of HH surveys (which engaged in proxy-means testing), transect walks, secondary data (usually in the form of national surveys), GIS mapping studies, government certification, community targeting (such as a water kiosk maintained by the local water and sanitation authority), generalized rules of thumb (covering easily observable indicators, such as the use of temporary housing), and geographic targeting (such as targeting a specific slum). See Text Box 1 for an explanation of key terms.

Text Box 1: Key terms in data collection

Proxy-means testing – information on HH or individual characteristics correlated with welfare levels is used in a formal algorithm to proxy HH income, welfare or need.

Community targeting – communities themselves, or a representative member of the community, are given responsibility for the identification of poor or vulnerable HHs.

Geographic targeting – the locations and boundaries of a slum are identified, and the assumption is made that HHs living there are poor or vulnerable.

³ WMC - Wai Municipal Council; NMC - Narsapur Municipal Corporation; GWMC – Greater Warangal Municipal Corporation; TCC – Trichy City Corporation; KCC – Khulna City Corporation; KCCA – Kampala Capital City Authority; LWSC – Lusaka Water Supply and Sanitation Company; ONAS – Office National de l'Assainissement du Sénégal

Table 2: Socio-Economic Status (SES) indicators in CWIS cities

| | | HH Size (number) | Owns House (%) | Rents House (%) | IHHL Coverage (%) |
|-----------------------------|----------|---------------------|-------------------|--------------------|-------------------|
| Narsapur⁴ | Poor | 3.76 | 65.2% | 33.2% | 77% |
| | Citywide | 3.74 | 91% | 6.5% | 75% |
| Warangal⁵ | Poor | 4.09 | 72.5% | 26% | 84% |
| | Citywide | 4.11 | 63.2% | 35% | 78% |
| Wai | Poor | 4.33 | 82.8% | 15.6% | 44.4% |
| | Citywide | 4.43 | 71.3% | 23.1% | 84.4% |
| Trichy | Poor | 3.99 | 48.2% | 47.6% | 62.8% |
| | Citywide | 3.94 | 51.6% | 46.4% | 83% |
| Lusaka | Poor | 10 | 33.6% | 57.6% | 38% |
| | Citywide | 8 | 33.6% | 57.6% | 52.3% |
| Khulna | Poor | 3.86 | 23.46% | 61.31% | 15.3% |
| | Citywide | 4.2 | 72.59% | 22.9% | 60.6% |
| Kampala | Poor | 5.8 | NA | NA | 0.3% |
| | Citywide | 3.7 | 50.6% | 47.6% | 18.8% |
| Dakar | Poor | 7.6 | 48% | 22% | 71.5% |
| | Citywide | 7 | 47.5% | 45.4% | 99% |

Data sources:

Narsapur City Sanitation Plan (Sampoorna Swachhta Sankalp), 2017; ODF Survey Warangal, 2017; Swachh Survekshan, 2019; SBM IHHL data, CMA 2017; Census of India (2011) Primary census abstract for slum; Census of India, 2011; Living Conditions Monitoring Survey, CSO 2015; GIS mapping of OSS in 3 PUAs, 2018; LWSC,NWASCO information system 2019; Census of slum areas and floating population, 2014; SNV Performance Survey Data, 2019; Population and Housing Census, 2011; KCCA Citywide sanitation mapping, 2016-17; Draft Analytical Report (2014), Improving FSM for Onsite Sanitation in Kampala City, Kampala Capital City Authority; Uganda Bureau of Statistics, 2018:Uganda National Household Survey 2016/17 Report; FSM Final Detailed Analysis, Kampala, Sanitation Mapping Report, 2017, KCCA; Analyse du marché de l'assainissement et établissement du profil des moyens de subsistance des ménages vivant dans les zones inondées et inondables de Pikine et Guédiawaye (OXFAM, 2013); Deuxième enquête de suivi de la pauvreté au Sénégal ESPS II 2011 - Rapport définitif (Mai 2013);

Identifying poor households

When designing sanitation policies and programming for the most marginalized HHs, a more engaged, targeted and tailored approach is necessary. This in turn leads to a great variety of approaches, and thus a rich topic for comparison and learning. We found examples of HH surveys (which engaged in proxy-means testing), transect walks, secondary data (usually in the form of national surveys), GIS mapping studies, government certification, community targeting (such as a water kiosk maintained by the local water and sanitation authority), generalized rules of thumb (covering easily observable indicators, such as the use of temporary housing), and geographic targeting (such as targeting a specific slum). See Text Box 1 for an explanation of key terms.

