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# A REPORT FROM RESEARCH EXAMINING THE RELATIONSHIP BETWEEN SANITATION INEQUALITY & POVERTY IN THE INFORMAL SETTLEMENT OF MJI MPYA, DAR ES SALAAM, TANZANIA

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## Executive summary

The case of the Simplified Sewerage System (SSS) in Mji Mpya, Dar es Salaam, evidences the multidimensional contributions of SSS to the lives of low-income groups:

- The Simplified Sewerage System in Mji Mpya is significantly less costly to each household than the previous system of maintaining a pit latrine. However, the degree of financial benefit varies significantly with the number of people living in a house and the ways that costs are distributed amongst individuals within the house. The installation of SSS has enabled the majority of beneficiaries to reduce household expenditure on health and increased their capacity to save income.
- Residents felt the SSS has contributed significantly to improving the environment by reducing the amount of waste that is disposed of within the settlement. Residents also linked the installation of SSS to health improvements within the settlement, specifically the reduction of epidemics such as cholera. SSS has contributed specifically to the health and dignity of women, children, elderly people, and vulnerable people in the settlement.
- The installation of SSS has also contributed to a reduction in conflict within the settlement that previously resulted from the ways that pit latrines were managed.
- The ongoing maintenance of SSS is characterized by a gendered division of labour; while men largely conduct periodic repair work and purchase maintenance equipment for the SSS, women in the settlement clean the toilets on a regular basis.
- The experience also highlights the importance of community inclusion and participation in the design and delivery of initiatives to improve their settlements. Mji Mpya also evidences the possibilities for integrating SSS with other interventions, such as an anaerobic digester for local energy production, in ways that multiply the impacts of such interventions.

## Recommendations

This research provides insights which can be useful for policy and decision makers to improve the sanitation situation in Mji Mpya and other informal settlements in Tanzania and East Africa:

- SSS projects should prioritise building the capacity of the community to manage the SSS. Community participation and ownership of the SSS in Mji Mpya has been critical for its long term viability. Community organization prior to the installation of SSS as well as small project management committees have been critical for ensuring the long-term sustainability of the SSS. However, the committees have not received sufficient training or lack skills necessary to manage the SSS. Future SSS projects should work closely with organized groups of the urban poor and prioritize training for the long-term management of the SSS.
- There is a great need to ensure SSS users have proper knowledge regarding the toilets in order to avoid blockage and other problems associated with poor usage. Awareness raising and training is also important in order to avoid reluctance to pay the sanitation tariffs within the community.
- Issues of cost recovery must be made clear in line with community members economic capacity. If the tariffs or any other form of payment is affordable to the community members, they will be able to pay and support project
- The loans that were made available to residents to improve their toilets when they connected to the SSS have made an enormous contribution to the accessibility of improved sanitation and to the settlement environment. Further loans should also be made available for houses to connect to a piped water supply in order to ensure that households have access to the water that is necessary for the SSS to function.
- Improved sanitation is a necessary but insufficient condition of poverty reduction. The SSS has brought many positive impacts in Mji Mpya, however the residents in the settlement still face a wide range of daily challenges relating to livelihoods and access to infrastructure such as improved roads near the settlement.

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**Cover image:** View over Vingunguti Settlement, Dar es Salaam. Image: David Heymann, 2019  
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# 1. INTRODUCTION

This report presents an overview of the findings of research that examined the relationship between sanitation, inequality and poverty in Mji Mpya in the city of Dar es Salaam, Tanzania. The research was conducted from June – October 2021 by the Tanzanian Non-Governmental Organization, Center for Community Initiatives (CCI)<sup>1</sup> in collaboration with researchers from Durham University<sup>2</sup> and University College London (UCL)<sup>3</sup> in the United Kingdom. The research was carried out as part of the research programme, Knowledge in Action for Urban Equality (KNOW), funded by the Grand Challenges Research Fund (GCRF) and led by the Bartlett Development Planning Unit, UCL.

## 1.1 Objectives

The objective of the research was to examine the social and economic impacts of the Simplified Sewerage System (SSS) in the informal settlement of Mji Mpya, Dar es Salaam.

## 1.2 Methodology

The researchers conducted quantitative and qualitative data collection in Mji Mpya using a survey, focus group discussions (FGDs), and observation. The survey was conducted by CCI researchers in the settlement. It comprised a questionnaire that focused on demographic and income characteristics of users of the SSS, household dynamics, access to sanitation before and after the installation of SSS, and household water usage. The surveys were administered using ODK mobile offline data collecting software. The survey obtained 104 responses, representing more than a third of the approximately 300 houses currently connected to the SSS.

