

The use of research in participatory planning of sanitation and hygiene: lessons from Babati, Tanzania

Background: a global shift in planning perspectives

Planning documents for large towns and cities can end up unused due to unrealistically ambitious plans and/or a lack of ownership by local stakeholders. Smaller towns often grow organically, gaining their official 'township' or 'municipality' status once significant development has already happened without proper understanding the context or any formal planning process. Masterplans have historically been created externally to the town or city they apply to with little or no deep local participation or research leading to a mismatch between the plan and the reality on the ground and rendering the plan un-implementable [1]. Conventional sanitation master planning processes can also miss site-specific information on sanitation, hygiene and water which would guide the choice of options. The default choice is often a central sewer network even in places where the majority are using dry pit latrines.

The approach to planning for urban development is being questioned across the sanitation sector. Whilst planning is critical it needs to be focused and achievable, meaning that a higher level strategy for sanitation is considered a better approach than traditional master planning [2]. Long-term strategic, participatory planning for urban development is advised, bringing a wide range of stakeholders together and ensuring that every member of society has a voice [3].

Recent research by WaterAid showed that there is a big opportunity for progress in sanitation, if the drivers listed below appear to be present in the city (and vice versa) [4]:



A typical pit latrine found in rural areas of Tanzania.

- Presence of a municipal champion(s) making sanitation a priority
- Spike in citizen demand / political priority (e.g. a crisis, a national campaign, a policy/regulation change)
- Readily available finance or solid financing opportunities
- Strong capacity within the administration

This gives strong evidence for the need for any successful sanitation planning to be participatory – involving the administration, politicians and municipal actors.

In Tanzania, the increase of unplanned settlements has intensified the challenge of access to environmental sanitation and hygiene services to urban dwellers. It is estimated that only 35% of the urban population has access to improved sanitation, with the remaining using basic sanitation facilities, shared infrastructure or practicing open defecation [5]. Inadequate provision of sanitation and hygiene services result in morbidity and mortality for Tanzanians due to endemic infections resulting in illnesses.

Using research in participatory planning in Babati town

Background to the project

Since 2016 a consortium of organizations has been conducting the first comprehensive sanitation mapping in Tanzania in Babati town. This has been a joint project between Manyara Regional Secretariat, Babati Water and Sanitation Authority (BAWASA), Babati Town Council, Nelson Mandela African Institution of Science and technology (NM-AIST) and WaterAid Tanzania. A formative research and a baseline survey were undertaken to inform the process and subsequently a series of scenarios were created. Scenario Planning is one of the key steps in the research project, whereby research findings are used to determine contextually possible technological and approaches or options to inform a town-wide sanitation and hygiene plan. The process was conducted in a participatory manner following current best practice and with guidance from experts in sanitation and hygiene planning.



Project aims

The aim of the project was to produce a series of clear sanitation and hygiene scenarios developed in a participatory manner which can be used to catalyse progress in sanitation and hygiene in Babati.

The research itself aimed to address the following questions:

- What motivates and drives people (households) to invest in and improve sanitation and hygiene practices in an urban context?
- What drives institutions (government, donors, NGOs, authorities), and private sectors to invest and/or improve sanitation and hygiene practices in an urban context?
- The main economics, social, political and institutional determinants of success for urban authorities to design and implement an inclusive sanitation and hygiene plan.
- The prevalent practices, risk factors and potential options for managing faecal sludge.
- Approaches to town-wide planning for sanitation and hygiene in similar environments to Babati town.

Methodology

The project used a digitized approach to research and data collected with carefully defined categories for the various sanitation types encountered. Local government were involved in data collection and in discussions around the maps and statistics generated during analysis. The subsequent scenario planning was developed through a three-day workshop which included presentations (focusing on formative research, baseline findings, stakeholder analysis, and political economy), interactive and participatory discussions and group work. The Scenario planning session brought together WASH line ministries, representatives from private sector and community, Manyara Regional Secretariat and the research team.