⁴ Both slum and citywide populations are 2019 projections based on 2017 data. However, the rate of population growth in slums vs. citywide might have been different in reality.

⁵ The higher IHHL coverage in slums, as compared to citywide, might be due to different data sources used for the calculating population. Citywide population is the 2019 projection based on 2011 census data, using CAGR approach; slum population is actual data from the MEPMA survey dated back in 2012.

The first step in creating a pro-poor sanitation intervention is to define who is 'poor.' Living in a slum is not synonymous with being poor: there are always poor HHs living outside the slum, and not all slum HHs are poor. But it is usually the case that most residents in a given slum have comparable levels of access to water and sanitation, have similar status regarding land tenure security (or lack thereof) and experience the same levels of population density, regardless of HH income. Some CWIS grant project partners focused on identifying poor HHs, regardless of whether they were located in a slum. Other partners first defined what is a slum, and then used that definition to prioritize their interventions in the two or three slum communities that suffer the most deprivation according to their definition. A quick summary of the different approaches is illustrated in table 3 below:

Table 3: Summary of data collection scale and frequency, for identification of poor HHs and slum communities

| | Kampala | Lusaka | Wai | Warangal | Narsapur | Trichy | Khulna | Dakar |
|---------------------------------------------------------|----------|------------------|------------------|----------|----------|----------|------------------|------------------|
| Poor/vulnerable are mapped at city scale | Yes | Yes | Yes ⁶ | No | No | No | Yes ⁷ | No ⁸ |
| Program specific or institutionalized /periodic? | Periodic | Program specific | Program specific | Periodic | Periodic | Periodic | Program specific | Program specific |

Table 4: Notified and Non-notified Slums

| | Narsapur | Warangal | Trichy | Wai |
|---------------------|----------|----------|--------|-----|
| Notified | 48 | 91 | 154 | 2 |
| Non-notified | 0 | 92 | 108 | 0 |

Known locations of slums in Narsapur are low lying areas, along canals and the river. In Warangal they are scattered across the city but are mostly found near the riverbed and rocky areas. In Lusaka the slums are in the 'peri-urban areas (PUAs)⁹ of the city, away from the

center. Having known locations can be useful as an additional way of defining a slum. But in Khulna, Kampala and Trichy, slums are simply scattered across the city. In all of the cities, except for Kampala, the slums are geographically defined: in Kampala, they are dynamic and temporary, often moving from place to place. Therefore, in Kampala, it is harder to rely on government data, since it is quickly made obsolete. In the other cities, government data is a useful starting point for defining what constitutes a slum.

The Indian government maintains an official registry of slums, designating them as 'notified' (versus 'non-notified'). There is an official process of slum 'notification', under the Government of India (GoI) guidelines (see Text Box 2 for the slum notification process). This aids in geographic targeting.

⁶ Census baseline was conducted in 2015 to understand the sanitation situation of the city in which basic information, ODF, FSM and an integrated ODF+FSM survey was carried out

⁷ Poverty mapping carried out by LIUPC covered entire city

⁸ In flooded and flood prone areas

⁹ Despite the terminology used, the PUAs in Lusaka are within the city's administrative boundary and part of the city.

Notification allows slum residents to receive subsidies and avail special infrastructure development programs. Slums which are located on government land or private property do not have secure land tenure and do not qualify for notification. Not all slums are notified: in Warangal roughly half are, and in Wai all slums are notified (see Table 4). The Census of India further defines a slum as a compact area of at least 300 people or about 60-70 HHs in poorly built congested tenements, in an unhygienic environment, usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities. As can be seen, the official definition of an Indian slum includes many, but not all, of the traits of the UN definition of a slum: land tenure, for example is not included.¹³

Text Box 2: Slum notification process by the Government of India

Government of India (GoI): Process of Slum Notification

Slums are defined as areas where buildings are in any respect unfit for human habitation by reason of dilapidation, overcrowding, faulty arrangement and design, narrowness or faulty arrangement of streets, lack of ventilation, light, sanitation facilities or any combination of these factors which are detrimental to safety, health and morals (Slum Area Improvement and Clearance Act, 1956). 'Slums' in India is a state subject and notification of slums in India is determined by state-level policies and thus there is considerable heterogeneity in the notification process. Once notified, slums are developed through provision of necessary infrastructure and other amenities, such as food subsidies. Cutoff dates are specified by the state government: in Tamil Nadu, slum HHs who settled prior to 1985 are eligible for notification;¹⁰ in Maharashtra, the cutoff date is 2000;¹¹ while in Andhra Pradesh, any slum settled for more than five years is eligible for notification.¹²

