WATER, SANITATION AND HYGIENE CONSUMER PERCEPTION SURVEY CONDUCTED IN KAWEMPE DIVISION,KAMPALA CITY.

ENVIRONMENTAL ALERT

CITIZEN REPORT CARD 2017.

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FOREWORD

Environment Alert in collaboration with Water Aid Uganda, Kampala Capital City Authority and African Evangelistic Enterprise (AEE) are implementing a project titled, *'Kampala Slum Transformation Initiative (KASTI) in Kampala City*. In the bid to measure the quality of service delivery, Environment Alert conducts periodical consumer perception surveys selected parishes where the project is implemented. This helps in understanding and appreciating community perceptions in respect to Water, Sanitation and Hygiene (WASH) services delivery by the various Government duty bearers. The survey further gives the actors pointers on the gaps around which interventions should focus.

This Citizen Report Card presents community perceptions of WASH services delivered by Government duty bearers *(including among others Kampala Capital City Authority, National Water and Sewerage Cooperation)* in Kawempe Division based on the survey conducted by Environmental Alert. Thus, the overall objective of the survey was, *'to establish the current status of WASH and Knowledge, Attitudes and Practices (KAP) around WASH in the slum areas of Nakawa and Kampala Central Divisions.'*

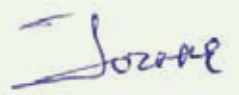
The Citizen Report Card will be used as an evidence based engagement tool. The specific areas covered in the survey include: *access to clean and safe Water, solid waste management systems in the community, current situation of drainage system, toilet coverage as well as access to cesspool emptying services, and level of sensitization efforts around WASH*.

This Citizen Report Card is published within the framework of the KASTI project that is funded through Water Aid Uganda by Comic Relief. The project aims at, *'improving school children's access to safe water and sanitation, increase hygiene understanding amongst both the school children and the slum dwellers, promote the construction and use of public latrines, and support communities to advocate for improved living conditions as well as build capacity of urban authorities in*

three divisions of Kampala to enable them respond to these needs.' The project is being implemented in 5 Wards of Bwaise I, Bwaise II, Bwaise III, Kyebando and Mulago III.

The key results and related recommendations from the survey conducted in 5 wards of Kawempe Division under Kampala Capital City Authority are presented in this Citizen Report Card.

Environment Alert is optimistic that the findings will inform subsequent development intervention by WASH sector duty bearers and other development actors to deliver better services to the community. I hope you find the reading both informative and interesting.



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Executive Director, Environmental Alert.

1 INTRODUCTION

1.1 BACKGROUND

There is a lack of knowledge as regards to users' satisfaction in relation to WASH services in urban areas. It is of paramount importance to understand the factors that influence users' satisfaction, as it affects the way WASH facilities are used and maintained. The solution to this is coming up with a Citizen Report Card.

Citizen Report Card (CRC) is a participatory survey tool that is used to get feedback from the quality and performance of public services in order to raise awareness and ultimately bring about reforms in the public service delivery system. A key feature of the CRC method is that survey findings are placed in the public domain through the use of media and public meetings thus making it an effective instrument to promote transparency, responsiveness and public accountability.

Environmental Alert in partnership with African Evangelistic Enterprise, Kampala City Council Authority (KCCA) is implementing a WASH project titled "Kampala Slum Transformation Initiative (KASTI)." This project is being funded by Comic Relief through Water Aid Uganda. The project is intended to improve school children's access to safe water and sanitation, increase hygiene understanding amongst both school children and slum dwellers, promote the construction and use of public latrines, and support communities to advocate for improved living conditions as well as build capacity of urban authorities in the three divisions to enable them respond to the community's needs.

Environmental Alert intends to conduct hygiene and sanitation needs assessment survey in Kawempe Division of Kampala district in the target project parishes to assess the level of community satisfaction towards delivery of WASH services to their communities. Thus, EA will come up with a Citizen Report Card for the targeted parishes highlighting key community pressing issues and which ones require prioritization. The specific services to be reviewed include:

- ♣ Access to clean and safe Water
- ♣ Solid waste management systems in the community
- ♣ Current situation of drainage vs available drainage system
- ♣ Toilet coverage as well as access to cesspool emptying services
- ♣ Level of sensitization efforts around WASH.

