RESEARCH SUMMARY

The 'Mtumba approach' to Sanitation and Hygiene

Evaluating the participatory approach in Tanzania

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The ‘Mtumba approach’ to sanitation promotion

The Mtumba sanitation promotion approach draws on a range of established sanitation promotion approaches, such as the Participatory Hygiene and Sanitation Transformation (PHAST), Community-Led Total Sanitation (CLTS) and Participatory Rural Appraisal (PRA), and adapts them to the social, economic and cultural context in Tanzania. Named after the village where the approach was devised, the Mtumba approach focuses on improving the standard of latrines and empowering the community to ensure sustainability of the approach outcomes once the implementation project is complete.

Evaluation of the ‘Mtumba approach’

The evaluation exercise was based on an Irish Aid-funded pilot of the Mtumba approach in Mtoa ward in Iramba district, Singida region; Mambali ward in Nzega district, Tabora region; and Masieda ward in Mbulu district, Manyara region, all in Tanzania which took place between March 2008 and March 2011. The evaluation focussed on measuring the outcome and impact of the Mtumba approach, with the aim of:

- determining the outcome and impact of the Mtumba sanitation approach within the project districts
- assessing the possibility of scaling-up in other districts.
- measuring the outcome of the approach in terms of behaviour change and sanitation demand creation
- measuring impact of the approach in terms of gastrointestinal diseases;
- quantifying the cost implication of implementing the approach per person, household or community
- establishing the social factors affecting choice of sanitation and hygiene technologies.

The evaluation was based on data gathered through in-depth interviews with policy and decision makers and implementers at district, ward and village levels, a desk review of ward sanitation and hygiene activities, focus group discussions, surveys with over 1,200 households across the three districts, and analysis of programme cost data to estimate the costs per person at household level.

The evaluation measured the quality, quantity, equity and sustainability of sanitation and hygiene in the communities using the following indicators:

- construction and use of latrines
- hand washing at 4 critical moments: with soap after defecation; after cleaning a child’s bottom; before food preparation; and before eating
- presence of faeces in the house environment
- sustainability of latrine construction business
- uptake of sanitation and hygiene technologies

Evaluation findings

Before the Mtumba approach

In 2007, prior to the piloting of the Mtumba approach, information gathered across all study areas indicated sanitation coverage at 36% of households. In the Masieda ward, records show that less than 5% of households had latrines. The latrines that did exist were considered to be of poor quality due to poor construction, and a lack of understanding of the importance of sanitation and the negative effects associated with water and soil contaminated with human faeces. Similarly, baseline studies conducted by the health department in Mambali ward before the piloting of the Mtumba approach identified that 59% of households did not have latrines and that the majority of the community were practicing open defecation.

Community environment and demographics

The majority of respondents were subsistence farmers and or engaged in agriculture and animal keeping. 40% of respondents had no formal education, 56% of respondents were educated to primary school level, and 4% were educated to secondary school level or above. Of the 1,203 households visited, only 27 households had their own or privately shared water source. Therefore, the majority of households collect their water from community owned sources.

Awareness of the 'Mtumba approach'

Results indicated that 80% of respondents were aware of the Mtumba approach, identifying village leaders, artisans and animators and organised village meetings as instrumental in spreading information about the Mtumba approach in their communities. Key informants were able to give a clear description of the approach and the reasons for its introduction.

> *"The main reason for introduction of Mtumba approach was to compliment other approaches. Mtumba approach is short, simple, uses minimum resource in terms of cost and uses of locally available materials."*
> Implementing Partner

Increased latrine coverage

Desk reviews of ward health data and information gathered in the surveyed areas prior to the Mtumba approach pilot indicated that sanitation coverage was low, with Masieda ward having 5% coverage in 2007.

In-depth interviews with local government officials in the surveyed areas revealed that, the district health departments in the surveyed areas have enacted bylaws that penalises households for not having a latrine (i.e. strongly encouraging total coverage irrespective of type of latrine). It follows true that, there are more poor quality latrines as compared to the improved ones and that the national average for improved sanitation coverage is now 12%.