The Narsapur Municipal Corporation (NMC) and the Greater Warangal Municipal Corporation (GWMC) both have an 'S-line' (sanitation line), set up in collaboration with ASCI before the start of the CWIS project, through which residents can call and register complaints about sanitary problems in their neighborhood. This, combined with any central government survey data, was the only method they had for gathering data regarding sanitation issues in slum areas. The S-line is not specifically oriented towards poor HHs. In partnership with ASCI, both NMC and GWMC collected data for more refined pinpointing of where to stage interventions, as well as collect data on how best to design the interventions. This consisted of a 'vulnerability mapping' of all the slums in both cities; this was to be a proxy-means testing exercise, but due to time constraints, data was collected through focus group discussions (FGDs) instead. Based on the FGD observations, ASCI classified all slums as high, medium or low vulnerability, and then carried out HH surveys in the 25 slums that were categorized as being highly vulnerable. This survey included variables covering both socio-economic status (SES) and sanitation needs assessment (see Table 5 for SES indicators; see LB #3 in this series for

¹⁰ Aditi R. No slum notified in Chennai after 1985. [Accessed 4 August 2017]; The Hindu. 2016 Sep 12; Available at: <http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/No-slum-notified-in-Chennai-after-1985-Report/article14634237.ece>

¹¹ Murthy SL. Land security and the challenges of realizing the human right to water and sanitation in the slums of Mumbai, India. *Health and Human Rights Journal*. 2012;14(2):61–73.

¹² Kranthi N, Rao KD. Security of tenure and protection against evictions of slum dwellers: a case of Hyderabad. *Institute of Town Planners India Journal*. 2010;7(2):41–49.

¹³ UN-Habitat, ed. *The Millennium Development Goals and Urban Sustainability: 30 Years of Shaping the Habitat Agenda*. Reprint. *The State of the World's Cities Report 3*. London: Earthscan, 2007.

discussion of sanitation needs assessment methods across all eight cities). GWMC and NMC both plan to make this HH survey an annual exercise, in order to monitor progress in these targeted slums (see Table 6).

The Trichy City Corporation (TCC) collects data on slums related to the Swachh Bharat Mission (SBM) (see Table 6). Working with TCC, IHS implemented a baseline HH survey across all slums in Trichy (see Table 5 for SES indicators used). This baseline allows them to conduct a proxy-means test of vulnerability, and to identify where gaps in sanitation access are located. Complementing the HH survey, they have conducted an observational survey of the facilities and condition of community toilets (CTs) and public toilets (PTs). In 2019, they initiated a survey of sanitation workers, in order to learn more about the SES of these workers, and design interventions focused on them directly. The data on HH, CTs, PTs and sanitation workers will primarily be used to design interventions, although the HH surveys could be used as a baseline for monitoring as well.

CEPT believes that it is better to define HHs as ‘vulnerable’ groups, instead of ‘poor.’ They use the term ‘vulnerable’ instead of ‘poor’ as it allows capturing a broader group of people who lack basic amenities. This definition of vulnerable has been developed from extensive on-the-ground research including multiple conversations with WMC officials. They define vulnerable groups as having monthly expenditures below the poverty line (as defined by the Government of India); not having sufficient space for construction of an IHHL; or being located in inaccessible or crowded areas. There are only two slums in Wai, and they hold only 3% of the population, so identifying priority locations was not an issue. Working with the WMC, CEPT has created a mapping algorithm for vulnerable HHs, CTs and PTs, using data already possessed by the WMC, supplemented by validation from on-the-ground WMC officials and CEPT team member observations (see Table 6). In addition, in 2015, WMC and CEPT implemented a city-wide baseline survey, including questions on SES, sanitation access, HH preferences for sanitation, and the affordability and willingness to pay for sanitation upgrades (SES indicators are listed in Table 5).

