

THE WATER AND SANITATION (WASH) DRIVE IN TANZANIA: OPPORTUNITIES AND CHALLENGES HEAD TEACHERS FACE IN RURAL-BASED SCHOOLS

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Abstract

This paper is based on a study carried out in three rural-based primary schools in Dodoma, central Tanzania to investigate opportunities and challenges head teachers face during the implementation of school Water and Sanitation Hygiene (WASH) programme. The qualitative study used interviews, focus group discussions, observations and documentary review in a triangulation fashion to collect the requisite information. It established that the WASH programme benefits include construction of hitherto absent standard school toilets and training in sanitation management. The WASH schools also served as role models to other primary schools and the community. On the other hand, the primary schools under study had fewer toilet holes than required, and lacked running water and funds for WASH activities. Also lack of parental awareness of school WASH activities limited their support. As a result, the schools struggled to maintain and sustain the toilets' cleanness. Thus there is a need revisit the School WASH operational rules.

Key Words: Opportunity, Challenges, Head Teacher, School WASH Programme, Public Primary School

1. Introduction

Tanzania is one of the African countries working towards the accomplishment of the Millennium Development Goal (MDG) number 7, which targets to expedite the provision of sanitation and hygiene to its citizenry. In fact, Tanzania's 2010 Country Report on the MDGs indicates that the proportion of people served by the 19 urban water authorities and who use drinking water from improved sources increased from 74 in 2005 to 84 percent in December 2009. The report contends that attaining the MDG target for clean water supply service in the rural areas on Mainland Tanzania remains far-fetched despite some notable improvement being made in recent years when the population with access to clean and safe water in rural areas increased from 53.1 to 58.7 percent in 2009 (URT, 2011). The nation faces similar challenges in improving the state of water supply and sanitation in rural-based primary schools as well.

Under the Primary Education Development Programme Phase Two (PEDP II 2007 -2011), Tanzania also underscored having improved water and sanitation facilities at the school level. To maintain school attendance and reduce dropout rates and cases of truancy, especially among girls and—more significantly—to maintain pupils' good health and sanitary school environments, PEDP II fosters the construction of pit latrines with adequate facilities for female pupils, specifically to attain the desired pit latrine pupils ratio of 1:20 for girls and 1: 25 for boys. Initiatives aimed at attaining this goal went hand-in-hand with the construction of water points. These efforts were supposed to be done carried out jointly by the Local Government Authorities (LGAs) working closely with the school communities. In monetary terms, the Government of Tanzania (GoT) has committed itself to providing Tsh. 1.0 million per school for the construction of water points (United Republic of Tanzania [URT], 2006). The PEDP II is supposed to build on the gains made under the PEDP I.

The Primary Education Development Programme Phase One (PEDP I) managed to increase primary school enrolment from 4,842,875 in 2001 to 7,959,884 in 2006. Also, the Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) soared from 84 percent and 65.5 percent in 2001 to 112.7 percent and 96.1 percent in 2006, respectively (URT, 2006). This dramatic increment in pupil enrolment across the country has placed a heavy burden on the existing school infrastructure, particularly on Water and Sanitation Hygiene (WASH) facilities (SNV, UNICEF and Water Aid, 2011).

A recent cross sectional survey conducted by Nemes (2012) in three regions of Lindi, Morogoro and Tabora on Tanzania Mainland indentifies one of the pressing challenges head teachers face as lack of school toilets. Of the 52 rural-based head teachers interviewed, four (7.6%) maintained that their primary schools lacked toilets. As a result, pupils were forced to help themselves in the bush or return home to respond to a call of nature. For the latter option, once the pupils went home, they would not return to school. During the study it was established that the number of toilet holes available within school did not tally with the state-approved numbers. In fact, the available toilet holes were too few to provide sanitary conditions for the pupils using them. For example, Chienjere Primary School in Ruangwa district only had six pit holes of the required 40 holes. This situation forced far too many pupils to share one pit-latrine hole.