Following the completion of the survey, six FGDs were conducted with seven to ten residents in each group, organized into the following categories: male landlords; female landlords; male tenants; female tenants; upstream residents (mixed sex and socioeconomic background); downstream residents (mixed sex and socioeconomic background).

The FGDs were conducted in Swahili and translated into English with the questions structured to examine in detail issues that had emerged through the survey: the social and economic impacts of SSS; maintenance of the SSS; and policy implications of the experience of SSS in Mji Mpya. The following report draws on the quantitative and qualitative data gathered through the survey and FGDs, as well as observations by the researchers.



Figure 1.  
Focus group discussion with women in Mji Mpya, Dar es Salaam. Image: CCI, 2021.

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## 2. CONTEXT

### 2.1 Dar es Salaam

Dar es Salaam is the largest urban centre in Tanzania and the main commercial hub. The city comprises five municipalities: *of Ilala, Kinondoni, Kigamboni, Ubungo, and Temeke*. The population growth of the city is among the highest in African cities. Currently, Dar es Salaam has a population of around 6 million people and is estimated to reach 10 million people by 2030; an annual growth rate of 5 percent. Almost 50 percent of this growth is attributed to migration (NBS, 2021).

Dar es Salaam Water Supply and Sanitation Authority (DAWASA) is responsible for water and sanitation services provision, infrastructure development, operations, and management in the city of Dar es Salaam and coastal region. The utility company has a sewerage system that includes 195 km of sewers and eight waste-water stabilization ponds. Currently, waste-water effluents do not meet minimum standards due to overloading of the waste-water stabilization ponds (EWURA, 2019). One of these ponds is located at Mji Mpya.

### 2.2 Ilala District

The Ilala district is administratively known as Ilala City Council and has a total area of 365 km<sup>2</sup> with three divisions, 36 wards, 159 streets, three constituencies and a population estimated to be more than 1.2 million people in the last national census (National Bureau of Statistics, 2012). The Ilala City Council was formerly known as Ilala Municipal Council, formed on 1st February 2000 under the Government Notice (GN) No. 2. In February 2021, the late 5th President of Tanzania, His. Excellence, Dr. John Magufuli upgraded the administrative area from Ilala Municipal Council to Ilala City Council under section 84 of the Local Government (City Authority) Act, Cap. 288 which removed the Dar es Salaam City Council and vested such authority to Ilala.

### 2.3 Mji Mpya

Mji Mpya is an informal settlement in Dar es Salaam. Mji Mpya is found in Mnyamani ward. Mnyamani ward is 1 among 36 wards in the Ilala City Council with 4 streets named Faru, Maruzuku, Mnyamani & Mji Mpya. Mnyamani ward has total households 25,862 and total population of 52,887 people where males are 26,253 and females are 26,634. Mji Mpya has a total population estimated to be 17,000. Until 2016, Mji Mpya had 4,577 households and total population of 16,935 people whereby 8,637 are males and 8,298 are females (Ilala, 2016).

**Map showing the existing toilets connected to the Simplified Sewerage Systems (SSS) in Mji Mpya settlement Dar es Salaam**

#### KEY

-  SSS toilets connected by the CCI
-  SSS toilets connected by Cambridge Development Initiative