The Bangladeshi government has a standard for identifying poor HHs, based on their designated food poverty line and HH expenditures: ‘extreme poor’ HHs have total expenditures equal to the food poverty line, while ‘moderate poor’ HHs have food expenditures equal to the food poverty line. The Livelihood Improvement of the Urban Poor Communication Project (LIUPC), a joint effort between the Bangladeshi government and the UN, defines poor HHs using their own participatory poverty mapping, in which they measure 16 indicators. They conducted a ward level poverty mapping for all of Khulna, and used a weighted sum of those 16 indicators to create an index score and consider the settlements with the lowest scores to be ‘poor.’ SNV considers this poverty mapping as well; in addition, they collect their own HH survey data of asset ownership, material construction of the home and access to public services to conduct their own proxy-means testing, by creating a wealth index. Their wealth index is then used to estimate wealth quartiles, with the lowest quartile being considered as poor (see Table 5). SNV has also conducted transect walks and community mapping studies, in three selected wards, for more detailed assessments. The Khulna City Corporation (KCC) has collaborated in all of these data collection efforts, and SNV has shared a database and findings on identifying poor HHs, sanitation access and sanitation behaviors with the

KCC. But currently there have been challenges regarding staff availability to take on the responsibility of maintaining the database.

In Lusaka, slums are defined as communities of people who engage in informal employment, have limited access to services and live in areas with no city planning. The slums are dense, and the majority of Lusaka's residents live in them. LWSC carried out a rapid assessment at the inception of their pro-poor policies, in order to give a baseline picture of who and where the poor are in Lusaka. In addition, LWSC has personnel which can aid them in community targeting, such as verification agents and attendants at water kiosks, who know the local community and can tell LWSC which HHs are poor (see Table 5). LWSC is conducting a GIS sanitation mapping exercise and to continue to gather information through CBOs, churches and NGOs based in PUAs. It is also developing an integrated monitoring and evaluation (M&E) system for tracking progress in slum areas, for achieving progress on their Vision 2030 plan and towards the global Sanitation Development Goals. This M&E system is currently undergoing testing (see Table 6).

In Kampala, according to the KCCA, the rule of thumb is that poor people live in 'informal settlements' (aka slums), in semi-permanent or temporary structures, without secure land tenure (most of them are renters). Officially, the Pro-Poor Strategy of 2006, issued by the Ministry of Water and Environment, and adopted by the National Water and Sewerage Corporation (NWSC), defines 'poor' HHs by their socio-economic characteristics. To be deemed 'poor' a household should fulfill at least four of the following criteria:

1. Survive on less than 1.3 USD/day and do not own land
2. Live in informal settlements
3. Live in sub-standard and temporary housing structures
4. Do not have private water connections
5. Mainly buy water from vendors and/or get from springs
6. Earn irregular income
7. Population density of 400 persons/hectare (compared to 73 persons/hectare for larger Kampala)

These definitions are in contrast to the Uganda Bureau of Statistics (UBOS), which has defined their own poverty line, based on total monthly HH expenditure, and considers poor HHs as those having total expenditures below that amount. Water for People (WfP), in partnership with the KCCA, has implemented a survey for proxy-means testing using secondary indicators such as asset ownership (radio, TV, mobile phones) and total HH expenditure (see Table 5). In the future, the KCCA team is planning to monitor these indicators, some routinely and some periodically, in order to track sanitation service improvements for poor HHs (see Table 6). Specific resources will have to be identified for collection of data on the periodic indicators, although KCCA intends to use existing government structures to assist in collecting data, such as Health Inspectorate Staff, in order to reduce costs.

In Senegal, OXFAM conducted the first survey mapping of the most vulnerable HHs in Dakar, in a project called the "Programme de Structuration du Marché des Boues de Vidange" (PSMBV, 2012-

2017). This mapping exercise focused on flood risk as the driving determinant of vulnerability; the goal was to find the areas of the city most impacted by floods. A part of the PSMBV was focused on improving sanitation conditions for the most vulnerable HHs in areas of Pikine and Guédiawaye¹⁴, as these were identified as having the highest flood risk. The SES indicators used for proxy-means testing can be found in Table 5; sanitation services data was also collected, including sanitation access, age of Onsite Sanitation System (OSS), and cost of OSS. There are plans to continue the collection of these indicators at a regular frequency, in order to monitor progress.