Findings obtained in previous studies such as those of O-Saki and Agu (2002) who focused on classroom interaction in primary schools in Tanzania school-children identified lack of basic facilities such as toilets, absence of doors in the toilets and unsanitary toilet conditions as persistent problems despite monetary collections earmarked for toilets cleaning being made. This scenario has negative effect on the schooling environment. A desk study carried out by the Water and Sanitation Programme (WSDP, 2012) found that poor sanitation costs Kenya 27 billion Kenyan Shillings (about US \$324 million) each year, or equivalent of US\$48 per Kenyan, which represents 0.9% of the National Gross Domestic Product (GDP). Similarly, Tanzania loses Tanzania 301 billion Tanzanian shillings (about US\$206 million) annually due to poor sanitation. This sum represents a cost of US\$5 per Tanzanian every year, which is 1% of the country's GDP.

To address these pressing problems in its schools, Tanzania, like other countries, is implementing the School WASH programme. In 2009, SNV, UNICEF and Water Aid formed a School WASH

partnership to cover 16 of Tanzania's districts. They were to work in close collaboration with LGAs. The benefiting districts were Bagamoyo, Chamwino, Hai, Kahama, Kasulu, Kibondo, Kigoma Rural, Magu, Makete, Maswa, Morogoro Rural, Mtwara Rural, Ngara, Siha, Singida Urban and Temeke. The data collected during the project's mapping exercise revealed that the conditions of School WASH facilities in the districts surveyed were unsatisfactory as the vast majority of the school WASH facilities rated as poor. Makete and Temeke districts had more than 505 of their schools rated as simply OK (SNV, UNICEF and Water Aid, 2011). Despite the availability of such information, there is a general lack of understanding of the specific challenges and opportunities associated with the implementation of WASH programme in these institutions. This knowledge is essential in understanding how the head teachers and the local authorities can improve school conditions, particularly through the WASH programme.

In fact, the study conducted by SNV, UNICEF and Water Aid in collaboration with the LGAs in 2009 was very general in nature and covered many districts for the sole purpose of mapping out what was there on the ground. This study, on the other hand, focuses on Chamwino district, one of the districts which had severely unsatisfactory conditions of School WASH. This focused study was designed to come up with detailed qualitative information on the opportunities and challenges associated with the School WASH programme. Indeed, little is known about the opportunities and challenges head teachers face when implementing the School WASH programme. This study also sought to come up with strategies likely to help school heads address the challenges they encounter in the implementation of the school WASH programme.

2. Research Objectives

The research was guided by the following three research objectives:

- i. To identify opportunities available to the head teachers during the implementation of the School WASH programme.
- ii. To investigate the challenges head teachers face during the implementation of the School WASH programme within their schools.
- iii. To come up with strategies that would help the head teachers address the challenges they encounter during the implementation of the School WASH programme.

3. Research Design and Methods

The study was conducted in Chamwino district, Dodoma Region, in central Tanzania, because the district is one of the areas implementing the School WASH programme. By the time the study was being carried out, the School WASH programme was being implemented in 14 public primary schools of Chamwino district (DEO Office, 2013). The district has also been dogged by unsatisfactory conditions of School WASH (SNV, UNICEF and Water Aid, 2011). The study sampled three public primary schools out of the 14 schools participating in the School WASH programme in Chamwino district, which represents 21 percent of the schools. All the three public primary schools were located in the rural area. Two sampling methods were used to select study participants: purposive sampling and stratified random sampling. Purposive sampling was used to

select three head teachers, three School Health Teachers (SHTs), one District School Health Officer and two school committee chairpersons. Stratified random sampling, on the other hand, was used to select 12 pupils who are members of the sanitation clubs. In each primary school visited the researcher collected a list of fifty pupils who were members of the school health club from the SHT. Then, she clustered the pupils into two groups, ensuring that there were 25 boys and 25 girls. From the two groups 12 pupils were randomly selected for each school. These were evenly divided between girls and boys. In all, 36 pupils from the three schools under study were co-opted into the sample; hence bringing to 45 the sum of the respondents selected using the two sampling methods.