1.2 JUSTIFICATION OF THE STUDY

TThe Citizen Report Card provides a clearer understanding of WASH issues from the perspective of the communities, whether or not they are satisfied with the current level of WASH service delivery. In addition, solutions to address the identified gaps will be sought. The survey will also help establish the current status of sanitary facilities in the target parishes in terms of toilet facilities per zone, available clean water sources, and solid waste management facilities in place as well as state of existing drainage channels in the community.

The Citizen's Report Cards will be used to create an evidence base for monitoring progress and responses to community needs and demands and informing the development of advocacy agendas. The developed advocacy agendas will be advanced through the different forums and directly with political leaders at National and Capital City levels

1.3 OBJECTIVES OF THE SURVEY

The overall objective of the survey is to establish and assess the status of WASH in the target parishes ***(Bwaise I,Bwaise II, Bwaise III, Kyebando and Mulago III)*** of Kawempe Division and identify gaps that need to be addressed.

The specific objectives and three-fold:

i. Establish the status of hygiene and WASH facilities in the slum areas of; Bwaise I,Bwaise II, Bwaise III, Kyebando and Mulago III of Kawempe Division;

ii. Assess community Knowledge, Attitudes and Practices around WASH and community perceptions in respect to WASH services by duty bearers in Kawempe Division;

iii. Determine the community's level of satisfaction in regards to WASH service delivery.

2 METHODOLOGY

A mixed cross-sectional survey design of quantitative and qualitative data collection methodologies and desk reviews was used for this assignment. These included desk research, training (focus group discussions), semi-structured interviews, key informant interviews and technical assessments. These included data collection using a semi-structured face-to-face administered questionnaire, key informant interviews and desk document reviews and technical assessment of existing facilities. After data collection, a situational analysis was performed. A comprehensive literature search was carried out, covering the topics on WASH. These included refereed journal articles, research reports, consultancy reports, policies and legal framework regarding environmental management in Uganda, with emphasis on Kampala.

Using Kish and Leslie modified sample size formula, N = [Z2 x p (1-p) / e2] * d (Kish 1965), a total of 400 respondents has been calculated to be interviewed in each of the parishes of Kawempe division (80 respondents per parish). An approximate of 10 key informant interviews was conducted in inclusive of staff of Water and Sanitation. Different software packages like Arc GIS software, IBM SPSS Statistics 22 and MS Excel were used for data analysis.

3 DESCRIPTION OF STUDY AREA

The study was carried out in five parishes namely Bwaise I, Bwaise II, Bwaise III, Kyebando and Mulago III as illustrated in Figure 1.

