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Keep the pot Cooking

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Community-led revolving funds and the key ingredients for just sanitation

Figure 1: Close in Proximity Far in Practice, Mwanza, 2023. Photo Credit: Warda Reggane

POLICY BRIEF

Key points

- To ensure the long-term success of a grassroots revolving fund that aligns with community needs, it is essential to maintain balance in **three key principles: social inclusion, financial sustainability and local context**.
- For revolving funds to be effective, they must have **clear co-management and governance** structures.
- To enable financial sustainability, there must be a **diversity of funding**, both externally and internally.
- Achieving equitable sanitation requires enabling community access to a **portfolio of options** through the fund.
- For funds to scale, revolve and contribute to socially-just development, there must be **co-financing grounded in strong collaboration and multi-actor partnerships**.

Introduction

By 2050, over two-thirds of the world's population is expected to be urban, with many living in unplanned and informal settlements and in smaller urban centres in Africa and Asia [1]. This urban expansion leads to a series of challenges, as low-income communities who reside in informal settlements often live in the most hazardous and unhealthy areas [2]. Mwanza, the second largest city in Tanzania, Africa, is also experiencing these challenges, with approximately 75% of the population residing in unplanned settlements on steep and rocky terrains in 2018. As a result, the provision of basic sanitation services is highly constrained by geography and road access [3]. Furthermore, because many of these households are composed of low-income earners lacking formal employment and housing tenure, access to individual financing for sanitation facilities in these areas is also limited [4]. This highlights the disparity between the need for sanitation facilities and access to the financing necessary to build them.

The newly established Mwanza City Sanitation Forum and Fund (MCSFF) aims to address this disparity by setting up an accessible and sustainable fund for the development, operation, and maintenance of individual and communal sanitation infrastructure. Seed money for MCSFF has been made available through a flexi-fund provided by OVERDUE, a collaborative research project operating across seven African cities and composed of practitioners from the Bartlett Development Planning Unit at UCL, Ardhi University, the Centre for Community Initiatives (CCI), the Sierra Leone Urban Research Centre (SLURC), and others [5]. The intention of this project is to address the sanitation crisis in urban Africa through developing deep understandings of existing narratives and taboos on the topic, investigating coping mechanisms and daily practices, and helping to foster spaces for dialogue [6].

One way of envisioning a fund like the MCSFF is to view it as a metaphorical "pot" (as shown in Figure 2) of money that loans are taken out of when needed. The goal is to keep the contents of this pot full and simmering at all times, so that it can continue to feed the community. Several key "ingredients" have been identified as crucial in a "recipe for success" to ensure the sustainability of this fund and its ability to accommodate an ever-growing demand for sanitation improvements in Mwanza. Through fieldwork that was mainly conducted in Mabatini, Mwanza, and integrating learnings from similar contexts, the principles (or "ingredients") identified that must be continuously well-balanced are **social inclusion**, **financial sustainability**, and **local context**.

This brief will elaborate on the importance of finding balance in these principles before highlighting actionable strategies for developing a healthy community-led co-financing solution to sanitation injustice in Mwanza. These strategies fall into the three categories of **co-governance and management**, **diversifying funding**, and offering a **portfolio of options**. Finally, it is imperative to highlight that this is a co-financing solution where multiple actors must work together and collaboratively contribute to sustaining and managing the fund to accomplish these goals.

dpu Development Planning Unit
UCL THE BARTLETT
OVERDUE Tackling the **sanitation** taboo across Urban Africa
ARDHI UNIVERSITY Weledi na Ustawi

1. Overview of research and problem

1.1 The Problem: Rapid Urbanisation and Sanitation

Located on Lake Victoria's shoreline, Mwanza is a hilly city known for its dramatic rock formations [4]. This geography, and the related inadequate road infrastructure, comes with provisioning challenges as services such as a centralised sewerage system become unattainably expensive [7]. This lack of sanitation service coverage in parts of the city, combined with the rapid and unplanned growth of Mwanza's informal settlements, has resulted in both water pollution and significant health impacts [4]. In response to these challenges, the Lake Victoria Water and Sanitation (LVWATSAN) project in partnership with the East Africa Community and UN-Habitat was launched to target the expansion and upgrading of water supply and sanitation in urban centres within the Lake Victoria Basin, including Mwanza [8]. However, in the Nyamagana and Ilemela districts of Mwanza, only 6% and 7% of households respectively have access to a piped sewer system [9]. Thus, as part of the LVWATSAN Mwanza project and to accommodate the rapid population growth on challenging terrains, the Mwanza Urban Water Supply and Sanitation Authority (MWAUWASA) has begun implementing a Simplified Sewerage System (SSS) in order to connect to the citywide conventional sewerage system [5].