By the end of the pilot period of the Mtumba approach from 2008 to 2011 in the three study sites, an average of 50% of surveyed households either made improvements to their existing latrines or built new sanitation facilities, while 50% either continued with their previous sanitation habits. This resulted in, by the end of the Mtumba approach pilot period, a total of

90% of surveyed households across all three communities having some form of sanitation facility. However, only 24% of surveyed households reported having an improved form of sanitation such as improved pit latrines, ventilated pit latrine, pour-flush latrine (although this is above the national average of 12%), while 64% of sanitation facilities are defined as traditional latrines. These traditional latrines are typically too shallow, with inadequate superstructures and mud or wooden floors, which means they are unhygienic, unsanitary, unpleasant to use, subject to deterioration and a potential breeding ground for flies and hookworm larvae. It should be noted that the above averages are masking variations in both sanitation coverage and quality between different wards:

Table 1: Total sanitation coverage and improved sanitation coverage in surveyed households

Ward	Total Sanitation Coverage of Surveyed Households	Improved Sanitation Coverage of Surveyed Households
Mambali Ward (Nzega District)	51%	32%
Masieda Ward (Mbulu District)	100%	24%
Mtoa Ward (Iramba District)	100%	11%

Behaviour change

The focus group discussions, key informants and the in-depth interviews in all three wards consistently indicated that during and since the piloting of the Mtumba approach in their communities, there have been positive changes in behaviour regarding the construction of new toilets, improving existing toilets and increased handwashing with soap. This observation of positive behaviour change was also noted by 80% of respondents to the household survey, citing key changes as the decline of open defecation, increased use of latrines and better understanding of the importance of disposing child faeces in particular. 63% of respondents associated these improvements in sanitation and hygiene behaviour with the introduction of the Mtumba approach in their wards, noting that the timing of these significant behaviour changes coincided with the intensive investment in the piloting of the approach in their area. Others respondents noted that the triggering component of the Mtumba approach, in the form of community meetings, had sensitised the community regarding the importance of sanitation and hygiene and had motivated households to improve their sanitation facilities.

Health indicators

Data collected from health facility data serving Mambali and Masieda wards between 2006 and 2010 indicate a broad trend in the reduction of diarrhoeal disease in these communities during a period overlapping with the Mtumba approach pilot period from 2008 to 2011. A quarter of respondents to the evaluation study mentioned a notable reduction in diarrhoea disease. However, broader district picture shows stable and/or increasing diarrhoeal episodes. The impact of Mtumba approach could be meaningful if the whole district is covered as the health gains will be at maximum able to show overall reduction in diarrhoeal diseases.

Cost and sustainability of sanitation

The total average economic cost for construction of an improved pit latrine in the surveyed areas, which was calculated to reflect the opportunity costs of resource use, was calculated at just over 53,000TSh. The evaluation indicated that the cost of constructing latrines recommended as part of the Mtumba approach were affordable for majority of households in the study sites as there were a range of safe sanitation options available.

> *"Most households can afford the Sungura latrine (SanPlat) type of technology which costs only 11,000 TSh."*
> Ward Leader, Masieda Ward

The Mtumba approach is argued to be sustainable as it focuses on demand creation and empowers community people with skills to advocate and construct improved latrines using locally available materials which are appropriate for the community contexts. This is one of the differences from other approaches such as PHAST, CLTS and PRA.

Challenges

A number of challenges were reported during the evaluation process regarding the piloting of the Mtumba approach.

Environmental factors such as type of soil and the level of the water table in some of the study areas presented challenges in constructed latrines to the correct specifications. Scarcity of water was often mentioned as affecting latrine slab construction, other sanitation purposes as people have to fetch water a far distance from their houses and work places.