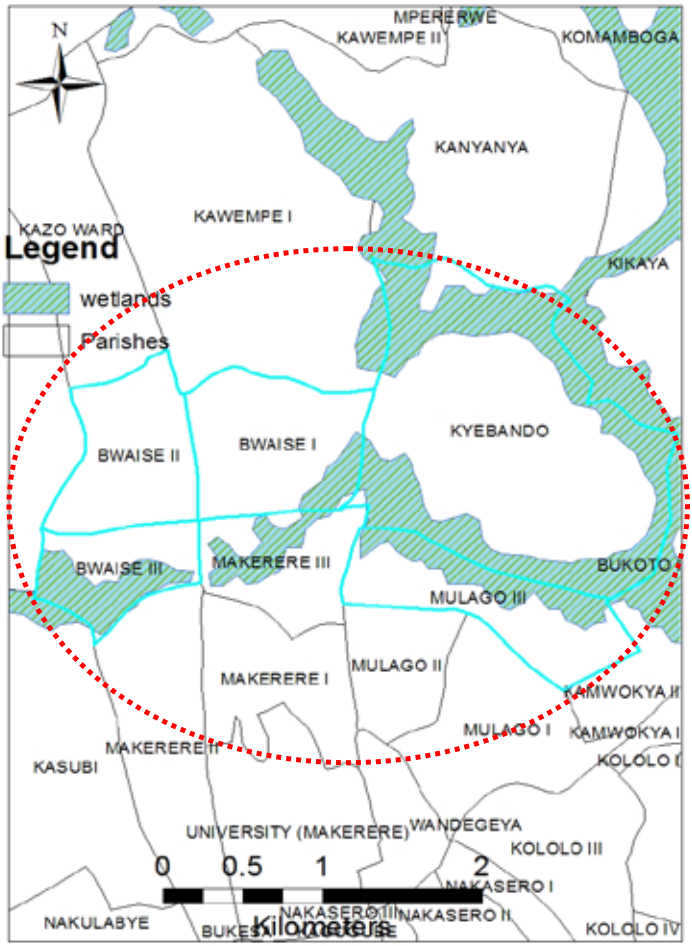

Figure 1: Location of the selected parishes.

The climate of the selected areas is characterized with a tropical wet and dry climate. The average temperature for Kampala is 21.9°C, with an annual range of 2.4°C with relative humidity of about 53 to 89%.

The geology of the selected area falls within the Precambrian rock system with the exception of the small portions underlain by recent deposits of alluvial and lacustrine formations.

The major vegetation types in Kawempe are normally found in the unclaimed swamps covered by both grasses and sedges. The most common species are papyrus including, ***Miscanthidium violeceum, Phragmites maurtianus, Cyperus latifolius and Typha australis***.

With the land tenure system, majority of the land is privately owned while the rest is owned under Mailo tenure by Buganda Kingdom. The Kingdom is the single biggest land owner in the division.

The main source of livelihood in the selected slums areas is employment income which is accrued from self-employment and formal employment sectors. Some of the investments in the city are small scale industries, shopping and office complexes.

4 RESULTS

The survey was intended to ascertain the knowledge, factors that influence the attitudes and practices of the community people, and service providers and their contribution to the WASH situation in Kawempe.

4.1 SOCIAL ECONOMIC CONDITIONS

The socio economic condition of most people living in the selected parishes is generally poor because of the lack of basic social amenities; functional skills, proper education, source of the income, hygiene and health resources. And with the selected parishes, the people are less considered as slum dwellers.

4.1.1 AGE AND HOME OWNERSHIP

The respondents interviewed were grouped in age groups to make a total of 5 age groups. The survey targeted adults only from the age of 18 years and above. From the survey, it was found put that the most respondents were in the age group of 25 to 29 years of age with a valid percentage of 30% as presented in Table 1.

Table 1: Age group of the respondents.

Age group	Frequency n= 400	Percent
18-24	52	12.5
25-29	120	30.0
30-34	99	24.8
35-39	60	15.0
40+	69	17.3

In the studied parishes, most (65%) of the household do rent while 35% own their homes (landlords). Of these, 76% were male heads of the family and 24% were female heads while are male.

Table 2, reports that most household people are in the numbers of three followed by four household people as shown. When added the number of people in households with more than three people totals to 76% of households. The increase in the number and the size of the people may be explained in terms of the natural growth of population and net in migration.

Table 2: Total number of people in a household.

Number of peoplein house	Frequency n = 400	Percentage
1	20	5
2	74	19
3	100	25
4	91	23
5	42	9
6	48	12
7	14	4
8	4	2
10	3	1

4.1.2 EDUCATIONAL STATUS

Nearly 11% of sample selected respondents are illiterates those who didn't go to school meaning that they are unable to read and write. Among the literates majority of the respondents are confined to school education. 24% of sample respondents studied up to primary level and 36 % studied up to secondary level of school education (Figure 2). About 29% had access to tertiary education. Slum communities have low earning. They have limited formal education facilities. However, if the percentage of tertiary, secondary and primary is added together to make 89% that means that the literacy level is high. This is a positive indicator for environmental sanitation education and enforcement of sanitary regulations components as majority of the people can comprehend any effort to promote hygienic urban environment both through public education and enforcement of sanitation laws.