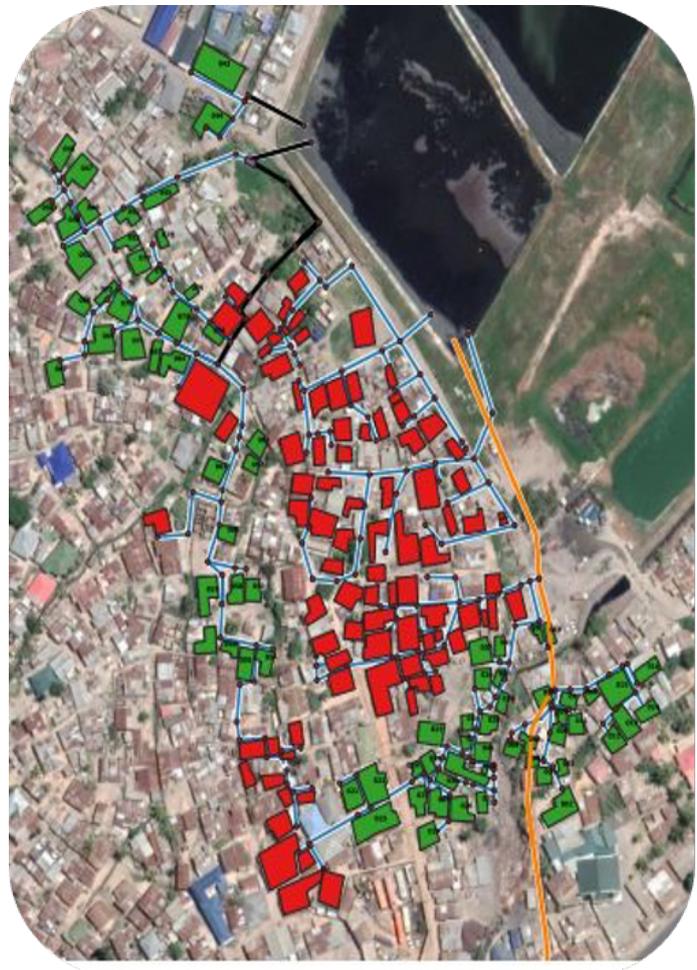


Figure 2. Map showing the existing toilets connected to the SSS at Mji Mpya. Map compiled by CCI, 2021

## 2.4 Sanitation Profile of Mji Miya

Sanitation services in Mji Mpya highly variable. Many residents lack access to affordable improved sanitation due to costs of construction and the high water table. The majority of residents use pit latrine toilets, which have led to poor environmental conditions and health outcomes. One solution that has been developed and implemented by CCI is a Simplified Sewerage System. SSS has been identified as a key approach to pro-poor sanitation infrastructure that enables communities without access

**Simplified Sewerage Systems have been identified as a key approach to pro-poor sanitation infrastructure that enables communities without access to basic sanitation to build and maintain their own sanitation systems**

to basic sanitation to build and maintain their own sanitation systems. Mji Mpiya offers an important example of an established SSS, which enabled this research to examine the medium and longer-term impacts of the intervention.

The SSS in Mji Mpya was installed between 2014-2019. The SSS comprises nine 'routes' through the settlement, which connects to 300 houses. The routes were identified in collaboration with the residents; six were constructed by CCI and a further three were constructed by the UK-based NGO, Cambridge Development Initiative. The SSS is constructed out of PVC Class B pipes, which range from four to six inches (approximately 10-15 cm) in diameter. The pipes are buried in shallow trenches and laid at a gentle decline; some join a septic tank at the bottom of the hill that drains into the sewerage treatment ponds, others discharge into a large sewage pipe.

## 3. RESEARCH OBJECTIVES AND METHODOLOGIES

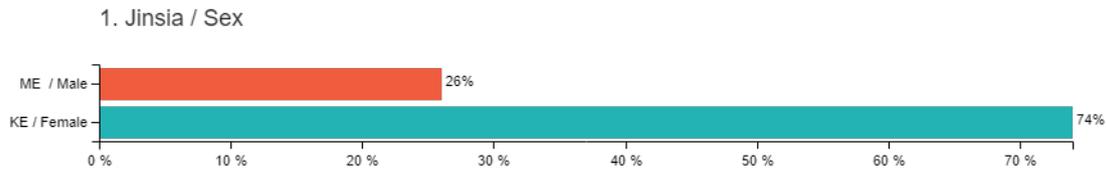
### 3.1 Objectives

The objective of the research was to examine the social and economic impacts of the Simplified Sewerage System (SSS) in the informal settlement of Mji Mpya. The research focused on four issues: the economic impacts of SSS on residents; the social impacts of the SSS on the community; the ongoing maintenance of the SSS; and the ways that policy might support the scaling up of SSS in Mji Mpya and across Dar es Salaam.

