



Background note

How to attract new sources of financing to sanitation

10th meeting of the Roundtable on Financing Water (22-23 November, Abidjan)

This paper will inform discussions in Session 6 on **Financing sanitation** at the tenth meeting of the Roundtable on Financing Water (Abidjan, 22-23 November 2023).

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1. The sanitation challenge

Access to improved sanitation services in Sub-Saharan Africa remains among the lowest in the world. As of 2022, it was established that in Sub-Saharan Africa, only 30% of the urban population used safely managed sanitation¹ and 18% used basic hygiene services while 5% still used open defecation. For the rural areas, these figures are even lower. For Northern Africa, 69% of the urban population is connected to safely managed sanitation, 28% is connected to basic sanitation services, while there is virtually no open defecation (see figure 1)². According to the UNICEF/WHO joint monitoring report on water and sanitation 762 million people (of which 255 million in urban areas) lack basic sanitation services, 193 million still practice open defecation (of which 23 million in urban areas).

There is a large gap in investment financing for sanitation infrastructure – less than 20% of the estimated \$69 billion required annually for sanitation infrastructure to reach the SDG target is mobilized (AMCOW, 2022).



Figure 1: Regional sanitation coverage in urban and rural areas, 2015-2022 (%) (source: UNICEF/WHO, 2020)

The World Bank reckons that with the rapid urbanization, some 350 million more Africans living in cities by 2030³. The explosive growth of cities in Africa means the number of people without sanitation is growing by more than 10 million each year⁴. Contemporary sanitation solutions have failed to cope with the sanitation challenge on the continent and are expected to do so with this rapid urbanization trend. Across Africa, only about 10 % of urban premises are served by sewerage systems, most of which are poorly maintained, with leaky sewers, unserviceable pumping stations and dysfunctional treatment plants, resulting from low technical and financial capacity in the local authorities or utility companies responsible for them. The great majority of urban dwellers use non-sewered sanitation (pit latrines and septic tanks of various types)

The financing gap to reach safely managed sanitation for all is huge. Recent estimates of WHO/UNICEF indicate that to achieve basic sanitation across Sub-Saharan Africa would require, on average, 1.1 percent of GDP and for

¹ Safely managed sanitation requires access to improved sanitation facility that is not shared with other households and also that the waste is disposed of or recycled safely (SDG 6.1, UN 2015)

² Progress on household water, sanitation and hygiene 2015 – 2022, JMP, WHO/UNICEF

³ <https://blogs.worldbank.org/water/closing-access-gap-water-and-sanitation>

⁴ State of the world's sanitation 2020, WHO-UNICEF, 2020



safe sanitation, 2.5%—around 70% of these costs are estimated to be for urban areas. The capital costs to cover this gap amount to US\$10 billion per year and these would in addition generate operation and maintenance costs almost as high – US\$7.2 billion⁵

The negative impacts of poor sanitation range from fecal-borne diseases with attendant losses in productivity and increased healthcare costs due to school absenteeism as young adults lack facilities for menstrual hygiene management. Inadequate hygiene is likely to disproportionately impact women and girls. Many adolescent girls and women did not participate in school, work or social activities during menstruation. Access to handwashing facilities is also important for maintaining personal hygiene, and women and girls, and other persons who menstruate, have specific additional hygiene needs related to menstrual health⁶. Poor sanitation systems also exacerbate pollution and eutrophication of freshwater bodies thereby interfering with their economic uses.

2. Despite the upsides, why sanitation lags behind

The economic benefits of investing in sanitation are huge. In 2012, the WHO estimated that the global economic return on sanitation spending (from avoided illnesses and deaths, avoided time and expenses in health care, and freed time for engagement in economically productive activities) is US\$5.50 dollar for every one dollar invested. A WHO/UNICEF global study in 2020 showed an overall return on basic sanitation of just over five times in rural areas and a return of six times costs from eliminating open defecation. In urban areas, ratios are lower, at almost three times costs, as a result of the higher unit costs of sanitation interventions in urban areas⁷.

Poor sanitation also contributes to global warming through release of untreated human waste into the environment that ultimately decomposes to produce greenhouse gases (carbon dioxide and methane). Conversely, climate change impacts sanitation systems through heavy precipitation and flood events that can lead to inundation or physical damage to sanitation facilities (like pit latrines, septic tanks, wastewater treatment plants, and sewer lines), damage of transport infrastructure used in the transportation of fecal sludge, and through droughts that bring about water scarcity and reduce ability of piped sewer systems to convey sewage. The destruction or impaired function of sanitation facilities from climate related events may lead to release of untreated feces into the natural environment, or force residents in the affected areas to practice open defecation, all of which leads to increased emission of greenhouse gases from discharge of untreated waste into the natural environment.