Participants discussed the findings of the research and possible scenario options based primarily on the research findings and shared experience from other countries in sub Saharan Africa and Asia. Each group selected and ranked possible scenarios for Babati Town and presented back. Based on group feedback, possible scenario options for Babati on both Sanitation and Hygiene were selected and ranked based on the Babati context. This was followed by development of a road map and selection of task force for execution of selected scenarios. The scenarios will then be transformed into actions through the development of business plans.



Key research findings

- Sanitation practitioners must look beyond the numbers of sanitation users so that no one is left behind. For example, the research in Babati found that **only 5%** of the population are practicing open defecation but **41%** are using poorly constructed pit latrines leaving only about **33%** using improved latrine such as pour flush and water closet. This means that focusing on sanitation user cownwunts would mean that those using poorly constructed latrines would be left behind.
- The research found that **64% of households' faeces were not safely managed** (using the Sustainable Development Goals definition which includes either in situ or off-site treatment of excreta), posing a great health risk to Babati's residents. The toilets emptied with vacuum pumps make up less than 9% of the total number of onsite sanitation facilities as a result of few people owning improved toilets.
- Although 97% of people reported washing their hands after using the toilet, the structured observation showed that only 46% actually did this. Similarly, **66% were observed washing hands** before eating compared to 93% reported.
- The research further found that only 21.2% of surveyed households had a hand washing station at home though **85.8 % reported to understand the importance of hand washing station** at critical times.
- Despite its hazardous risk to the public, **management of liquid waste is still perceived as an individual responsibility** that does not need organization at a community level and it is therefore less visible and less prioritized.



An example of unimproved latrines in Babati Town.

Policy implications for sanitation and hygiene planning in Babati and other small towns in Tanzania



The above findings have significantly contributed to a number of policy processes in Babati Town council. A newly developed spatial masterplan for the township has adopted key recommendations from the research and has included a separate chapter on sanitation and hygiene. This was an unexpected opportunity to use the research in a practical way.

Babati Town Council and BAWASA with support from WaterAid have also used the findings to develop adaptive sanitation and hygiene options which are appropriate for the Babati context. These options are different from what was thought suitable before the research work. It is important to note that these scenarios have not yet been implemented and so the outcomes of these are yet to be seen. However, it is believed that the lessons shared here are still relevant. Plans are also underway for Babati town council and BAWASA to develop sanitation and hygiene business plan using the same findings.:

i. Thorough analysis of the context and determining drivers and barriers are critical to the appropriate selection of sanitation and hygiene options for a town. Using participatory methods to involve local government and utilities in the research helped with this study to ensure that the research feeds into the above mentioned planning processes.

ii. The bottom-up approach in this process is time consuming but yields high quality results and data, which is important to developing sustainable solutions. Space to allow exchange and dialogue between key stakeholders is also critical to the process. Whilst the whole process is not possible in every town the concepts contained within a bottom-up, evidence based approach are valid in every sanitation planning scenario to ensure decisions are relevant and appropriate.

iii. An integrated process for research in sectoral planning is critical in developing sustainable interventions which are informed by local knowledge and contextual issues. However this process is expensive and time consuming and it therefore calls for the revision of research budgets within local Government and Ministry budgets to develop implementable plans.

iv. For growing towns like Babati, adaptive planning processes are necessary to deploy appropriate approaches and technological options for both liquid and solid waste management. During the scenario planning process, the research findings brought new insights and thinking as to what sanitation and hygiene options are appropriate for the current and future Babati as opposed to what was thought before by BAWASA and other development partners.

- v. Monitoring progress towards WSDP II and the SDGs will require collection of reliable data. Harmonization of methods and definitions of indicators to come up with robust data collection and verification tools is an urgent requirement to reach the last mile with improved sanitation and hygiene services. The Government both at local and national authorities, through the National Sanitation Campaign, should take advantage of technological advancement (mobile network coverage, and lower costs of smartphones and internet connection) to simplify data collection and maintain consistency in reporting.
- vi. Small towns can only improve sanitation if they make sanitation a political priority before attempting to overcome the technical and financial challenges.
- vii. Behaviour change centered interventions are necessary to maximize and sustain impact of any sanitation and hygiene intervention. This is justified by the research which found that communities' knowledge on the importance of handwashing is as high as 85.8% while the actual practice is only 21.2% of the surveyed sample.



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