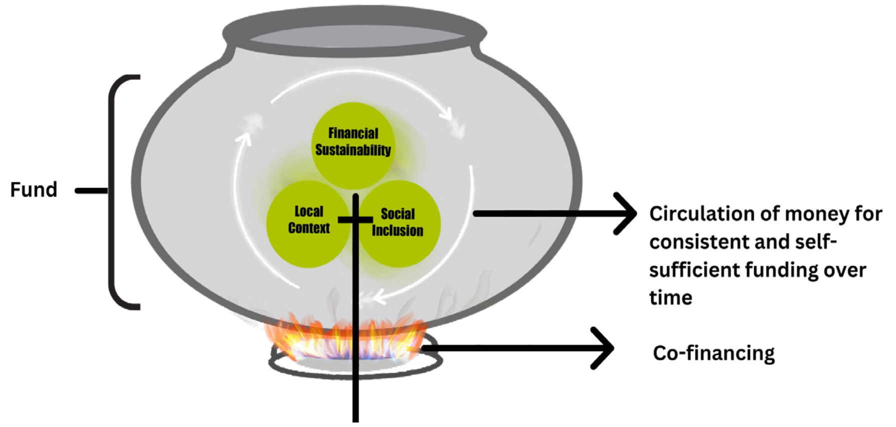


Figure 2: The Ingredients needed for a Sustainable Revolving Fund to Succeed

The expansion of the SSS requires improved toilet facilities for the system to be properly installed. However, their absence in informal settlements in Mwanza remains a significant challenge, impacting not only the expansion of the SSS, but also exacerbating inequalities related to gender, age, and physical abilities. With existing infrastructure in poor condition and often difficult to access, safety concerns arise for women and girls, while physical challenges due to inaccessibility place a disproportionate burden on the elderly and people with disabilities [10]. Due to these technical and financial challenges, providing adequate sanitation infrastructure becomes a complex task that requires innovative approaches.

Residents of unplanned settlements are not only excluded from city-provided sanitation services because of their lack of formal tenure titles, but also face difficulties meeting the financial requirements of traditional loan systems due to their informal status [11]. This means that loans from formal financing are often unavailable because of a lack of credit rating, official employment, or other eligibility rules. This hinders residents' abilities to secure their own financing for the provision of the basic sanitation services that are currently unavailable to them [12].

1.2 The Solution: the "Pot" of Grassroots Funds

In response, local savings groups networks - mainly constituted of women - have grown globally as a way for the urban poor to gain access to funds. Savings groups have been utilised by the urban poor as a tool for improving their quality of life. They are an example of the grassroots approaches to financing that have become key mechanisms for enhancing sanitation in informal areas around the world [13-15].

Locally, many of these savings groups are managed by the Mwanza Federation of the Urban Poor ("the Federation"), which exists as part of a more extensive network of groups led by the Tanzania Urban Poor Federation (TUPF) [16]. The regional Federation coordinator, Mary Rubelwa, reported that there are 35 local savings groups in Mwanza, composed of 197 men and 483 women.