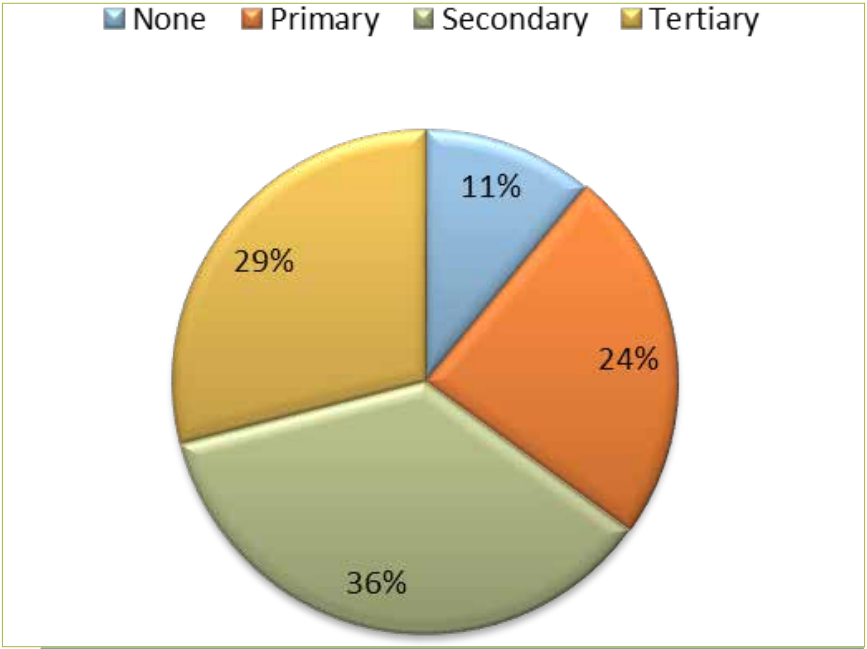

Figure 2: Level of education attained by the respondents in Kawempe division.

4.1.3 EMPLOYMENT LEVELS

Around 20.5% of the families surveyed had no employment, 23% had formal employment and 50.5% had no formal employment refer to Figure 3. This is the reason why slum areas illustrate high rates of poverty, illiteracy and bad health status. Dwellers of slums engaged in informal labor through which they cannot earn much. They work in environment which is harmful to them. This fact forces them to work in informal sector. Employment is particularly hard to find for unskilled rural migrants.

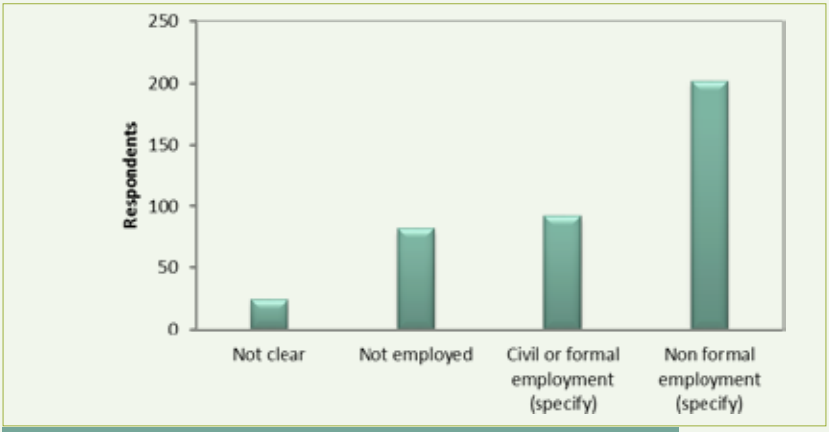

Figure 3: Level of employment in Kawempe division.

4.1.4 INCOME LEVELS

Overall, 5% households earn less than 51,000 UGX per month, 9% earn between 51,000 to 100,000 UGX, 33% earn more than 200,000 UGX per month refer to Figure 4. 28% of the households do not know or failed to respond on issues concerning income levels reason could have been because of the high level of informal employment. The growing numbers of the urban poor find insecure shelter in overcrowded slums where lack of water and sanitation, electricity, employment, security and social inclusion are the norm. Survival has become the major concern of the urban poor. Women and children are often the most vulnerable.