Definitions of ‘poor’ HHs varied across CWIS cities, both in terms of how ‘poor’ is defined, as well as who defines it. For CWIS grant project partner organizations in Wai, Lusaka and Kampala, national government standards are used in combination with local assessments to identify poor HHs. Local assessments include rules of thumb, known locations, HH survey data or direct relationships with community members.¹⁵ Using rules of thumb, known locations and direct relationships are quick but dirty: they may be imprecise in cities and larger towns. Rules of thumb, such as identification through observation of temporary housing or crowded conditions, can be easily observed on a transect walk, but require generalization based on limited data (only what is visible from the street). For CWIS grant project partners, geographic targeting is subject to the bias of the person identifying slums; although it is unlikely that slums are mis-identified, some might be missed, and the most vulnerable may not always be given the highest priority. Community targeting is subject to the bias of the person to which the project is connected; the individual will give their knowledge of the local community, but this is hard to compare across communities and it may not full capture all households in their community. Proxy-means testing is more objective and comprehensive, but it is also expensive and requires a significant amount of time. Furthermore, it may not be practical if slums are not stationary, as is the case in Kampala. Government data is free and can be more objective, but It also may not be available at the spatial resolution needed, as is the case in Zambia. The choice of which approaches are implemented is not always straightforward, but it is an important choice, as it helps define who will receive a pro-poor intervention, and who will not.

Table 5: Indicators of Socio-Economic Status (SES) used by each CWIS grant project partner

| | Narsapur & Warangal | Trichy | Wai | Khulna |
|------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Data Collection | ASCI | IIHS | CEPT | SNV |
| HH Indicators | Land tenure status Tenant/Owner status of house Average monthly income Literacy rate | Land tenure status Tenant/Owner status of house Payment of property tax Type of housing | Locality type (slum/non-slum) Ownership of the land Tenant/Owner status of house | Asset ownership (TV, refrigerator, vehicle, domestic animal etc.) Employment Income |

¹⁴ These two areas lie outside of the administrative boundary of Dakar City, but are generally considered as within the metropolitan area of Dakar, and within the Dakar Region. A much higher percentage of residents in these two areas rely on non-sewered sanitation than in Dakar City.

¹⁵ By ‘direct relationships’ we mean employees, contractors providing regular services or organizational affiliations with LWSC organization. For example, LWSC has a direct relationship with the water kiosks in the slums.

| | | | | |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>Scheduled Caste Scheduled Tribe Presence of differently abled Presence of third gender Migrant status Occupation Gender of HH head Direct water supply connections Frequency of water supply Storm water drainage Access to IHHLs</p> | <p>material HH size Occupation Monthly HH income HH vehicle ownership Religion, caste and language spoken Sanitation access Containment (for OSS) Desludging services Sewer connection Price of desludging (truck/manual) Health problems in summer/rainy season</p> | <p>Type of house HH size Occupation Monthly HH income Monthly HH expenditure Bank account Sanitation access</p> | <p>Education (School attendance) Housing Land tenure Eviction Land Ownership Occupancy</p> |
| <p>Community Indicators</p> | <p>Incidence of flooding Length of accessible roads Streetlights Healthcare facilities Anganwadis (government pre-schools) Community Based Organization (CBO)</p> | <p>Incidence of flooding Public water points Sewer network CTs (distance, facilities, cost, hours of operation) Solid waste management Frequency storm drain clearance Number/density of slums Slum notification status Age of slums Streetlights Government pre-schools Primary schools Healthcare facilities Community Centre NGOs working in the slum areas Self-help Groups (SHGs) Religious institutions</p> | <p>N/A</p> | <p>Road access Drain access Solid waste services Sanitation access Electricity access Water supply access Presence of street lighting</p> |

| | | | | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| SES Categorization | All indicators are scored either on a binary scale or a three-point scale to determine the vulnerability of the slum | Major religion in the slum Major caste in the slum Major language spoken in the slum | NA | HHs are divided into wealth quintiles based on asset ownership and access to public services |
| | | | | |
| | Dakar | Lusaka | Kampala | |
| Data Collection | OXFAM & H ₂ O Engineering | ZamStats ¹⁶ and LWSC | KCCA and WfP | |
| HH Indicators | Characteristics of the head of HH HH income Poverty profile Subsistence costs HH debt/HH savings Financial investment capacity of HHs Willingness to pay for sanitation Role of women in decision-making Sanitation access Flood risk Water management facilities Source of financing for sanitation | ZamStats: HH size and headship Education Employment and unemployment HH Income HH Expenditure HH Assets Housing conditions Access to facilities Child health and nutrition | WfP: Asset ownership (radio, TV, mobile phones) HH expenditure By KCCA: Property ownership Property type Average population per type Primary & Secondary sanitation facilities Structural condition | |
| Community Indicators | Age of OSS Cost of OSS | ZamStats: Access to piped water Access to tarred road Improved water supply access | KCCA: Sanitation facility shared Road access | |
| SES Categorization | Based on flood risk | LWSC: Community based structures in target areas to identify poor HHs. LWSC has personnel who are placed in communities such as the water kiosk operators | | |