Another reported challenge was the low political will and policy support from local government structures. There was a disjunctive relationship at district level between the health and water departments which jointly implement water, hygiene and sanitation activities in that there were no joint meetings, plans, supervision, monitoring and evaluation or reports. This led to limited and disjointed allocation of resources. Local NGOs in the study area were also not according high priority to sanitation and hygiene issues in their work as they didn't have entry points into these projects.

A key issue is that the district health departments are focussing on latrine coverage alone without consideration of latrine quality. This posed a challenge for animators encouraging the community to improve inadequate sanitation facilities which had previously been accepted by Health Officers.

> *"The district health department provides no or limited professional advice as they are only interested to see households are having latrines. To them any latrine is ok, one with a poor quality latrine and the other with good quality latrine to them they are considered to have complied with the district health department requirement for each household to have a latrine. Some people seem confused when we tell them on the need to improve their latrines as the Ward Health Officer who penalises households without latrines have inspected and accepted the latrine as it is".*
> Animator, Mambali Ward

One representative of the health department said that they were constrained by a lack of financial support.

> "*Due to lack of funds, we normally don't undertake hygiene and sanitation promotional activities in the council and we only do that during cholera or other diarrheal diseases outbreaks as at this time an emergency fund is made available to control the disease outbreak.*"
> Hygiene and Sanitation Coordinator, Nzega Council Health Department

Conclusions

Pilot implementation studies are an effective means to guide the design, planning, promotion of community participation, implementation, monitoring and evaluation of future scale-up of interventions. The evaluation of the piloting of the 'Mtumba approach' in the districts of Iramba, Nzega and Mbulu indicated that the Mtumba approach had strong potential for scale-up. Findings from the in-depth interviews, focus group discussions and desk reviews demonstrated that:

- The approach ensures sustainability through focussing on demand creation and empowering community people with skills to advocate and construct latrines
- Mtumba is effective in promoting hygiene, sanitation and community-led construction of improved latrines.
- Trained, empowered and motivated artisans and animators are important catalysts of behaviour change and can drive an increase in demand and construction of improved and affordable latrines which are appropriate to the community and the environment
- The role of water, sanitation and hygiene partners is key, such as the community-based organisations SEMA, HAPA, DMDD which supported the Mtumba approach pilot
- There is need for multisectoral coordination across all the relevant district departments and local government authority departments

The pilot also highlighted a key policy weakness in that current district health department policy does not specify acceptable latrine quality, which urgently requires addressing before the approach can be scaled up and integrated into national sanitation policy.

Recommendations

This evaluation indicates that the Mtumba approach is effective in promoting hygiene, sanitation and community-led construction of improved latrines that are affordable and suitable to the local environment, and therefore has the potential to be scaled up beyond the pilot area. Some recommendations are as follows:

Multisectoral coordination

The positive outcomes of the Mtumba approach could be increased by closer integration with the activities of the Ministry of Health and Social Welfare and Ministry of Water at district level. This will require working closely with local government departments to adjust attitudes and goals to create a more enabling internal environment that collaborates and work together on programme planning, implementation and monitoring and evaluation. Local government authorities should be involved from the beginning to foster shared ownership of the behaviour change programme and its successes.

The effective delivery of the MTUMBA approach will also require the health department in collaboration with water, hygiene and sanitation partners to invest in staff capacity building at the grassroots level. Such training and capacity building of a large number of artisans and animators can be time consuming and resource demanding, with openness to learning from NGOs and communities.

Resources

Scaling up the Mtumba approach will require the development of a uniform comprehensive behaviour change training guides that can be adapted to new areas. It will also rely heavily on skilled artisans and animators. The evaluation study noted that Artisan Groups in the pilot area often had inadequate financial, technological or facilitation capacity. It is vital to strengthen these Artisan Groups to become strong community organizations.

Local partners

The strength and uniqueness of the MTUMBA approach are its innovations in latrine options and technology, community mobilization, scaling up, institutional capacity building and programme management by local partners. If the programme continues to expand substantially, local partners will need to be provided with continued institutional support.