Data gathering tools used in this study were interviews, focus group discussions (FGDs), observations and documentary review. Face-to-face interviews were held with the head teachers, school committee chairpersons and the SHTs and the DSHT. All the interviews were conducted in the respondents' offices but for those with the two school committee chairpersons, which were held in the head teacher's office of their respective schools.

The target with school committee members was to interview three school committee members. However, one of the three school committee chairpersons was not interviewed because he was not available when the researcher visited the school for the interview. He was grazing animals far from the school premise. With regard to the FGDs, in each of the three primary schools visited three groups were formed, each consisting of four pupils who were members of the school sanitation club evenly distributed between boys and girls). During the discussions, the researcher acted as the facilitator. The focus of the discussions was on the opportunities, challenges and opinion regarding improving the School WASH activities. The researcher also observed the state of toilets in the schools under study. Of particular interest was the availability of tap water, water storage facilities, other sources of water within or outside the school premises, number of toilet holes, state of the toilet buildings, presence of soap, brush, sanitary pads, toilet disinfectants, general toilet hygiene, and the number of pupils using toilets holes especially during break-time. Finally, documentary review was used to get data pertaining to the number of male and female pupils, and the number of male and female teachers in each school under study.

A pilot study was conducted in one primary school (not included in the main study) in Chamwino district, which is implementing the School WASH programme, to test the research instruments to ensure they were valid and reliable. The researcher asked for permission from the respective authorities before embarking on data collection. During the data collection process, ethical issues such as ensuring that the participants were not coerced, ensuring their privacy, and ensuring they provided informed consent were adhered to. The qualitative data of the study were subjected to content analysis.

4 Presentations and Discussion of the Study Findings

The findings of this study are presented and discussed in accordance with the study's three research objectives and their attendant questions:

4.1 Opportunities Head Teachers get during the Implementation of School WASH

The first research objective sought to identify opportunities availed to the head teachers during the implementation of the School WASH programme. The guiding question was: What opportunities are availed to the head teachers during the implementation of the School WASH programme? The information pertaining to this research question was obtained through interviews, FGDs and observation.

The first opportunity the School WASH programme availed was the construction of the school toilets for pupils. Responding, all the head teachers, SHTs, school committee chairpersons and the DSHO affirmed that now they had standard and durable toilets constructed because of their participation in School WASH programme. They thanked MAMADO, a Kiswahili acronym for Maji na Mandeleo Dodoma (Water and Development in Dodoma) in collaboration with Water Aid and AFRICARE for building standard school toilets. Some of the parents contributed in kind by providing labour during the toilet construction. These parents devoted their time and energy to digging toilets holes.

Before the School WASH, two (66%) of the three head teachers interviewed and one (33.3%) SHT reported that their primary schools were operating without toilets for about four consecutive years. This absence forced pupils defecate and urinate whenever they could find some privacy in the school environs. As a result, their schools were vulnerable to water-borne diseases, particularly in the rainy season and were, therefore, in danger of being closed down. This was confirmed by one of the head teachers:

... before the construction of these toilets... my school lacked toilets for about four solid years. The situation put my school at risk. In fact, it was about to be closed. By that time the majority of pupils were helping themselves in the bushes of the school premises... (Interview held in Chamwino District 24/07/2013).

Also one of the two school committee chairperson interviewed confirmed that pupils used the nearby bush to respond to both the short and long call of nature before the new toilets were constructed. The other school committee chairperson interviewed desisted from providing information regarding the toilet situation prior to the School WASH programme as he was new to the post and the area.