Being members of the Federation also allows the poor in Mwanza to access

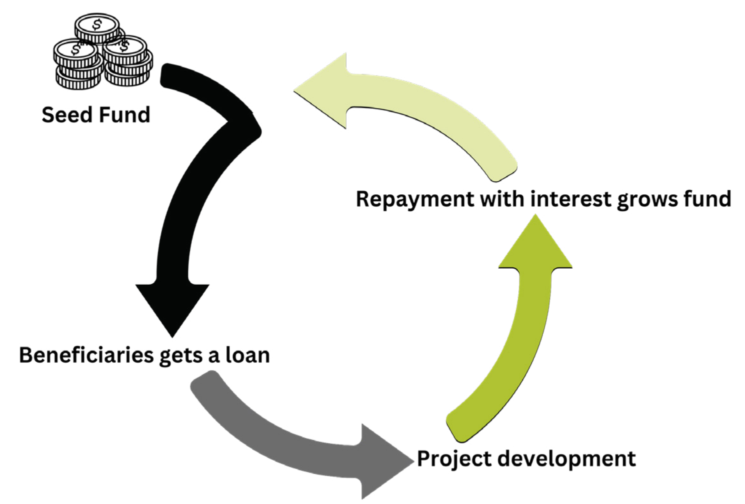


Figure 3: Revolving Fund as a Financial Mechanism

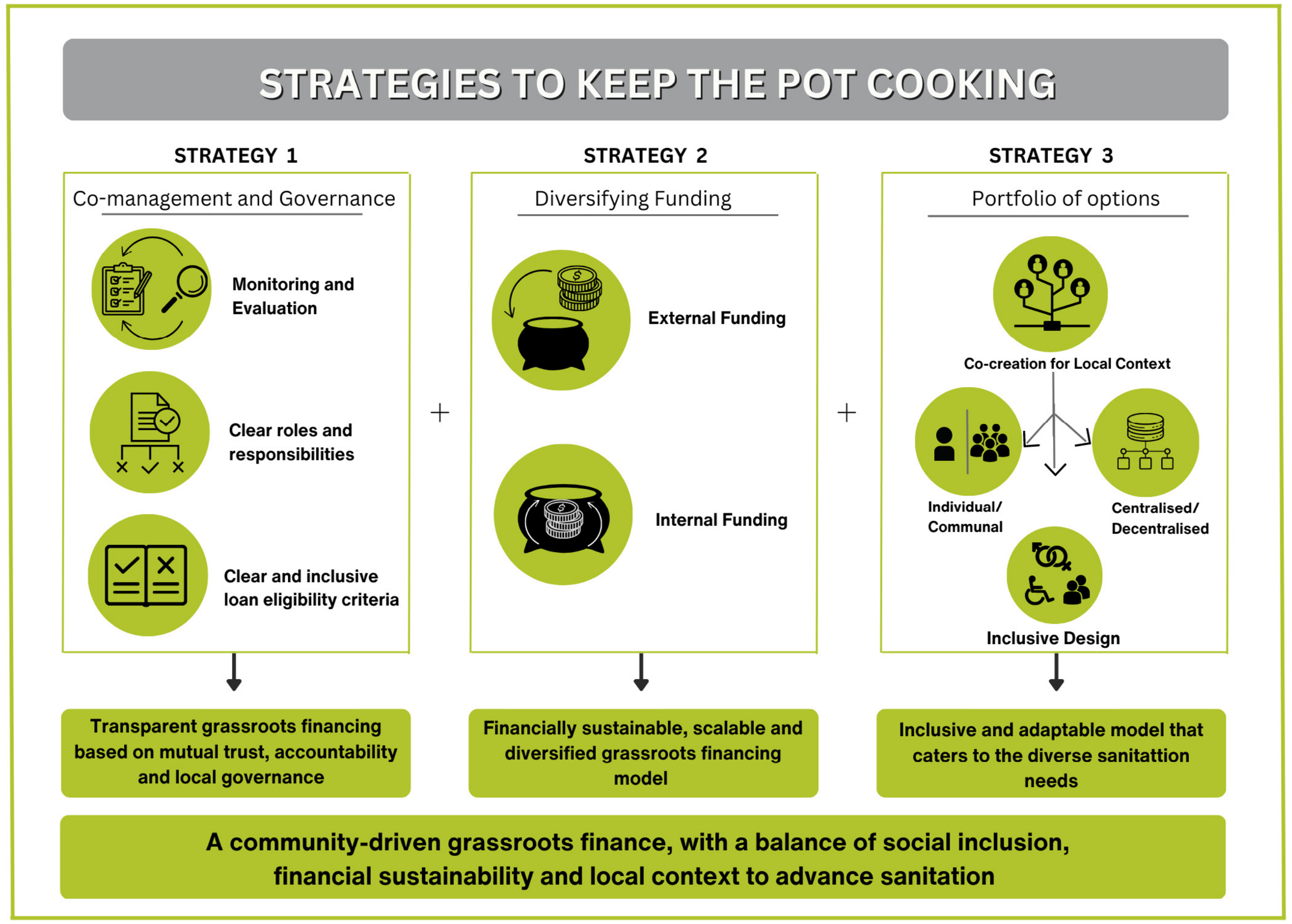


Figure 4: Strategies to keep the pot cooking

the Tanzania Urban Poor Fund (JENGA), which provides loans for various development projects such as land acquisition, housing construction, income generation activities, and infrastructure development. However, this fund is not frequently utilised for sanitation projects, and research [17] suggests that there are repayment challenges, especially for non-income generating projects.

Using the same community-led format and reflecting on learnings from the JENGA Fund, a new grassroots financing mechanism targeted exclusively at improving sanitation infrastructure has been established through the MCSFF. The MCSFF is intended to operate as a revolving fund (Figure 3), meaning that the initial seed money serves in two ways; firstly as a hook for further funding or collaborators and secondly as a means to dispense the first loans that when repaid will allow for continuous and self-sufficient funding over time.[1]

1.3 The Recipe for Success: the "Ingredients"

Returning to the ingredients needed in this pot - social inclusion, financial sustainability, and local context - it is clear that if any of them are lacking, the fund is at serious risk of failing. For example, if loan approval rules become too restrictive, these funds lose what differentiates them from formal financing: namely, the ability to include beneficiaries who were otherwise excluded, putting social inclusion at risk. If loans are given to those in the most need without concern for repayment or without interest rates, it is likely that financing will run out, threatening the principle of financial sustainability. Finally, even if a fund is operating in a healthy and sustainable manner, there is a danger that it will be used to finance projects that make sense on paper but not in context. For example, building toilets that require water connection when the connection is not possible, or putting services in locations where they will have to be torn down when a new road is built. This can jeopardise the ultimate impact-making intention behind the fund.