¹⁶ Zambian Government National Survey

Table 6: Institutionalized monitoring efforts by local sanitation authorities regarding access to sanitation among poor HHs, before and after CWIS project initiation.¹⁷

Note: **City Initiatives:** Institutional data collection efforts before initiation of the BMGF project grant. These might have been done in collaboration with project grant partners.

Institutionalized CWIS Initiatives: This targets data collection initiatives targeting or including the poor. They are occurring while the BMGF project continues, but they show some level of incorporation into the standard procedures of the local sanitation authority.

| | Narsapur and Warangal | | Trichy | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives |
| Frequency | On-going | Annual | Annual | Annual |
| Purpose | (i) Indian Central Government Initiatives ¹⁸ (ii) Sanitation Line (S-Line): phone number for lodging residents' sanitation complaints | HH Survey in focus slums: Monitoring sanitation improvements | Indian Central Government Initiatives ¹⁴ | HH Survey in focus slums: Monitoring of sanitation improvements |
| | Khulna | | Wai | |
| | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives |
| Frequency | One-time | Limited | On-going | On-going |
| Purpose | (i) Identification / locating poor HHs (ii) Sanitation assessment for designing pro-poor interventions | [None] | (i) Indian Central Government Initiatives ¹⁴ (ii) Collection of GIS data for indicators of vulnerability (slum locations, BPL card holders) | Analyzing Geo-spatial data and creating vulnerability maps that can be updated periodically |

¹⁷ ONAS was not included as it is in a transitional phase of institutionalizing the results from the PSMBV program (2012-2017, funded by BMGF) in the new national strategy of PNDDAA (2020-2025).

¹⁸ slum notification; property tax mapping; BPL mapping; SBM; National Urban Livelihoods Mission (NULM)

| | Lusaka | | Kampala | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|
| | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives | City Initiatives [Before CWIS Investment] | Institutionalized CWIS Initiatives |
| Frequency | Irregular – every few years | On-going | Every 5 years | On-going |
| Purpose | (i) ZamStats National Living Conditions Survey: Sanitation assessment (ii) Community-based structures: Identification/ locating poor HHs | Integrated M&E system for tracking progress on achieving Vision 2030 and global SDGs. (Now at testing stage) | GIS Unit under the Directorate of Physical Planning: Identification/ locating slums | HH Survey in slums: Monitoring of sanitation improvements |

Conclusion

The sanitation authorities in CWIS cities, and CWIS grant projects used a combination of approaches to identify the HHs or slum communities that they would target with their interventions. These approaches included government certification criteria, such as the notification process for slums in India. They also included their own collections of data, either through transect walks, HH surveys, FGDs, or direct conversations with established connections in the community. These efforts at data collection often served two purposes: identification of beneficiaries and assessment of current sanitation services and behaviors. Understanding services and behaviors was important for designing pro-poor interventions (the focus of Learning Brief 3: Pro-poor policies and interventions).

While definitions for slums, or for what constitutes a ‘poor’ HH, may be different across different jurisdictions, many of the data challenges remain the same. ASCI, CEPT and IIHS all had difficulties associated with data accuracy and the time required to collect data. LWSC reported limitations in available data (data available for only a third of the PUs) making it difficult to identify poor HHs in the entire city. Khulna and Kampala did not report specific challenges associated with data collection.

Some of the outcomes and outputs of the approaches used to identify poor HHs and slum communities have been discussed here, including some of the challenges of data collection. Comparing the costs and relative usefulness of information obtained through each approach is still uncertain and is worth future inquiry. This could be a comparison of methods for identifying poor HHs or slums, through HH surveys versus quicker but possibly more biased community targeting, for example. This would be useful for future efforts at pro-poor interventions in the CWIS cities, as well as other locations.