The study combined qualitative and quantitative methods of data collection:

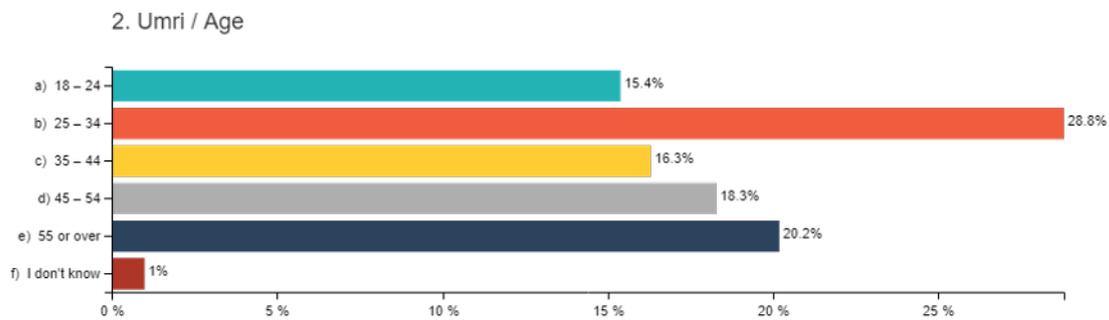
- A survey was conducted by CCI researchers in Mji Mpiya using ODK mobile offline data collecting software. The survey obtained 104 responses, representing just over one third of the approximated 300 houses currently connected to the SSS. The survey collected demographic information, information regarding household dynamics, sanitation costs and water usage. The survey was also used to identify key issues that formed the basis of focus group discussions.
- Building on a preliminary analysis of the survey results, the research team identified six groups of residents that would form the basis of focus group discussions: male landlords; female landlords; male tenants; female tenants; upstream residents (mixed sex and socioeconomic position); downstream residents (mixed sex and socioeconomic position). Each focus group comprised seven to ten residents. The discussions were conducted in Swahili and translated into English.
- Observation: the researchers also observed some of the issues included in this report through the process of conducting the survey and focus group discussions.

## 3.2 Profile graphs of survey respondents



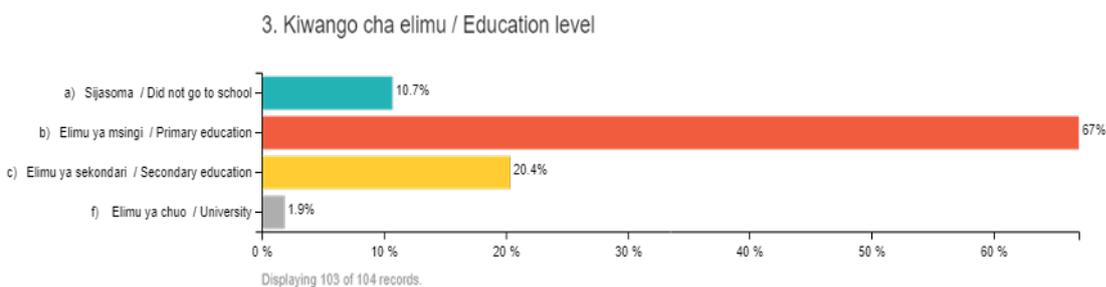
**Graph 1** Sex of survey respondents. *ODK field data (CCI, 2021)*

- 74 percent of the survey respondents (104) were females and 26 percent were males.
- This difference can be accounted for by the time of the survey, which took place during a weekday when men were more likely to be at work outside of the settlement.



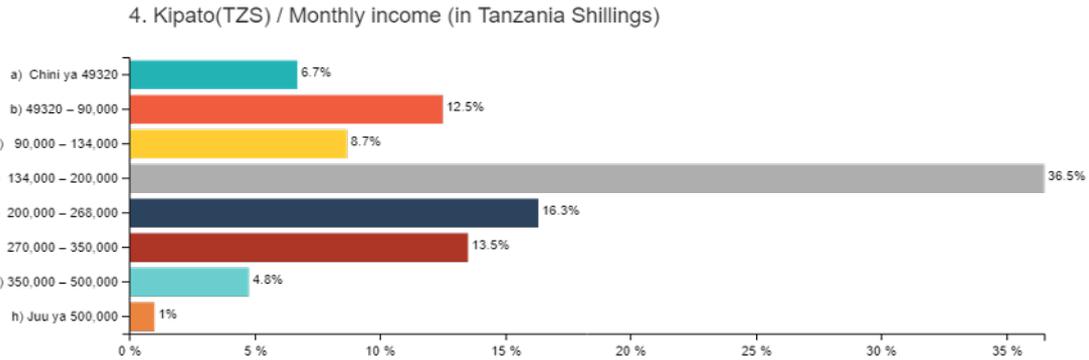
**Graph 2** Age of survey respondents. *ODK field data (CCI, 2021)*

- The survey was conducted with adults of a range of ages.
- The greatest number of respondents (28.8 percent) fell into the category of 25 – 34 years old.