Keeping these key principles in mind at all times, the following three strategies to "keep the pot cooking" (shown in Figure 4) were formulated based on desk-based research and engaging with local actors in Mwanza. Our team drew insights from discussions with Federation leaders and members, community government leaders (mtaa), utility engineers, and residents of informal settlements. This was done through focus group discussions, transect walks, interview sessions, and a final collaborative community workshop, predominantly held in the Mabatini settlement.

[1] https://dictionary.cambridge.org/dictionary/english/revolving-fund

2. Examination of findings

2.1 Strategy 1 - Co-management and governance

Establishing and maintaining a clear and transparent structure for grassroots financing is critical [18]. Throughout interactions with savings group members in Mwanza, our team witnessed both positive and negative examples of governance, clarifying how impactful it is. For example, one woman left a savings group in Mabatini because of mistrust in that group's leadership, stating that there was favouritism in how loans were determined and a lack of transparency. This group later dissolved altogether. Another interviewee had been the treasurer of the Tujituma group since 2021, a savings group in Mabatini composed of 7 men and 8 women. She came prepared with record books that showed a very different picture of a well-documented and structured system that promotes accountability and clarity as seen in Figure 5.

From the aforementioned examples, we deduce that community-led funds cannot succeed without trust and accountability, and that relies in part on strong co-management and governance. By co-management, we mean the sharing of power and responsibility so that groups like this can avoid corrupt power dynamics and promote supportive and trust-based local relationships [19]. Groups should ensure that members communally agree on the systems in place and hold one another accountable when it comes to following protocols [20, 21]. By making space for more voices to be heard through collaborative decision-making, grassroots financing like the MCSFF has the opportunity to be an empowering and socially inclusive solution where many actors contribute to keeping the pot cooking. Figure 6 shows a diagram of different stakeholders and their roles in building the MCSFF.

Elements of governance that need to be collaboratively decided upon from the start include: establishing clear roles and responsibilities for all participants, creating guidelines for loan eligibility, agreeing upon repayment schedules and terms, setting up monitoring and evaluation systems for tracking the flow of finances, and maintaining clear documentation of this entire process. Case Study 1 provides an example of strong governance in a similar context.

These suggestions align with community input from Mwanza. During a workshop held in Mabatini, community members participated by offering suggestions for how a fund like the MCSFF should be co-managed most effectively. The idea of a community committee with elected leadership was forwarded, for the purpose of determining how to use loans from the fund and for managing the repayment process. It was emphasised that unbiased leadership was crucial, avoiding political party affiliation as well as having a system to elect leadership. Furthermore, many residents discussed the need for transparent documentation systems with physical office space for storing records (or the possibility of digitising records) and also expressed an interest in pursuing training opportunities to learn the fund management skills that would allow a committee like this to be as effective as possible.

Case Study 1: The Akiba Mashinani Trust (AMT) was established to finance a federation of savings groups that has been operating in Kenya since 2003 [20]. AMT focuses on ensuring participation and accountability within urban communities and financial institutions. They accomplish this by actively co-managing their programs within community groups through meetings, collective decision-making, and strong record-keeping. Members are consistently involved in the planning, implementation, monitoring, and evaluation of all projects and processes, ranging from loan collection to housing development. The strong engagement of members in co-managing the institution is underscored by interview results; 90% of members demonstrated an understanding of the content and significance of the by-laws. Furthermore, the commitment to transparency and accountability has driven a steady increase in the repayment rate, which escalated from 76% in 2012 to 93% in 2016 [21].

One specific suggestion that came out of this community workshop conversation was the idea of prioritising loans for landlords. Some residents theorised that they would be more reliably able to repay and any toilets built could benefit many households simultaneously. It is important to acknowledge the limitations of this proposition, as it could unintentionally perpetuate existing community power dynamics and inequalities and could result in additional financial burdens through raised rent prices. So although this idea will need to be explored further, this contribution does highlight how community members can help determine guidelines around governance aspects like eligibility. A benefit of ensuring community members are co-managers of a fund is that they understand local needs and conditions better than any other actors [22].

Grassroots financing does need to strike a balance between formality and informality to ensure that it is not overly restrictive or risking the **social inclusion principle** [23]. Nevertheless, we emphasise that a fund like MCSFF must take structure and governance seriously from the start in order to succeed.