Why has sanitation not sparked off?

Multiple factors have converged to perpetuate the situation of low urban sanitation service coverage in Africa. These include:

- (i) Rapid urbanization, much of which is occurring in unplanned peri-urban slum neighborhoods where sanitation infrastructure is typically lacking or poorly developed.
- (ii) Ageing and poorly maintained sanitation infrastructure.
- (iii) Large gap in investment financing for sanitation infrastructure – less than 20% of the estimated \$69 billion required annually for sanitation infrastructure to reach the SDG target is mobilized (AMCOW, 2022).
- (iv) High operational and financial inefficiencies of water and sanitation utilities.
- (v) Poor governance arrangements characterized by fragmented responsibilities.
- (vi) Increase water stress and scarcity
- (vii) Climate change whose impacts include frequent flash floods that cause pollution from pit latrines and destroy sanitation infrastructure.

⁵ State of the world's sanitation: An urgent call to transform sanitation for better health, environments, economies and societies, UNICEF/WHO. 2020.

⁶ Focus on household drinking water, sanitation & hygiene with a special focus on gender, 2000-2022, WHO/UNICEF joint monitoring program

⁷State of the world's sanitation 2020, WHO-UNICEF, 2020



- (viii) Feeble business cases: provision of sanitation services is basically not a very attractive business case; number of clients is low and they are poor, investment levels are low and hence not attractive for a large part of the international and local financiers. There are high levels of unwillingness to pay and collection of tariffs is cumbersome.
- (ix) Lack of available financing; since the level of operations is small, decision-making is fragmented, business cases are feeble, a lot of stakeholders involved and the political visibility is low, it is not an attractive sector to invest in. Financing but also development financing rather flows to sectors that are more easy accessible, have lower risks because responsibilities are more clear, have a higher political profile and investment amounts are larger thus with relative lower administration costs to manage.

3. Policy and institutional framework reforms

Business as usual is not going to close the sanitation gap and free up the financial resources to provide safely managed sanitation for all. As indicated by the World Bank⁸ a paradigm shift is needed, away from focusing too heavily on infrastructure investments especially in conventional sewer systems and wastewater plants. Sewer systems are not the only solution. Sewer systems may work in western countries but not in Africa where connection rates are low and urban neighborhoods have large differences in physical and social characteristics. Instead, the focus should be on sustained service delivery for all, including the poor. Service providers should not concentrate on traditional centralized systems, but on an array of options that are tailored to the realities of different cities and needs of all its inhabitants, including Citywide Inclusive Sanitation (CWIS). There is a need for considering centralized and decentralized systems, onsite sanitation, fecal sludge systems, and simplified sewer systems. Sanitation should not be considered in isolation but be integrated with water supply, drainage, solid waste management, land use and housing development. Integrating sanitation in broader initiatives such as slum upgrading may provide a good opportunity⁹. Flexibility and adaptability is key so that as cities grow and change, sanitation services can adapt with them. Service providers have to become aware of this new approach and their master planning should reflect these new realities.

How can this paradigm shift be achieved¹⁰?

1. Political support at the highest political level is required; no change will take place without political champions at the highest level; the paradigm shift will go against vested interests and conventional way of thinking. Utilities for example have to become more engaged in sanitation services and their approach in service provision should be changed from the focus on infrastructure to optimizing service delivery through an array of different service options.
2. Urban planning has to be focused on appropriate service delivery to all, rather than looking mainly at centralized infrastructure solutions; planning should be focused on integrated urban solutions that take into account also local, on-site solutions. Aim should be to look for fit-for-purpose solutions, rather than one-fits all solutions. In this way, clients are served to their needs and payment behavior will also be better. Moreover, allow for non-centralized solutions will also be (much) cheaper.
3. Master planning should include sanitation and should be flexible in its implementation; investments that are planned for the coming 40-50 years are often far too expensive (as expected needs are almost always forecasted too high); hence build in more decentralized solutions will allow for more flexibility to adapt to changing circumstances; urban growth is hard to forecast also because of unpredictable urban migration.