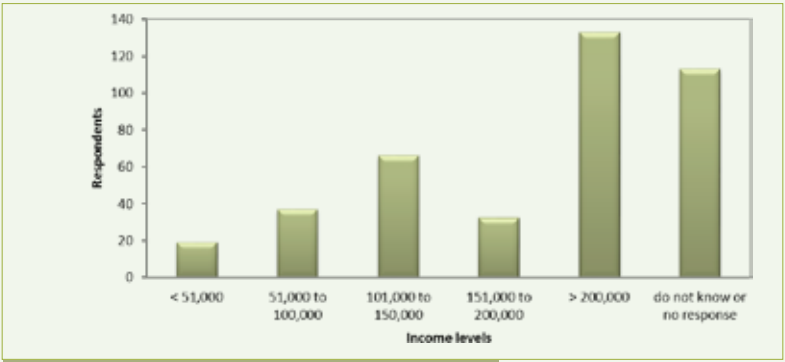

Figure 4: Income levels of respondents.

4.1.5 GENDER CONSIDERATIONS

Women are responsible for water collection, the general cleanliness of the home and its surroundings, as well as the care and health of children. This is the reason why the majority of the respondents were females (63%) refer to Figure 5. This clearly shows that it's the females who normally stay at home. Poor access of water and sanitation facilities can increase vulnerability of women and girls when trying to access these services. Women and girls often hold exclusive responsibility for household water collection and storage because of social gender norms.

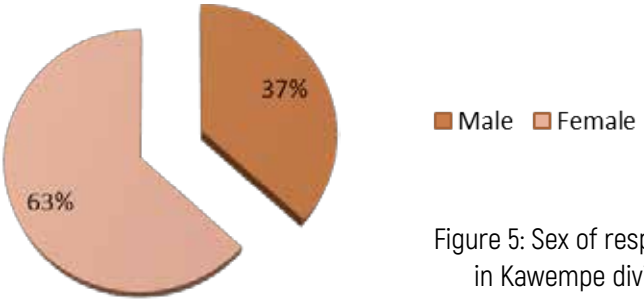

Figure 5: Sex of respondents in Kawempe dividion.

WASH is also essential for social and economic development, contributing towards gender equality and the realisation of women rights. This is therefore another reason why 57% of the toilet cleaning was done by the females followed by 37% being cleaned by both males and females. Only 4% of males were reported to clean the toilet as illustrated in Figure 6.

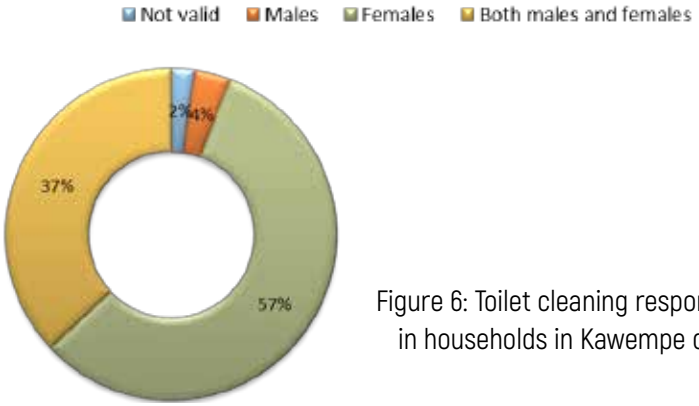

Figure 6: Toilet cleaning responsibility in households in Kawempe division.

4.2 SANITATION

Access to proper sanitation facilities has been found to vary among the surveyed parishes (Table 3). The survey first finding is that 99.4% of the respondents reported having access to sanitation facilities. However, one has to note that much as the accessibility of toilet facility this high, a large percentage of this are shared with other families (see Table 3) and this comes with challenges. Shared sanitation is a risk factor for diarrhoea in children.

Table 3: Percentage accessibility of toilet facility.

Accessibility	Frequency n=400	Percentage
No toilet/latrine	1	0.3
Shared with other families	281	70.3
Private toilet/latrine	111	27.6
Public toilet	6	1.5
No response	1	0.3

Over 70% of the respondents (281) in Table 3 reported the use of shared sanitation facilities, followed by private (27.6%) and public facilities (1.4%). Shared facilities were the most commonly used by both tenants and landlords. The use of private facilities was most common among landlords.