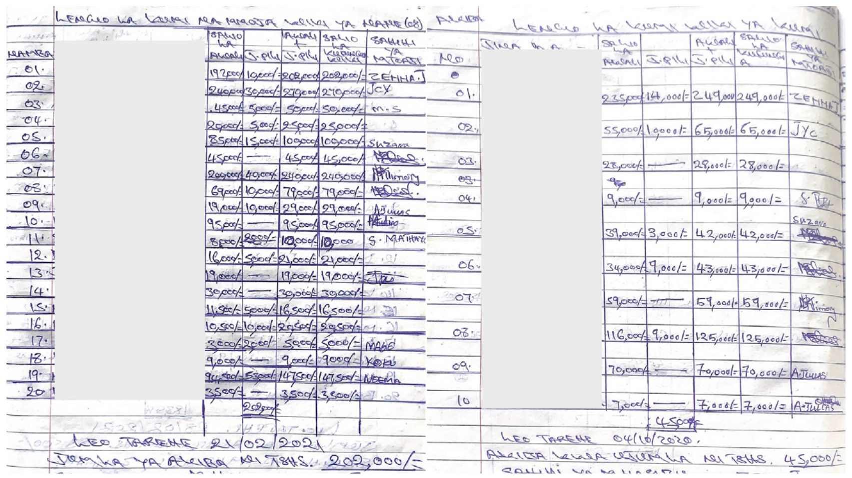
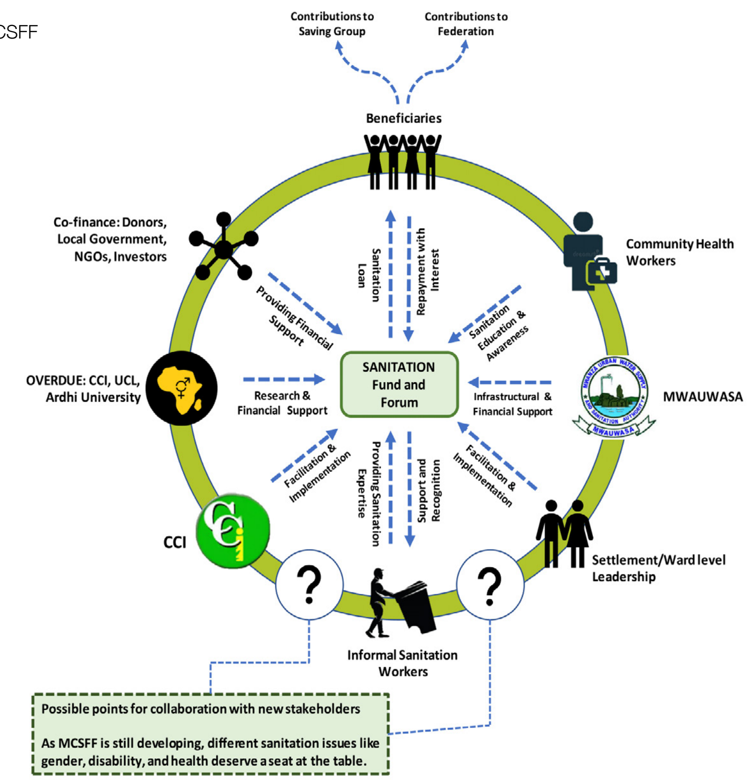


Figure 5: A Record Book depicting the Documentation of Tujituma Savings Sroup, Mwanza, Tanzania, 2023. Photo Credit: Lucy Di Santo

Figure 6: Potential Stakeholder Partnership of MCSFF



2.2 Strategy 2 - Diversifying funding

Diversification of funding channels is another crucial strategy for improving community-led financing for sanitation [24], specifically when it comes to the **financial sustainability** ingredient in our pot. In order for the MCSFF to be scaled up, there is a need to do more than keep the initial flexi-fund revolving. Including other sources of funding, which can be both external and internal, will add to reliability and allow for growth [24].

External funding sources

When it comes to external funding channels, these usually come from stakeholders such as private donors, local government, and formal financial institutions. Partnerships with both private donors and formal financial institutions have played significant roles in the operation of grassroots finance. For example, AMT built a partnership with Standard Banks, who agreed to provide account opening and management services to savings group members and to offer loans at commercial rates [21]. Often the most powerful stakeholder, local governments can provide financial support by issuing subsidies from the public budget or by including projects into city master plans, delivering access to alternative financial channels [25].

Our first strategy on governance complements this second strategy. Having a proper financial management system that strengthens financial accountability is an important part of scaling up. Weru et al. [20-21] advised that governments and investors prefer to work with partners that have developed effective financial practices, risk management plans and trackable monitoring and evaluation systems.

