

ETHICS AND FAECAL-SLUDGE MANAGEMENT IN AFRICA

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Abstract

WASH supply to poor rural and urban populations has remained a nagging problem for Africa and other developing nations even in the presence of a global consensus that human right to safe WASH is derived from the right to adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity. While it is universally accepted that it makes economic, social, political and environmental sense to promote adequate sanitation access, it is also important to examine whether the sanitation services being promoted in Africa is adequately dignifying especially in terms of access quality as against universal access. So, we specifically examined if any form of rights and choices exist in the context of inaccessibility and/or poor accessibility to sanitation services. Also, we investigated the effects such rights and choices could have on FSM value chain, and scale up and sustainability of sanitation services, programmes and promotions in the continent. For instance, should those who cannot afford high standard sanitation access be offered less standard options? The paper concludes that lack of or inadequate education could promote information asymmetry and limit the negotiating power and choices of households. Also, the economic power of households is a major determinant in the quality of sanitation access and the choices that they could make. Majority of the respondents prefer a better and modern capture technology to what they currently use. Capture technology choices could be predicted by household monthly income, education, occupation, affordability, house type, daily water use cost, and number of males/females in the household. The logical linkages between sanitation and ethics are critical for achieving dignifying, effective, efficient, scalable and sustainable sanitation services delivery. This linkage when perfectly established has the potential to address the nagging challenge of sustainability and scalability of sanitation models being promoted in the continent. Without an ethical understanding of sanitation in the continent, all efforts towards sector sustainability and scalability will continue to be short-term, haphazard, and ephemeral.

Keywords: ETHICS, SANITATION CAPTURE TECHNOLOGY, SANITATION ACCESS, QUALITY OF ACCESS

INTRODUCTION

United Nation's Article 1 of 1948 states that all human beings are born free and equal in dignity and rights and that they are endowed with reason and conscience and should act towards one another in a spirit of brotherhood. This is known as the Universal Declaration of Human rights. Human values have their roots in a single, universally-accepted premise: the inherent dignity of every human being. No wonder sanitation has become a fundamental human right in the growing number of human right issues in the world. But despite this, WASH supply to poor rural and urban populations has remained a nagging problem for Africa and other developing nations even in the presence of global consensus that human right to safe WASH is derived from

the right to adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity.

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, just recently, released a 2012 update on the progress made on drinking water and sanitation around the world. This report highlights the progress made towards achieving target 7c, i.e. reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation. The report contains the cheering news that, as of 2010, the target of drinking water has been met with the indication that more than 2 billion people have gained access to improved drinking water sources since 1990. Even though, there are still about 780 million people without access an improved drinking water source, the achievement recorded so far has been attributed to commitment of government leaders, public and private sector entities, communities and individuals who saw the target not as a dream, but as a vital step towards improving health and wellbeing.

However, on the other side of the coin, the world is still off-track for sanitation target despite the fact that about 1.8 billion people around the world have gained access to improved sanitation since 1990. Most especially, Sub-Saharan Africa is lagging behind that than other regions of the world. While acknowledging the efforts and achievements recorded so far in the area of sanitation, Ban Ki-moon, Secretary General of United Nations, suggests that it is essential to accelerate progress in the remaining three years before the MDG deadline.

Ban Ki-moon's suggestion is that of hope and possibilities. It is rather possible that Africa can beat MDG of sanitation in the next three years if only we can galvanize the energies of all the stakeholders towards edifying, dignifying and sustainable sanitation solutions. It is regrettable that most of the sanitation solutions upon which progress has been assessed are really not very admirable solutions. Most of the solutions promoted in Africa are based on latrines which are not actually their choice position on the sanitation ladder. Even with all these efforts, JMP data shows that as at 2010 sanitation coverage in Sub-Saharan Africa has remained the poorest (estimated at 30%) with only 4 percentage points change between 1990 and 2010. Moreover, JMP's report shows that, in fact, the number of people practicing open defecation has actually increased by 33 million since 1990.