**Graph 3** Education level of survey respondents. *ODK field data (CCI, 2021)*

- The survey found that 67 percent of respondents had up to primary level education.
- More than 10 percent of respondents had not gone to school, while 1.9 percent had a university education.
- This is also a feature of the majority living in the informal settlement.
- Similarly, the FGDs also found that most participants had only primary education.



**Graph 4** Monthly income (in Tanzania Shillings) of survey respondents. *ODK field data (CCI, 2021)*

- The survey found that 7% of respondents fell below Tanzania’s national basic needs poverty line, currently 49320 TZS/month.
- This indicates a lower rate of poverty than in much of Tanzania where the national urban poverty rate in 2018 was 15.8 percent and the national overall rate was 33.1 percent (World Bank Group, 2019: 6).
- However, 28 percent of respondents live below the World Bank’s extreme poverty line (\$1.90 per day; 134 000 TZS per month) and 53 percent of respondents live between the World Bank’s poverty and extreme poverty lines (\$1.90 – \$3.80 per day).
- In other words, only 19 percent of survey respondents are not living in some form of income-based poverty.
- Older resident respondents (55 or over) make up a larger proportion of the poorest groups.



**Figure 3.** Focus Group Discussion with upstream residents in Mji Mpya, Dar es Salaam. The sewerage treatment ponds can be seen in the distance Image: CCI, 2021.

## 4. RESEARCH FINDINGS ON THE IMPACTS OF THE RELATIONSHIP BETWEEN SANITATION INEQUALITY AND POVERTY AT MJI MPYA

### 4.1 Economic impact of SSS

**Both landlords and tenants claimed to spend significantly less money on using SSS compared to the previous cost of maintaining pit latrine toilets.**

waste trucks). While 25.6 percent previously paid a higher rate of 100,001 up to 150,000 TZS. Each household emptied their pit an average of four times per year, concentrated around the rainy season when the pits were likely to fill up faster. As one resident explained:

**‘When the toilet got full I had to spend a lot of money on emptying due to the location of my house. The wastewater trucks couldn’t reach my house which is on the downstream, therefore I had to spend a lot of money to illegally remove wastewater, or, rather construct [a] new chamber where I can transfer wastewater to.’**

*Mji Mpya SSS beneficiary in the FGD.*

Since the installation of SSS, the sanitation tariff for waste disposal, set by the utility company, DAWASA, is 5465.75 TZS per month plus 18 percent VAT. This means that the annual tariff costs less than the average cost of emptying a latrine once by wastewater truck. This cost applies per connection to the sewer, and therefore to each house, regardless of the number of residents. This means that for some houses the utility bill is paid by only one person, while in others it is shared between a larger group of residents.

**SSS tariffs are distributed using a variety of models, including some innovative models.**

The research identified four payment models for the sanitation tariffs. The first and most common is where the landlord pays the full amount for the tariff. One landlord, for example, said he pays the full tariff because he thinks it is the responsibility of a landlord and attracts tenants to the house. Another male landlord commented that he pays the full amount in order to avoid ‘misunderstandings’ with tenants. The survey suggests that 58 percent of landlords pay the full tariff on behalf of their tenants.

The second model is where the tariff is divided proportionately between tenants and landlords. In a house with a landlord and three tenants, each might be expected to contribute 1375 TZS per month. In the focus groups, a number of landlords and tenants raised the issue that often one or more tenants don’t contribute their cost share, for example due to financial pressures, which then demands higher contributions from the other residents and can lead to tensions between tenants and/or the landlord.

The third, similar model, saw the landlord pay the majority share of the tariff, while the tenants contribute a smaller proportion.

The fourth is a new arrangement, by which the tenants pay a combined 10,000 TZS per month ‘services fee’ to the landlords that cover a range of costs. This includes a contribution to the sanitation tariff as well as electricity, community policing, and waste collection. This model was only observed in the relatively affluent upstream areas. Landlords suggested that this model had been introduced to simplify arrangements and reduce conflicts between landlords and tenants.

**SSS has reduced household costs in Mji Mpya.**

SSS is significantly less costly than the previous pit latrines. It has been found that, there has been a reduction of emptying costs due to the installation of the Simplified Sewerage System. Both landlords and tenants claimed to spend significantly less money on using SSS compared to the previous cost of maintaining pit latrine toilets.