Internal funding sources

Diversifying through internal funding resources can include both the need for interest rates and the introduction of income-generating opportunities. With regards to the former, there is also a fine balance that must be maintained with interest rates. Microfinance organisations locally are already considered “bloodsuckers” by many residents because of the high interest rates and requirements for asset collateral or guarantors in case of loan defaults [26]. Thus, funds that target the urban poor have to offer rates that are lower than microfinance or other banking institutions in order to be attractive and accessible, but being interest-free is not realistic.

Referring to the possibility of generating income from sanitation services, over ten out of the nineteen participants in a workshop with Mabatini residents indicated an interest in building communal toilets in public areas. As a result, charging user fees for communal toilets in these areas is a possibility that was suggested by the community. This comes with its own challenges, as seen in Case Study 2 from Akiba Mashinani in Kenya. Paying for toilet use can be unaffordable for many residents, and the maintenance of communal toilets can be neglected when it is not planned properly, causing additional sanitation issues [27]. These realities were reflected in the final workshop with the community, where a few locals voiced their concerns over management and viability of communal toilets in a settlement like Mabatini.

Case Study 2: It is reported from the AMT case study in Kenya that many households lack access to toilets in their homes, resulting in them using private communal toilets in public areas. These communal toilets cost KSh 5 for an adult and KSh 3 for a child (US$ 0.48/0.29). Because these toilets are typically pit latrines, they fill up rapidly and require frequent emptying and maintenance. As a result, individuals often resort to using alternative methods such as tins and paper bags, also known as "flying toilets", because of the high cost and inadequate conditions of these facilities. This practice involves dumping raw faecal waste on rooftops or into drains, causing further environmental and sanitation problems. This does not mean that communal toilets should not be constructed, but that maintenance and accessibility must be considered in the planning [21].

2.3 Strategy 3 - Portfolio of options

A community-led financing mechanism must cater to a portfolio of options tailored specifically to tackle the varied sanitation needs of the community. There must be an acknowledgement of the needs and rights of women, girls, people living with disabilities, and other marginalised groups, and their inclusion in the provision of sanitation facilities has to be ensured [6,28]. Moreover, to adequately account for the diverse sanitation needs within a community, it is essential to go beyond the confines of conventional planning practices. A comprehensive understanding of the **local context** thus becomes crucial to guarantee that the funds pooled in the MCSFF are appropriately utilised to accommodate varied needs. Additionally, this will also prevent the solutions generated from the fund from becoming obsolete.

From the research we did in the field, MWAUWASA has shown attentiveness to local community concerns, yet, the utility's focus on sanitation services in Mwanza remains limited to constructing individual improved toilets. This is because the provision of individual toilets is needed to facilitate the expansion of the utility's SSS plan. Consequently, the settlement's lack of public sanitation services becomes a growing concern. For instance, within the Mabatini settlement, there is only a single public sanitation facility that is improved, which happens to be situated in a school. These concerns were expressed during the final workshop with the community, with the majority demanding more public toilets in high-traffic spots such as markets, places of worship, and densely populated areas in the settlement. Moreover, from the transect walk and various interviews, some individuals stated that they had taken loans for septic tanks and water connections, which indicates the need for other sanitation services beyond individual toilet superstructures.

This means that in addition to MWAUWASA's existing SSS expansion plan, it is also important to explore how MCSFF can fund projects that are customised to local needs and driven by community support to provide tangible and sustainable sanitation solutions [29].

Figure 7: Focus Group Discussion in Gedeli, Mwanza, Tanzania, 2023. Photo Credit: Ka Hei Chan

A portfolio of options must look beyond distribution inequalities. This means that the solutions should not focus solely on the presence or absence of individual toilets or the expansion of the SSS network, rather, they should be co-produced with the community by implementing participatory approaches. According to Cairns-Smith et al. [29], the portfolio of options needs to progress towards a more equitable sanitation strategy that integrates decentralised and on-site systems, which are adaptable to local conditions. Furthermore, the recognition of individual rights, collective identities, and particular needs, specifically for women, girls, people living with disabilities, and marginalised groups should be at the forefront of this strategy[30].

Case Study 3 below provides an example of what offering a portfolio of options can achieve.

Ultimately, the portfolio of options should also incorporate an understanding of the long-term planning visions for the settlement to mitigate potential risks, such as those associated with climate change and natural disasters, as well as to adapt to the community's future needs [4]. For these reasons, a strong partnership between the community, the local government, and the utility is needed to ensure that the portfolio of options effectively supports the city's long-term vision.