While these statistics could be disheartening and embarrassing, it provides an ample opportunity to revolutionize the African toilet. Revolutionizing the African toilet will entail making the toilet more attractive to the African in terms offering her/him cutting edge, long-term and sustainable sanitation solutions/technologies that can assure his/her human rights and increase his/her self-esteem and dignity. Such a solution might be costly, but all the stakeholders can work together to make it available, accessible and affordable.

The very first important aspect of faecal-sludge management is faecal-sludge collection and a whole lot of low cost capture technologies are being promoted in the name of improved access. Despite the huge amount of resources spent on promoting and piloting these technologies, more people in rural/urban areas of Africa are still defecating openly. Currently, as exemplified by the statement of the WASH Ministers during their High Level Meeting in Washington DC in April 2012, the emphasis of the global community is on universal access only and not on qualitative access.

Recognizing therefore, as it is universally, that it makes economic, social, political and environmental sense to promote adequate sanitation access, this paper attempts to examine whether the sanitation technologies being promoted in Africa is adequately dignifying especially in terms of quality of access as against universal access. The paper intends to unearth the values/principles that govern the actions and decisions of individuals or groups with regards to sanitation choices and/services. The logical linkages between sanitation and ethics are critical for achieving dignifying, effective, efficient, scalable and sustainable sanitation services delivery. This linkage when perfectly established has the potential to address the nagging challenge of sustainability and

scalability of sanitation models being promoted in the continent. Without an ethical understanding of sanitation in the continent, all efforts towards sector sustainability and scalability will continue to be short-term, haphazard and ephemeral.

LITERATURE REVIEW

Ethics

Ethics is complex and often perplexing and controversial, defying concise, clear definition. It is concerned with what is right or wrong, good or bad, fair or unfair, responsible or irresponsible, obligatory or permissible, praiseworthy or blameworthy (Pritchard, 2006). According to Gabr (2006), ethics is grounded on socio-cultural, philosophical or religious convictions of what is good or evil. It is considered as the effort to find justifiable grounds for distinguishing what is right or wrong in human actions and ways of life. It also incorporates social dimensions as it is concerned with justice, rights, respect for human dignity, autonomy of the individual and respect for the community. Ethics examines the moral validity of choices.

According to the UN Millennium Project Task Force, access to water and sanitation is a moral and ethical imperative rooted in the cultural and religious traditions of societies around the world and enshrined in international human rights. While there are plethora of studies [e.g. Porto (2004); Trondalen and Munasinghe (2004); Liu *et al* (2011); etc] that have looked at ethics of water, there have been limited efforts aimed at study of ethics of sanitation and hygiene.

Universality of WASH and Human Values

The UN Millennium Declaration (UN, 2000) states that there are fundamental values essential to international relations in the 21st century that are “shared values” among the UN member countries and these include freedom, equality, solidarity, tolerance, respect for others and shared responsibility. These shared values have ethical/moral undertone implying good or bad, with moral duty/obligation; and principles of conduct governing an individual or group (UN-HABITAT, 2006).

Human values have their roots in a single, universally-held premise: the inherent dignity of every human being. A focus on human values evokes the inner source of motivation for ethical and moral choices, bringing about changes of attitude from the inside out leading to changes of behaviour thereafter. When human values are brought forth, a new level of shared meaning occurs, resulting in aligned, effective actions and results. According to UN-HABITAT, when we practice human values in development, they become motivators that help us do our best and reinforce good character, morality and ethics. Human values emphasize the responsibilities that enable aspiration of WASH for all to be protected, safeguarded and fulfilled.

Sanitation, Hygiene and Health

Porto (2004) shows that the lack of access to safe drinking water and sanitation is directly related to poverty and indirectly to the inability of governments to invest in these systems; and therefore, there exists a high correlation between poor access to safe water, sanitation and hygiene with poor health. Diseases related to poor hygienic habits and sanitation are usually due to poor technologies and insufficient quantities of water for hand washing, bathing, laundering, and cleaning of household utensils.