Data obtained from the pupils during the FGDs also confirmed that the new toilets were constructed under the School WASH programme. Also, 24 (66.6%) pupils who are members of school sanitation club indicated that before School WASH programme they faced a critical toilet problem. Thanks to the programme's intervention, that problem had dissipated. Moreover, in all the primary schools under study the researcher witnessed durable and quality toilets constructed under the School WASH programme. In each primary school visited, there were two types of toilets constructed: one for boys with five holes and five urinals; one for girls with five holes. In addition, each toilet was equipped with a 1,000-litre Simtank for storing water to ensure there was a steady supply of the precious liquid for sanitation purposes. In the girls' toilet of each school, sanitary pads were in each of the three primary schools visited. This was unexpected finding in the rural-based schools where such items would often be treated as luxuries.

The second opportunity associated with the School WASH project was training. During interviews with the three head teachers, three SHTs, two school committee chairperson and FGDs with 36 pupils (who are members of the school sanitation club), it emerged that they had all received training in hygiene. Generally, the study findings demonstrate that the training was offered during the implementation of the School WASH programme. The training was conducted in two phases, with MAMADO and the DSHO serving as facilitators. The first phase of two-day training focused on head teachers, the SHTs, school committee chairpersons, village chairpersons and the Ward Education Officer (WEO). The topics covered include hygiene education, strategies used to sensitise parents and community members involved in School WASH activities, security and maintenance of school WASH facilities, managing and guiding pupils' sanitation club. The second phase of another two-day training focused on pupils who were members of the sanitation club and the SHT. The training enables the beneficiaries to understand their responsibilities as implementers the School WASH. This implies that all the respondents were aware of their roles and responsibilities in implementing the School WASH.

The respondents also indicated that the School WASH project also made their school serve as role models for other primary schools and communities surrounding the school. In this regard, all the head teachers interviewed confirmed that their primary schools were now elevated into role model to other primary schools because of the way they had managed to improve their pupil's health and sanitation at the school. In consequence, people were visiting their schools to observe the standard toilets in place that had been non-existent before. In a similar vein, the school sanitation club made pupils become good ambassadors in their respective home and community at large by guiding and telling others about the importance of having quality toilets and avoiding defecating in open spaces and in the bushes, hand-washing before and after meals, brushing teeth, boiling water and washing hands after using the toilets. Such free information on personal and communal hygiene was helping to make a difference in the community. The members of the School Sanitation Club wear T-shirts bearing messages on hygiene.

4.2 Challenges Head Teachers Face in Implementing School WASH Programme

The second objective of the study was to investigate the challenges head teachers face during the implementation of the School WASH programme within their schools. The question used with regard to this objective was: What challenges do head teachers face during the implementation of the School WASH programme within their schools? Information regarding this objective was collected mainly through documentary reviews as indicated in Table 1.1 (See Appendix A). The challenge head teachers face during their implementation of the School WASH programme was found to be inadequate number of toilet holes.

Data displayed in Table 1.1 (See Appendix A) indicated that pit latrine-pupils ratio for male pupils ranges between 114:25 and 59:5 and that of girls ranges between 70 and 55:25. In actuality, the aspirations of the PEDP II is to have a pit-latrine pupil ratio of 1:20 for girls and 1:25 for boys. The implication is that even after the intervention of the School WASH project, both girls and boys

were still under-served by the available toilets. But this is far much better than the pre-WASH intervention as the MAMADO and Water Aid help rescued schools from imminent closure.

Another challenge the head teachers faced was an acute shortage of water. In all the three primary schools under study, there was no running water. In two (66.6%) of the primary schools, the researcher observed pupils fetching water from ponds using buckets and plastic containers about half a kilometre from the school premises. This water was not safe.

The remaining school let its pupils fetching water from a borehole by using 20-litre plastic containers drawn in a cow cart over a distance of two-three kilometres from the school premises. A lot of time was spent on fetching this water as people in village also depended on the same borehole. It costs them 30 Tshs to purchase 20-litres of water. Even then, the water so-purchased was mainly used for preparing school lunch and not for the new toilets. Information obtained from the school's head teacher and the SHT revealed that the new toilets constructed under the WASH project had been closed for a while because it was costly to buy water. Moreover, the pupils consumed a lot of time fetching water instead of concentrating on their studies. According to the head teacher of this school, they consequently decided to use the old toilets, which were in pathetic conditions, as a stop-gap measure. These toilets were commonly known as in Kiswahili language as "Choo cha Mauaji" (lit. Trans. "death toilets") due to lack of water in their school. During the field visit, the school was still awaiting a village meeting to be held to discuss the matter to avert the crisis.