Case Study 3: Citywide Inclusive Sanitation (CWIS) is a framework that has become increasingly popular, and used among public authorities, policymakers, development banks and global institutions, such as the World Bank and African Development Bank. The framework aims to ensure equitable and safe sanitation services for all urban dwellers, including the urban poor. To do this, CWIS emphasises the need for affordable and accessible services that are not limited by land tenure or hardware type. This signifies a commitment to keep the portfolio of options open while ensuring equitable financial support for specific needs, which means that service authorities may deploy a range of planning approaches to reach different customer segments within a city. Targeted to the sewered and non-sewered areas alike, CWIS aims for clear service outcomes for all residents. The framework also incorporates gender and social equity by involving marginalised groups in decision-making processes and protecting the rights and health of sanitation workers. By implementing these principles, CWIS seeks to establish a sustainable and inclusive urban sanitation system that caters to the diverse needs of urban populations while ensuring equitable financial support for the poorest individuals [31].

Figure 8: Co-Production Workshop in Mabatini, Mwanza, 2023. Photo Credit: Warda Reggane

3. Conclusion

To "keep the pot cooking" in revolving funds, balance in the principles of social inclusion, financial sustainability and local context must be maintained. In Mwanza, and similar contexts, this can be accomplished through strategies such as designing strong co-management and governance structures, diversifying funding sources, and introducing a portfolio of options for those accessing the fund.

These principles and strategies will enhance grassroots financing mechanisms but for a fund such as the MCSFF to be both sustainable and scalable, it must also be rooted in a collaborative co-financing approach. Local community input and meaningful participation from beneficiaries can ensure their active engagement in supporting projects like this in the future. However, while the community has a strong role to play in co-management and mobilisation, they are not the only actors involved and cannot bear the burden alone [32].

There are many local actors who are already involved in the MCSFF and ensuring a fair and well-defined partnership. Co-financing is the key to not only diversifying funding and dividing responsibilities, but also to building long-term collaborative partnerships between major actors in Mwanza that can be employed outside of sanitation projects. It is argued that the sustainable financial support of a project often relies on effective cooperation between internal and external stakeholders [19]. Currently, such city-scale leadership remains lacking in Mwanza since the public-private partnership has not been completely established.

Safe and accessible sanitation is a key human right [33] that should not fall onto the individual to bear the burden of solving alone [32]. Thus, each of the strategies suggested in this brief aims at and relies upon co-financing. Establishing clear co-governance and management guidelines facilitates trust-based partnerships and shared responsibilities between actors. Co-financing is a necessary component of diversifying funding, because local savings from the community will not be sufficient to meet sanitation needs, and because financing essential services should not be the responsibility of beneficiaries alone. Finally, having a portfolio of options emphasises that co-financing solutions must be community-led but also reveals the role of local government in integrating projects into a long-term vision that is not in isolation from the rest of the city.

It is only through co-financing that incorporates the key principles of social inclusion, financial sustainability and local context that funds like the MCSFF can scale up and continuously revolve in a just manner.

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References

[1] Chow W, Singh C, Thomas A, Catt D, Chu E, Solecki W, et al. CSCPPM2 Cities and Settlements by the Sea. 2022

[2] Zhang J, Chen SS, Gao Q, Shen Q, Kimirei IA, Mapunda DW. Morphological characteristics of informal settlements and strategic suggestions for urban sustainable development in Tanzania: Dar es Salaam, Mwanza, and Kigoma. Sustainability (Switzerland). 2020 May 1;12(9).

[3] Gladys H, Tekalign T, Joyce N, Cecilia U. Youth-Led Mwanza City Informal Settlements Baseline State of Living Conditions and Access to Urban Basic Services. 2018: 1.

[4] Hambati H. Weathering the storm: disaster risk and vulnerability assessment of informal settlements in Mwanza city, Tanzania. International Journal of Environmental Studies. 2013; 70(6): 919–39.

[5] OVERDUE. About OVERDUE [Internet]. OVERDUE. 2020 [cited 2023 Jun 16]. Available from: https://overdue-justsanitation.net/?page_id=18

[6] Advancing just sanitation across urban Africa: Focus on Mwanza (Tanzania) MSc in Environment and Sustainable Development 2022/23-DEVP0022 Terms of Reference. 2022. From: https://overdue-justsanitation.net/?page_id=540#our_team_mwanza.

[7] Manga M, Bartram J, Evans BE. Economic cost analysis of low-cost sanitation technology options in informal settlement areas (case study: Soweto, Johannesburg). Int J Hyg Environ Health. 2020; 223(1): 289–98.

[8] Salim A. LVWATSAN-Mwanza Immediate Investent Plan (IIP) Environmental and Social Management Plan (ESMP) for Simplified Sewerage and Sewer Rehabilitation and Extensions in Ilemela and Nyamagana Districts-Mwanza Region. Mott Macdonald. 2016: VI-8.om

[9] UCL – University College London. OVERDUE: Tackling the sanitation taboo across Urban Africa. 2020. From: https://www.ucl.ac.uk/sustainable-development-goals/case-studies/2020/oct/overdue-tackling-sanitation-taboo-across-urban-africa

[10] Yap C, Mcfarlane C, Ndezi T, Makoba FD. Sanitation challenges in Dar es salaam: the potential of Simplified Sewerage Systems. Environ Urban. 2023: 13.