It has been documented that sanitation and hygiene have very huge impact in reducing the burden of diseases. Table 1 below shows that interventions in sanitation and hygiene have the potential to reduce the incidence of diarrhoea by 35% and 33% respectively, with a combined impact of 68%. This insight calls for elevated status to be accorded sanitation and hygiene by global stakeholders just like it is accorded to HIV/AIDS, Malaria, etc.

Table 1: The effect of interventions on the reduction of diarrhoeal diseases

<i>Intervention</i>	<i>Approximate reduction in diarrhoea (%)</i>
Reliable drinking water quality	15
Supplying adequate quantity	20
Improved hygiene	33
Improved sanitation	35

Source: Esrey (1996).

METHODOLOGY/APPROACH

Should those who cannot afford high standard sanitation access be offered less standard options? What rights and choices exist in the context of inaccessibility and/or poor accessibility of sanitation services? What effects could such rights and choices have on faecal-sludge management value chain, scale up and sustainability of sanitation services, programmes and promotions in the continent.

In order to address these questions, we purposively sampled 30 respondents (using a survey instrument) who use EcoSan toilet facilities in two locations in Burkina Faso. The locations were Goussala (a peri-urban area of Ouagadougou) and Deltenga (a rural area in Koupela). 15 households were surveyed in each of the locations. The respondents were presented with some existing sanitation/capture technologies and then asked to choose the most desired or the one they consider good for their long term welfare. Thereafter, their choices were further subjected to deeper investigations on factors responsible for or influencing their choices. Data from the survey were analysed using SPSS software and involved descriptive analysis and regression analysis.

RESULTS AND DISCUSSIONS

Characteristics of the Respondents

An analysis of the religious faith of the respondents shows that 53.3% of them are Christians, while 46.7% are Moslems. Majority (93.3%) have no formal education, while the remaining 6.7% attained primary education. Lack of or inadequate education could promote information asymmetry and limit the negotiating power and choices of households. About 80% of the respondents are farmers, 16.7% are traders and 3.3% are engaged in informal artisanal activities. The minimum age of the respondents is 28 years, while the maximum age is 65 years with an average age of 47.5 years. The minimum and maximum household sizes are 2 and 34 respectively, with an average household size of 10.

The minimum income per month for households is FCFA 6,200 and the maximum is FCFA 375,000. About 86.7% of the households earn a total household income of less than FCFA 100,000 per month. Furthermore, only 6.7% of the households earn between FCFA 100,000-199,999 in total income per month, while 3.3% of the households earn between FCFA 200,000-299,999. The remaining 3.3% of households earn between FCFA 300,000-399,999 per month in total income. The economic power of households is a major determinant in the quality of sanitation access and the choices that they could make.

Desired Qualities of Capture Technology

Respondents were asked to identify their desired qualities of a good toilet. Majority (86-100%) of them identified the following expected qualities from a good toilet – no smell, easy to clean, easily used by children, privacy, likable by others, fewer assistance for repair or low O&M costs, attached (within) to the house, and a sitting version (see Table 2). 86.7% of the respondents rejected a squatting version of capture technology, and incidentally Ecosan technology in the survey areas uses a squatting capture technology.