⁸ Citywide Inclusive sanitation – Business as Unusual: shifting the paradigm by shifting the minds – Gambrell et al, 2020

⁹ Financing urban sanitation in Africa: a role for sustainable infrastructure finance and innovation, David Schaub-Jones, African Centre for Cities & Alfred Herrhausen Gesellschaft, 2022

¹⁰ City-wide inclusive sanitation – business as unusual, shifting the paradigm by shifting the minds, Martin Gambrell et al, Worldbank, 2020



4. There should be clear responsibilities for both water and sanitation services and these should be under one government institution, so that integrated planning and a focused strategy are possible.

4. Critical action areas to bring in more financing to the sanitation sector

In an environment where hybrid solutions need to be found, innovation and new financing approached can prosper. By innovation, not only technical innovation is meant, but also financial, planning and management. Ways must be found to pursue innovation that will also lead to lower capital and maintenance costs, which will create economies of scale by increasing leverage, which will create stronger business cases, and which will increase client satisfaction of the services provided.

Incentives to attract more private and/or climate financing to the sector may include:

- Packaging of sanitation into a broader urban services program so that sanitation becomes more attractive to finance; packaging could ensure that more bankable parts (such as electrification, solid waste management) could cross subsidize less bankable parts (such as sanitation);
- In order to become attractive, the sector must become more streamlined in decision making, planning and management. Also business cases have to become more solid with clear revenue streams
- Look for financing to leverage financing through de-risking measures like (partly) guarantees or blended financing
- Targeted subsidies should be applied to promote sanitation if necessary to strengthen business cases; subsidies are often hidden and implicit; for example in many countries the poor are often subsidizing the rich through the water and sewerage tariffs. Subsidies should be transparent and made explicit.
- New planning and management methods that use flexibility as starting point rather than try to avoid it. The approach should be to build in flexibility to adapt to new circumstances; over-investments because of long planning horizons can be avoided in this way; this also will be much cheaper as less investment funds have to be captured. Flexible approaches allow also more innovative approaches which will create more incentives for the private sector to step in.

It is believed that in such an environment and with the incentives proposed, the private sector will engage, and other sources of financing become available.

To illustrate this, in 2013 the government of Togo approached the African water facility to provide support toward the cholera health break which was becoming more and more intolerable in Sokode with loss of life during the rainy season. A project was therefore developed “toilets for all” and the main objective was to provide toilets to most vulnerable people of course but also to construct a fecal sludge treatment plant (FSTP) which will not only be used by the targeted population but also the whole district including the surrounding settlements as there were no similar infrastructure. The inclusion of women was crucial as they were the one struggling more with the whole situation, which tended to provide tremendous results.

Toilets were not provided for free, but there was a set of microcredit unit whereby the population who wanted the toilets was adhering and paying only 30% of the total cost; the awareness campaign was successful, and more than 700 toilets were built at the end and cholera ended in that area.

Due to the success of that project, an additional project was therefore elaborated – ongoing on currently which will not only duplicate the success, but also provide sanitation masterplans to 9 additional cities in Togo which has the same features. At the elaboration of the project, the Bank was also involved, and they agreed to finance the infrastructures – fecal sludge treatment plants for those 9 cities which were evaluated to 15 million USD. Others development partners are also being involved to ensure that at the end, downstream investments for the projects/program of the to be developed sanitation masterplans are financed.



5. Attracting the private sector

Within the overall sanitation market, different sub-markets exist and the linkages between them vary from place to place. Private sector providers of services range from the masons that build household latrines to the entrepreneurs that build and run toilet blocks, manual pit-emptiers, privately-run vacuum trucks and FSM systems. Customers for these services are perhaps even more diverse, from pay- and-go users of toilet blocks to landlords letting out accommodation, from homemakers making home improvements to tenants emptying a shared latrine. Mostly, these sanitation service providers are done by the private sector. Presently, the scale of the private sector operations is relatively small and the contribution in terms of money is limited.

With applying the hybrid model where sanitation solutions will be integrated into the broader WASH service provision and the economies of scale can be increased, the potential for the private sector, domestic and international, will increase. The private sector could bring in advantages on the following:

- Financial sources and instruments. Private sources of financing could be attracted. More sophisticated financial instruments can be applied with credit enhancement or risk mitigating measures. First loss coverage or partial guarantees may be used to make involvement in the sector more attractive. The private sector is also able to attract financing from other sources like financial intermediaries or local and international banks. It goes without saying that this will go at a cost; attracting private financing or third party financing will generally be more costly than donor financing.
- Business approach. The private sector will bring in more efficient and effective management techniques so as to improve operations; the private sector will also bring in more cost awareness and will focus on increasing revenues; only with a solid business case, the private sector can survive. It is to say, however, that the private sector will require a profit margin to cover its business risks.
- Commercial. Automation in payments, mobile payment systems, smart-water metering will lower the threshold for payment and will strengthen the payment regime, thereby the increasing the collection rate efficiency and solidifying the revenue base.
- Planning. Optimizing planning efforts is important in more complex environments where different activities have to be planned and different stakeholders have to be involved.
- Technical. New technical innovations can be applied that can lower the costs and/or increase the revenues through f.e. valorization of waste streams.