During the FGDs, the pupils also complained that they were spending a lot of time to fetch water for the school toilets. According to the pupils, the problem was aggravated during dry season. The semi-arid conditions of Dodoma region occurred because the region sporadically receives rain from December to March and remains dry for long periods (Kambuga, 2013). This situation had resulted into low participation of the community in the sampled area of Makulu and Nzuguni wards in the construction of classrooms, teachers' houses, school toilets and teachers' offices.

At the school whose newly-constructed toilets have been closed, pupils complained that the alternative toilet they were using endangered their lives because it was in a pathetic condition. This forced them to beseech the authorities to re-open their newly-constructed toilet so that they could start using them again. The challenge remains how to get a steady supply of water for the toilets.

Furthermore, the head teachers of the schools under review complained that there was lack of special funds located at the school level for School WASH activities. Since their schools lack sources of funding, they depended on the parents' contributions, which in the rural areas often pose a challenge in collecting due to the poor background of the majority of the parents. Generally, the parents were requested to contribute Tsh 500 per month. Even then only a few parents were able to make that contribution, paltry as it may be. As the School committee chairperson explained:

...we are facing the difficulty of getting the contribution of Tsh 500 from parents for the School WASH activities. For example, our school has a total of 707 pupils... and today is 24th July, 2013... Only 50 pupils have managed to contribute Tsh 500Tsh for this month... (Interview held in Chamwino District on 24/07/2013).

During the interviews, both the head teachers and school committee chairpersons were able to account for the lack of parental voluntary contributions. They cited lack of awareness among

parents about School WASH activities. The parents also retorted that those who constructed the school toilets were also responsible for providing funding for the WASH activities. Also, the majority of the parents—as one expects generally in Tanzania’s rural-based communities—are poor, hence their inability to afford even the token amount of Tshs 500 per month. The mainly peasant farmers rarely thrive in a cash-based economy. The study findings are also in line with those of Nemes (2013) conducted in Tabora Municipality where it was established that economic difficulties made it hard for parents to pay even Tshs 100 per month for their children. As a result, the security guard was paid Tshs 30,000 as monthly wage with monies from the village council when parental contributions of Tsh 100 were supposed to cover that amount.

The most daunting challenge was found to be maintaining the toilets’ cleanness. For the primary schools, which were still using their newly-constructed toilets, the researcher found none had soap which pupils could use to wash their hands after using the toilets. In one primary school, the head teachers said they were using ashes; however, the researcher did not see and neither could she independently verify the validity of this statement. Although water storage tanks were installed in each toilet, the researcher did see water flow from the toilet taps for pupils to wash hands even without soap. According to the one of the SHTs water connection to the toilet taps depends on the fullness of the storage tanks. In one of the schools, there was a water bucket inside the toilet albeit without any water in it. Also, the toilets had a stench due to lack of funds for purchasing toilet cleaning equipment, stain removers and disinfectants as well as air fresheners. The researcher also observed some of the pupils entered the toilets barefooted. Findings obtained from School Sanitation Club during the FGD also shows that there were complaints about the absence of soap for washing their hands in their school toilets. The pointed out that they also need facilities such as mops, brushes and toilet cleansers and disinfectants. Similarly, during the mapping exercise in 16 districts of Tanzania, it was found that latrine hygiene was very poor in almost all the schools. Only nine percent of the schools were rated as having ‘clean’ latrines due to a number of factors, most notably lack of a clear plan or budget for latrine cleaning and maintenance. In most districts, school latrines were cleaned by pupils and this activity goes largely unsupervised (SNV, UNICEF, Water Aid, 2011A).