Added to that, of the shared toilet or latrine, 28% reported a shared facility of more than 6 households and 58.8% more than 3 households but less than 6 households meaning that more than half of the landlords use a shared facility (Table 4). Shared latrines could be the best option to advocate for in densely populated areas of slums because of space constraints; however their cleanliness is an important factor to take into account and needs to be looked at critically.

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Table 4: Number of household sharing a facility.

Shared facility of household	Frequency n=400	Percentage
Not clear	52	13
< 6 households	235	58.8
> 6 households	112	28
Less than 3	1	0.2

Less than 1% (0.3%) of the respondents reported no toilet use hence use of flying toilets or open defecation (Figure 7) and 0.3% didn't respond to that. In Bwaise I parish, the situation is even worse, where 22.9% of the respondents are still practicing open defecation and majority of the latrines are located in the low lying area and elevated (Table 5). The condition of toilets in this slum has been found to be very poor with dilapidated pit latrines (see Figure 8). However, there was also evidence of open defecation and this was seen mainly with the kids. See Figure 7. Added to this, some of the toilets are left locked by the owners to get rid of passers-by using the latrines. This again has also hindered the kids from accessing the facilities.

Figure 7: Open defecation by kids (Mulago III).

Figure 8: Dilapidated pit latrine (Bwaise II).

Table 5: Percentage open defecation in the selected parishes.

Open defecation	Kyedando	Bwaise I	Bwaise II	Bwaise III	Mulago III
Some of them	7.2%	22.9%	13.3%	39.8%	16.9%
Almost none	28.6%	22.6%	16.5%	10.5%	21.8%
Don't know	19.6%	16.8%	25.1%	17.9%	20.1%

Evidence of the level of cleanliness was reported by the respondents were 15.5% admitted that the toilet facility was dirty while 19.8% said it wasn't dirty at all and 41.3% reported toilet wasn't dirty. In total 61.1 reported clean toilets see Figure 9.

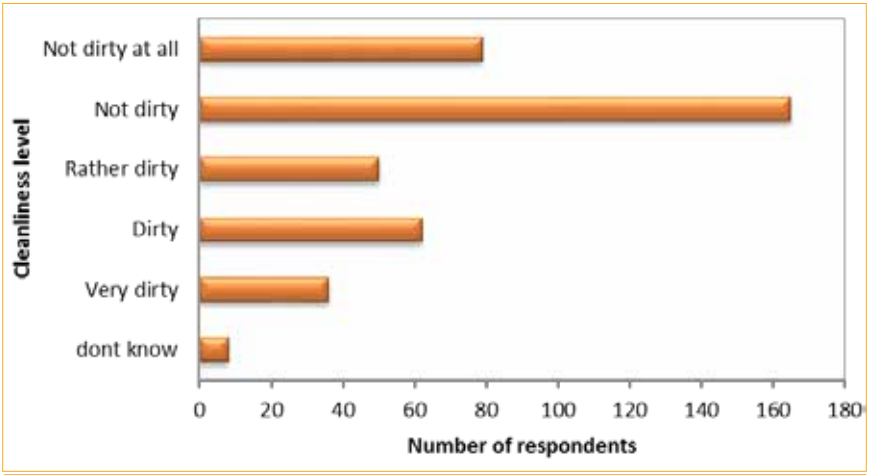

Figure 9: Level of toilet facility cleanliness in Kawempe division.

It was observed that most of the toilets in the selected communities were in a very poor condition (Figure 8). In addition, standards of hygiene in several households were poor. These observations contradict with what the households reported with respect to the cleanliness of the toilet and in terms of household and personal hygiene. This excludes the public toilets that command a fee when visited.