The survey showed that previously, 66.7 percent of residents spent between 50,000 to 100,000 TZS per truck to empty their latrine. 7.7 percent of the users claim that they previously didn’t pay to have their latrines emptied (for example because they were inaccessible to the

**SSS has increased amount of water used in the households for sanitation services and associated costs.**

The users of SSS recognized that they use considerably more water to use the SSS than when they were using the pit latrine toilets. This is because SSS requires a sufficient amount of water to function well. Most focus group participants indicated that they use two to three times as much water daily compared to before SSS (only a small number indicated no change). The amount of water used currently varies significantly with household size from three to five 20L buckets for an individual living alone to six to eight buckets for a house with a landlord and three tenants. This adds up to somewhere between 10,000 – 20,000 TZS per month per house.

Larger households have seen even greater increases in water usage, especially those with lots of children. The survey indicated that the majority of residents (76 percent) purchase water from private bore holes; a 5L bucket costs 50 TZS, a 20L bucket costs 100 TZS.

Overall however, the increased expense on water is more than offset by reduction in cost of the sanitation tariff when compared to the cost of emptying a pit latrine. Water costs could be reduced significantly further if houses connected to SSS were able to access loans to install a piped water supply. DAWASA could make such loans available on the same terms as the loans that were made available for SSS-connected houses to improve their toilets.

**The SSS has reduced household expenditure and increased capacity for savings.**

In addition to the reduced cost of using SSS, the system reduces household expenditure in other ways. One important saving is on medical expenses. Before the installation of SSS residents reported regular medical expenses related to urinary tract infections (UTIs), believed to have been caused by unsanitary toilets. Some residents reported paying for four medical check-ups in a six-month period. This has been greatly reduced by the more sanitary SSS toilets, enabling the residents to save the money or use it for other purposes. As one resident explained:

**“The SSS toilets have been very helpful in our community. When women get UTIs we men also get it too. Nowadays at least the situation is better, unlike in the previous years where we used the traditional toilets.”**  
*Participant in the FGD.*

A further saving is on buying the toilet dishes for children to use. Mothers in the settlement previously bought toilet dishes for children to use, which could be emptied into the pit latrine, as the pit toilets were dangerous for children to use alone. The new SSS toilets are safer and cleaner for children, as well as elderly and vulnerable residents to use, reducing the need to purchase an additional toilet dish.

**4.2 Social Impacts of SSS**

**The SSS has improved health outcomes and the settlement environment**

There are significant health benefits of the SSS when compared with the previous pit latrines. There have been reduced instances of malaria and typhoid and there have been no cases of cholera recorded in the settlement since 2016. It is reasonable to expect that the SSS has improved the health prospects of connected residents by reducing contact with human waste. However, the majority of residents in the wider settlement remain unconnected and are still using pit latrines.

**The new SSS toilets are safer and cleaner for children, as well as elderly and vulnerable residents to use, reducing the need to purchase an additional toilet dish.**

**The SSS has contributed to reduction in neighborhood conflicts**

A key social impact of the SSS, raised in every focus group, was the perceived reduction in conflict in the settlement between neighbors that resulted from the illegal disposal of waste from pit latrines and digging new pits between existing structures. This reduction in conflict has been accompanied by what some residents described as greater cooperation around the shared maintenance of the SSS.

Before the SSS was installed, the use of pit latrine by most of the residents at Mji Mpya led to various day to day conflicts especially for the downstream dwellers who were most affected by the discharge of wastewater from the upstream dwellers during the rainy season.

### **The SSS has promoted human dignity, safety, and privacy of women, children, people with disabilities and poorer people**

The SSS has been part of promoting the dignity of people with disabilities, children, women and elders.

### **The SSS has been part of promoting the dignity of people with disability, children, women and elders.**

Pit latrine toilets had stairs which made them difficult to access for elders or people with disabilities. The height of the stairs was necessary given the high water table in the settlement. Currently, with the SSS toilets, people with disability, elders, sick people, children and women are able to access and use the toilets in a much more comfortable manner. The SSS toilets have also been covered by the roofs which enhances privacy and safety.

### **The SSS has positively changed perceptions about Mji Mpya**

Residents in the FGDs repeatedly described the SSS toilets as cleaner than the previous pit toilets, as well as the reduced wastewater in the area and enhanced community life, both at the household level and across the settlement. This has contributed to enhancing the reputation of the settlement. Before the SSS, people in some neighboring settlements such as Tabata used to joke about the poor environment and poor sanitation facilities in Mji Mpiya. Now they ask how they can get connected to the system.