These innovations can help to strengthen business cases and this can start an upward spiral of attracting more private financing, creating more economies of scale and strengthening business cases.

6. Attracting climate financing

There is a vicious circle of low political profile of sanitation, fragmented responsibilities, lack of knowledge of sanitation impact on climate change, lack of visibility of sanitation in NDCs and hence lack of awareness of the climate financiers on the possibilities to finance sanitation.

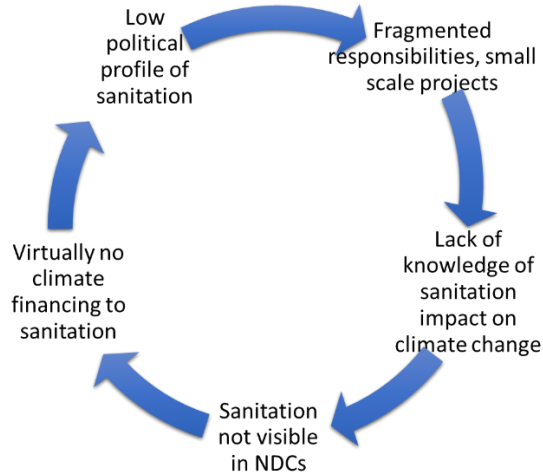


Figure 2: vicious circle of lack of climate financing for sanitation¹¹

What is needed to break this vicious circle?

Actions on 4 areas are needed, see next figure. These are in line with the incentives provided under para 4. There is one additional incentive specifically important for attracting climate financing and that is that sanitation should be made visible in the NDC reporting as one of the sectors or sub sectors. Only by showing the effects of improved sanitation on climate mitigation and adaptation efforts, it will be possible to attract climate financing to the sector.



Figure 3: actions needed to increase visibility of the sanitation sector and attract more climate financing¹²

¹² idem



7. Conclusion

Business as usual is not going to close the sanitation gap and free up the financial resources to provide safely managed sanitation for all. As indicated by the World Bank¹³ a paradigm shift is needed, away from focusing too heavily on infrastructure investments. Instead, the focus should be on sustained service delivery for all, including the poor. Service providers should not concentrate on traditional centralized systems, but on an array of options that are tailored to the realities of different cities and needs of all its inhabitants, including Citywide Inclusive Sanitation (CWIS). Sanitation should not be considered in isolation but be integrated with water supply, drainage, solid waste management, land use and housing development.. Flexibility and adaptability is key so that as cities grow and change, sanitation services can adapt with them. Service providers have to become aware of this new approach and their master planning should reflect these new realities.

This paradigm shift can be made, but it needs political support. No change will take place without political champions at the highest level; the paradigm shift will go against vested interests and conventional way of thinking. Utilities for example have to become more engaged in sanitation services and their approach in service provision should be changed from the focus on infrastructure to optimizing service delivery through an array of different service options. With the political support, three things must be changed. First of all, urban planning has to be focused on appropriate service delivery to all;. Aim should be to look for fit-for-purpose solutions, rather than one-fits all solutions. In this way, clients are served to their needs and payment behavior will also be better. Secondly, master planning should include sanitation and should be flexible in its implementation; investments that are planned for the coming 40-50 years are often far too expensive (as expected needs are almost always forecasted too high); And thirdly, there should be clear responsibilities for both water and sanitation services and these should be under one government institution, so that integrated planning and a focused strategy are possible.

In addition, critical actions are needed to increase the attractiveness of the sanitation sector, such as packaging of sanitation into a broader urban services program so that sanitation becomes more attractive to finance. Targeted subsidies should be applied to promote sanitation if necessary to strengthen business cases;

With the proposed changes, the sector will become more attractive to the private sector and ready for climate financing. The different proposed scenarios will create more revenue streams due to the combined sanitation initiatives in the urban planning framework thus clear decision-making processes. With this, the financing risks will become smaller. As indicated above, business as usual is not going to close the sanitation gap, all alternatives are worth trying, including this one.

¹³ Citywide Inclusive sanitation – Business as Unusual: shifting the paradigm by shifting the minds – Gambrill et al, 2020