4.3 Strategies to Overcome Challenges Encountered during School WASH Programme Implementation

The third research objective aimed to come up with strategies that would help the head teachers address the challenges they encounter during the implementation of the School WASH programme. To achieve this objective, the study was guided by the following question: What strategies would help the head teachers overcome the challenges the encounter during the implementation of the School WASH programme? The necessary information was obtained from the three head teachers and two school committee chairperson interviewed. Their responses show that the majority of the parents did not volunteer during the Parents’ Day and school meeting largely due to either limited or lack of awareness about School WASH. This is not surprising because the study findings show that the training conducted during the implementation of School WASH programme generally excluded parents and the school community in general. To enlighten the villagers, village leaders

used public rallies to educate them the School WASH project. Usually these public meetings attracted the majority of the parents, and thus serve as an avenue for delivering the message.

However, the more significant intervention among these rural dwellers remains capacity-building for parents or guardian and community prior to and during the implementation of any intervention. Well-informed parents and community members become aware of their roles and their responsibilities, and hence are more likely to participate effectively during the implementation of that programme. Such capacity-building also creates a sense of ownership among the benefiting publics. Otherwise, what happened in Kenya could recur. For example, attempts by the head teachers to solicit for support from parents to provide funds for construction of the much needed classrooms and latrines were met with fierce resistance from the parents. Indeed, 74 (92.5%) of the head teachers indicated that they faced resistance from parents on these aspects (Serem and Kipkoech, 2012). No education had been carried out on the role of the parents prior the introduction of the cost-sharing parents who still believed education was free (ibid.). The fundamental purpose of training is to change people's values and attitudes, especially given that in the past, bureaucrats and experts did not actively seek community participation. On the whole, increased participation also leads to quicker completion of the process, as well as greater transparency and accountability in of the civil construction. Consequently, the quality of the resulting infrastructure is likely to be better and even dimes the prospect of resources being pilfered or squandered by corrupt local functionaries (Mosha, 2006).

Another strategy employed includes the use of School Sanitation Clubs to spread the benefits of the School WASH at home and in the community. Dash (2008) contends that even though there are difficulties, a wise head should make efforts to develop the school - community relationship. Community relations start with the relationship with the pupils, which spread outwards to the parents and then penetrate the wider community the school serves: "It must always be remembered that parents' attitude towards the school is strongly influenced by the stories their children bring home about the events of the school day" (Dash, 2008, p. 258)".

5 Conclusion

The establishment of the School WASH programme in Tanzania constitutes a good attempt; however, the construction of school toilets alone is not enough. This noble initiative must go hand-in-hand with making water accessible at the school level on a sustainable basis. Without a steady water supply, maintaining toilet hygiene is a nightmare. In fact, toilets in one of the schools under study are facing the danger of turning into a white-elephant when the pupils desperately need to resume using the facilities closed due to lack of water. There is also a need to set aside funds for schools located in rural areas where the majority of parents are living under abject conditions for the maintenance and cleaning of the toilets. Such money can be earmarked for buying soap, detergents, disinfectants, air fresheners and stain-removers, as well as brushes, mops, buckets and general maintenance of the School WASH facilities. The members of the School Sanitation Clubs also need funds for buy facilities they can use for demonstrative purposes in their respective schools and their communities. Finally, there is need for concerted efforts to provide community education to sensitize community members on the School WASH activities and the importance of their attending school meetings and participation in School WASH activities. Parents are also responsible for buying shoes for their children so that they do not have to enter and use the toilets with barefooted.

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Appendix A**Table 1: Pit Latrine-Pupils Ratio in Primary Schools Under Study**

Name of School	Number of Pupils		Number of Pit Latrine		Pupils Pit Latrine Ratio	
	Boys	Girls	Boys	Girls	Boys	Girls
Makoja	457	350	4	5	114.25	70
Ikowa	254	221	4	5	63	55.25
Kawawa	238	332	4	5	59.5	66

Source: Head Teachers' Offices in Primary Schools under Review (2013).