[11] Sheuya SA, Burra MM. Tenure Security, Land Titles and Access to Formal Finance in Upgraded Informal Settlements: The Case of Dar es Salaam, Tanzania. CUS. 2016;04(04):440–60.

[12] Dennis D. People and Systems for Water, Sanitation and Health: Water and sanitation services to the urban poor. 27th WEDC Conference. 2001: 253.[9] Tufvesson A, Bunduki A, Butoto L, Mkare D. Sustaining HESAWA in Mwanza region, Tanzania.

[13] Tufvesson A, Bunduki A, Butoto L, Mkare D. Maximizing the Benefits from Water and Environmental Sanitation: Sustaining HESAWA in Mwanza region, Tanzania. 31st WEDC International Conference. Loughborough University. 2005: 262-265.

[14] Cotton M, Motta BH. Engaging with environmental justice: governance, education and citizenship. Inter-Disciplinary Press. 2011: 270.

[15] Wamuchiru E. Beyond the networked city: situated practices of citizenship and grassroots agency in water infrastructure provision in the Chamazi settlement, Dar es Salaam. Environ Urban. 2017; 29(2): 551–66.

[16] CCI. CCI Tanzania | Urban Poor Fund (JENGA) [Internet]. n.d. [cited 2023 Jun 16]. Available from: https://ccitanzania.org/urban-poor-fund-jenga

[17] Trémolet S, Mansour G, Muruka G. Developing microfinance for sanitation in Tanzania. SHARE Research Consortium. 2015: 26-27.

[18] Ibrahim S. How to Build Collective Capabilities: The 3C-Model for Grassroots-Led Development. J Human Dev Capabil. 2017; 18(2):197–222.

[19] Carlsson L, Berkes F. Co-management: Concepts and methodological implications. J Environ Manage. 2005; 75(1): 65–76.

[20] Weru J, Njoroge P, Wambui M, Wanjiku R, Mwelu J, Chepchumba A, et al. The Akiba Mashinani Trust, Kenya: role of a local fund in urban development. International Institute for Environment and Development. 2017: 2-6.

[21] Weru J, Okoyo O, Wambui M, Njoroge P, Mwelu J, Otibine E, et al. The Akiba Mashinani Trust, Kenya: a local fund's role in urban development. Environ Urban. 2018; 30(1): 53–66.

[22] Alexandra B. Grassroots organizations are just as important as seed money for innovation. United Nations High Commissioner for Refugees. 2023: 1-4

[23] Oino P, Luvega C. The Dilemma in Sustainability of Community-based Projects in Kenya. Global Journal of Advanced Research. 2015; 2(4): 757-768

[24] WASTE Foundation. Financial Inclusion to Improve Sanitation & Health: A multi-stakeholder partnership addressing supply & demand sides of the global sanitation challenge. United Nations. 2023. From: https://sdgs.un.org/partnerships/financial-inclusion-improve-sanitation-health-multi-stakeholder-partnership-addressing

[25] International Federation of Accountants. Greater Transparency and Accountability in the Public Sector. 2022. From: https://www.ifac.org/what-we-do/speak-out-global-voice/points-view/greater-transparency-and-accountability-public-sector

[26] Wondirad HA. Interest rates in microfinance: What is a fair interest rate when we lend to the poor? Qual Quant. 2022; 56(6): 4537–48.

[27] Simiyu S. Determinants of usage of communal sanitation facilities in informal settlements of Kisumu, Kenya. Environ Urban. 2016; 28(1): 241–58.

[28] Colin Mcfarlane. Sanitation in informal settlements: a networked problem. International Institute for Environment and Development. 2015. From: https://www.iied.org/sanitation-informal-settlements-networked-problem

[29] Sarah Cairns Smith, Haley H, Emmanuel N. Urban Sanitation: Why a portfolio of solutions is needed?. The Boston Consulting Group. 2014: 16-18

[30] Rusca M, Alda-Vidal C, Kooy M. Sanitation justice? The multiple dimensions of urban sanitation inequalities. In: Water Justice. Cambridge University Press. 2018: 210–25.

[31] Schrecongost A, Pedi D, Rosenboom JW, Shrestha R, Ban R. Citywide Inclusive Sanitation: A Public Service Approach for Reaching the Urban Sanitation SDGs. Front Environ Sci. 2020; 28: 8.

[32] Otsuki K. Infrastructure in informal settlements: co-production of public services for inclusive governance. Local Environ. 2016; 21(12): 1557–72.

[33] United Nations. Human Rights to Water and Sanitation. 2023. From: https://www.unwater.org/water-facts/human-rights-water-and-sanitation

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