## **4.3 Findings on the Maintenance of the SSS**

### **There is lack guidelines to enable operations and maintenance of the SSS by the beneficiaries**

A key issue that cuts across both the economic and social impacts of SSS is maintenance. Residents identified a number of technical challenges, which were perceived to be the source of ongoing maintenance issues. The issue most frequently identified was that the pipes frequently become blocked through what several residents called 'improper' use. This is sometimes because households are not always using sufficient water with the system; some residents noted that there were occasions when water was not available to purchase nearby. It was also argued that the blockages were caused by some residents flushing household waste down the pipes. Some believed that the pipes are too narrow, or too close to the surface and likely to be damaged, while others felt that the system should include some form of filtration to prevent blockages.

When blockages do occur, the majority of residents suggested that small maintenance jobs such as unblocking are the responsibility of the community, while larger maintenance tasks ought to be the responsibility of DAWASA. However, some made the point that DAWASA are not responsive when they try to communicate with them, leading to delays in maintenance and potential consequences for users as well as the system. A number of residents also talked about the responsibility of the network chairperson in maintenance, as an unofficial focal point for management of one of the SSS networks.

There is no clear adopted mechanism or guideline to enable the beneficiaries to work together on the maintenance and to show who is the chairperson of the network, what is network, how do they pay for maintenance, who collects the amount etc. When they need to communicate an issue that they are not able to fix in the community, there was a lack of clarity about what to do next. Some residents contact the network chairperson, others the Mtaa office, and others DAWASA – all with varying levels and speed of response. Some residents felt that communication channels are poorly defined, meaning that residents are effectively left responsible for addressing issues with SSS when they arise.

### **The SSS has brought clear gender roles when it comes to sanitation matters between men and women at Mji Mpya**

There is a clear gendered division of responsibilities that came through in every group. With very few exceptions, it was stated that women are responsible for cleaning the toilet and men are responsible for purchasing tools and materials, and for maintenance. Small maintenance jobs are done by men – either managed and paid for by men in the house, or by calling DAWASA (men) or by local male youths (vyura). Some residents talked about going to the network chairperson (who might be men or women) as a first port of call if there was an issue, others try to fix the problem themselves or with the help of others in the community before seeking help.

## 4.4 Policy Findings

### The SSS has shown the importance of community participation in the projects like SSS

The installation of SSS has revealed the importance of community inclusion in bringing changes for their respective societies. From discussions with beneficiaries of Mji Mpya, it was revealed that they were engaged from the conception stage to implementation. The local technicians were taken from Mji Mpya and the materials for construction were stored at Mji Mpya.

This has been evidenced to bring positive results of sustainability of the project as majority appreciated their involvement and other who are non-beneficiaries are currently eager to be connected since they have witnessed their neighbours being included in all aspects of given information about the project and the implementation. This indicates the importance of ensuring there is a room for participation of community members in policy making especially for the urban poor in informal settlements which are victims of poor sanitation due to nature of their environment.

### The SSS has enabled the utility to replicate the project at Mji Mpya and Kombo informal settlement

Simplified sewerage system has been evidenced to have influenced the replication of the project by DAWASA into other areas of Mji Mpya where the same challenges were noted. The system was first initiated and designed by CCI but later on also adopted by DAWASA as the main authority facilitating water and sanitation projects in Dar es Salaam and Coastal region. It has been noted that among the nine networks that have been developed, some were first initiated by CCI and the rest replicated by DAWASA not only at Mji Mpya but also in the neighbouring street of Kombo.

**[There is an] importance of ensuring there is a room for participation of community members in policy making especially for the urban poor in informal settlements which are victims of poor sanitation due to nature of their environment.**

### The SSS has increased attention of stakeholders to urban poor sanitation needs

The SSS project has brought an indirect impact to the Local Government Authority with regards to the importance of the needs for the urban poor living in informal settlements. The initiative has influenced and caught the attention of many stakeholders, regarding the issues of sanitation. For example, the Local Government Authority, CSO's sanitation networks such as TAWASANET, local and international organisations such as BORDA and World Bank Group in Tanzania.

Therefore, this is evidenced to be a catalyst to changes and improvements on public health and sanitation policy which is not there (sanitation policy) in order to scale up the influence to authorities to support the provision of reliable and equitable sanitation for the urban poor in informal settlements.