Table 2: Responses to the desired quality of toilet and applicability to own toilet

Quality	Response (%)			
	<i>Desired quality</i>		<i>Applicable to own toilet</i>	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
No smell	100	0.0	73.3	26.7
Easy to clean	100	0.0	96.7	3.3
Easily used by children	96.7	3.3	33.3	66.7
Privacy	100	0.0	100	0.0
Liked by others	100	0.0	93.3	6.7
Fewer assistance for repairs or low O&M cost	100	0.0	93.3	6.7
Within the house	90.0	10.0	0.0	100
Sitting version	86.7	13.3	0.0	100
Squatting version	13.3	86.7	100	0.0

Choice of Capture Technology

All (100%) the interviewed respondents noted that they did not chose the current sanitation capture technologies that they are using. These were recommended by donor/development agencies and their project teams and were attracted by subsidies which come along with their programmes. We presented the respondents with pictures of both improved and unimproved sanitation capture technologies. They were asked to consider their existing facilities and choose what they would really love to have from 12 different capture technology pictures without recourse to cost or other implications. Interestingly, 80% of the respondents chose sitting versions of improved capture technologies while only 20% chose squatting versions.

Respondents adduced various reasons for their choices. Those who chose the sitting versions noted that they look more beautiful and likable; amenable to ease of use by children, pregnant women and old people; easier to install within the house; and minimizes contact with faecal matter. Respondents who chose the squatting versions are weary about the problem of water for flushing; separation and reuse of excreta and urine; or simply because its looks like ecosan and they prefer to squat. However, it should be noted that those who like the squatting capture technologies chose a technology over and above what they currently have.

Consequently, respondents were asked if they could afford the chosen technologies. Majority (86.7%) opined that they cannot afford it, while 13.3% have the opinion that they can afford it. Those who opined that they cannot afford the cost of their chosen technologies, however, have the view that they can afford it the long-run. They revealed that they should be able to payback the cost of the chosen technology within 5-7 years on the average.

Factors Influencing Household Choice of Capture Technologies

The paper fitted a multiple regression to determine the predictors of household choice of capture technologies. The SPSS output of this regression is presented at the annex. The coefficient of multiple determination is 0.611; therefore, about 61% of the variation in household choices is explained by household monthly total income, educational attainment, respondent occupation, affordability, type of house owned, water use cost per day, and the number of males and females in the household.

This equation may not be too useful in making predictions since the R-squared is not so close to 1, but it is clearly an insight. In any case, at 5% significance level (as can be observed from the anova table in the annexure), there exists evidence that to conclude that at least one of the predictors is useful in predicting household choice of capture technologies. Note from the results in the annex that occupation of respondents, household daily water use cost, and number of males and females in the household are significant (at most 10%) in determining household choice of capture technologies.

CONCLUSION

There is the need for sector actors in Africa and across the globe to start considering sanitation as an ethical issue in sanitation practice. Although access is good, qualitative access is better. And to guarantee qualitative access, there is the need for a consensus on a minimum and acceptable top-of-the ladder standard for access for every human being. Sanitation has become so fundamental to human existence that if we continue to promote non-dignifying technologies, then we risk inflaming the impact of current epidemics afflicting citizens of the continent. Such a situation will continue to impact negatively on the economic and productive wellbeing of the continent and its people.

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ANNEXURE

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Total income per month, Highest Educational Attainment, Occupation of Respondent, can you afford the preferred technology and its installation?, Type of house, Household water use cost per day (FCFA), Number of Males in household, Number of Females in household ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: type of technology choice

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782 ^a	.611	.463	.298

a. Predictors: (Constant), Total income per month, Highest Educational Attainment, Occupation of Respondent, can you afford the preferred technology and its installation? Type of house, Household water use cost per day (FCFA), Number of Males in household, Number of Females in household

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.454	.513		.887	.385
	Occupation of Respondent	.230	.106	.362	2.169	.042
	Type of house	-.147	.146	-.163	-1.010	.324
	Highest Educational Attainment	-.252	.254	-.157	-.990	.333
	can you afford the preferred technology and its installation?	.183	.178	.155	1.026	.317
	Household water use cost per day (FCFA)	.001	.001	.315	1.769	.091
	Number of Males in household	.106	.024	.831	4.491	.000
	Number of Females in household	-.043	.018	-.493	-2.388	.026
	Total income per month	6.595E-7	.000	.126	.634	.533

a. Dependent Variable: type of technology choice