Figure 4.  
Survey volunteer reviewing household locations. Image: CCI, 2022..

## 5. CONCLUSION AND RECOMMENDATIONS

This research has provided insights which can be used in the near future by policy makers and decision makers to improve the sanitation status at Mji Mpya and any other kind of informal settlement in Tanzania and East Africa. Many of the impacts of the SSS, have been positive despite the fact that, there are still some challenges that need urgent treatment as observed and recommended below:

**Further investment is needed in order to scale up and replicate the positive experience of SSS in Mji Mpya.**

Through this research it has been noted that the impacts of the SSS are beyond sanitation improvement. Therefore, CCI should fund-raise, create workshops and invite decision makers to hear the research findings, especially those who are politicians and other philanthropists who can support sanitation improvement at Mji Mpya. This good work that CCI has done at Mji Mpya should not be limited by its capacity and not to be heard beyond the level of CCI in order to attract many more stakeholders to support sanitation improvement through the SSS at Mji Mpya.

**Community organization is critical to the long-term viability of SSS. Future SSS projects should prioritise building capacity in the community to manage and maintain the system.**

Community participation and ownership of the SSS is very important for its long term viability. Community organization and mobilization prior to the installation of SSS ensured wide acceptance and cooperation regarding the SSS installation and ongoing management. Small project management committees have been particularly important for ensuring the long-term sustainability of the SSS. However, the management committees have not always received sufficient training or lack skills necessary to manage the SSS. Future SSS projects should work closely with organized groups of the urban poor and prioritize training for the long-term management of the SSS.

**The success of SSS in Mji Mpya is built on the well organised community that has developed a sanitation system to meet their context and needs.**

There is no single solution which fits all. For example CCI merged the SSS with DEWAT in the informal settlement of Mji Mpya. The utility and other stakeholders can also learn from this and cooperate to ensure the success of such projects like the SSS to help the local communities to improve their sanitation status and influence at scale other social and economic impacts of the projects not only to end with only sanitation improvement.

It is very imperative for the SSS to be driven from the community and not from the donor funding point of view. If DAWASA and other stakeholders will need to initiate SSS in other informal settlements, it is good for the community itself to rethink the need for the improvement of the sanitation using SSS. Awareness creation is important to be firstly imparted and this will help in avoiding reluctance to paying tariffs in the future.

**[It is very imperative for the SSS to be driven from the community and not from the donor funding point of view...Awareness creation is important to be firstly imparted and this will help in avoiding reluctance to paying tariffs in the future.**

**Education on sanitation, hygiene, and the use of SSS is critical for maintaining the system and ultimately ensuring it is affordable to low-income groups.**

There is a great need to ensure toilet users have knowledge in using the toilets to avoid blockage and other problems associated with poor usage of the toilets in informal settlements such as Mji Mpya.

**Loans made available to residents to improve toilets should also be extended to cover the costs of piped water access.**

The loans made available to improve the toilets has contributed significantly to the cleanliness, safety and accessibility of sanitation, especially for children, elderly, and people with disabilities. Given the positive impacts of these loans on households connected to SSS as well as the wider environment in the settlement DAWASA should make available loans on comparable rates to enable houses to connect to piped water in order to ensure that households have sufficient water to properly use and maintain the SSS and to reduce the unit cost for water when compared to private sellers.

Issues of cost recovery must be made clear in line with community members economic capacity. If the tariffs or any other form of payment is affordable to the community members, they will be able to pay and support the project. If the issues of cost recovery on loan to rehabilitate their toilets is not clear or the changes in tariffs will affect the community acceptance of the SSS project, it is better for all the issues to be declared from the beginning and not to implement the project while in the near future problems arises and prove the failure of the project.

### Improved sanitation is a necessary but insufficient condition of reducing poverty and inequality in Dar es Salaam.

Despite the fact that the SSS has brought many positive impacts in Mji Mpya, the residents in the settlement still face a wide range of daily challenges relating to livelihoods and access to infrastructure such as improved roads near the settlement. It is important to recognize that SSS can have positive, multidimensional impacts on the lives of low-income groups, but improved sanitation alone is not sufficient to address the wide range of social and economic challenges these groups face on a daily basis. One key improvement that will immediately contribute to the lives of residents in Mji Mpya is the improvement of roads in and to the settlement.



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Figure 5 and back cover  
Field surveying with residents in Dar es Salaam. The sewerage treatment ponds seen behind the right-side wall. Image: CCI, 2022..



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