There is organized feacal sludge management (FSM) service in the parishes. When the pit or septic/ sanitary tank is full, then it is the household's responsibility to empty it. From the survey, 56.8% of the interviewees said that a cesspool emptier is used and only 2% reported manual emptying. The emptied sludge is directly transported to a treatment plant. However, the respondents revealed that there are a lot of hindrances involved in faecal sludge emptying. Among these are the high costs involved and the accessibility issues. This in the end ends up into direct discharge in nearby drains especially in the rain season. This practice is causing serious environmental pollution and posing risks to public health.

There appear to be few public toilets in urban areas (Figure 10). In Kawempe, toilets have been established in fixed locations in core areas near commercial areas, markets, and operate on a fee for use basis. Where communal toilets have been provided to communities, they have been poorly maintained and fall into disuse

Figure 10: Public paid for toilet facility (Bwaise II).

4.2.1 EXISTING EXCRETA SANITATION FACILITIES

The common types of excreta facilities in Kawempe were the flush toilets, pour flush, pit latrine with a vent pipe also referred to as a Ventilated Improved Pit latrine Figure 11B and a simple pit latrine without a vent type see Figure 11A. The pit latrine with a vent (Figure 11B) has been a very common excreta disposal facility in the parishes with about 47% of the population having access to this facility refer to Table 6. The true VIP is mainly operated as business entities where every visit goes for as much as 300UGX Figure 10.

Table 6: Excreta facility usage.

Toilet type	Frequency n=400	Percentage
Flush	49	12.1
Pour flush	51	12.8
Pit latrine with vent pipe (VIP)	188	47
Simple pit latrine	90	25.5
Not clear	10	2.5

Figure 11: A simple pit latrine and B is Pit latrine with a vent pipe in Kisenyi zone, Bwaise I Parish in Kawempe Division .

Latrines in these areas tend to flood or fill up during the rainy season, with the general use of sanitation facilities going down on account of the wider contamination in the neighbourhood. This has caused rather un-satisfaction level with the respondents as shown in Table 7. Another issue of dissatisfaction is on the part of the provided public pit latrines that are constructed by say NGOs and are never being commissioned by the donors. More still, the operation and maintenance of these facilities is not taken on well because the caretakers who

collect the money use it for other issues and the ownership aspect is not well felt by the community people. This has led to most of them being misused and when full, it becomes difficult to raise money for emptying services.

Table 7: Level of satisfaction with toilet facility usage.

Satisfaction level	Frequency n=400	Percentage
Very dissatisfied	41	10
Dissatisfied	79	20
Rather satisfied	37	9
Satisfied	172	43
Very satisfied	63	16
Don't know	8	2

4.2.2 DRAINAGE SYSTEM

With the current drainage system, over 54% of the respondents asserted that they are not satisfied with the level of drainage system in the parishes, while 34.8% said they were satisfied with the drains. The initial weakness with most of the drainage system though, is the general failure to look at the problem of urban water management in a holistic manner. For example, the failure to comprehend that every drop of water brought into an informal settlement has to be safely removed otherwise it becomes a health threat. Also, insufficient attention has been paid by authorities to the debilitating impact of weak social and institutional structures. In the absence of proper services, the (informal) drainage system quickly becomes the recipient of waste of all kinds including water, faeces and solid waste refer to Figure 12 leading to further blockage and subsequently flooding hence diseases.

Figure 12: Unlined drainage with stagnant water, silt and disposed solid waste in Bulagani zone, Baise III Parish in Kawempe Division.

4.2.3 SOLID WASTE MANAGEMENT

The heaps of garbage harbour rodents and are breeding areas of disease causing vectors. The leachates from the solid waste pollute the underground water resources too. All these constraints have forced the residents to resort to burying or burning the waste they generate, or disposing it of indiscriminately in open spaces. These prevail more in slum areas with narrow, unpaved streets and roads leading to more problems when it rains and all the waste and soil find its way into the drainage channels. This leads to blockage and subsequently flooding and stagnation refer to Figure 13.

Figure 13: Drainage channel in Kifumbira zone, Mulago II Parish, Kawempe division blocked with solid waste.

The waste is in a heterogeneous nature, mixed and not segregated right from the household to the disposal site. The survey reported that close to 70% of the respondents don't sort waste while only 27% sorted and 3 didn't respond. This mixed includes a range of materials such as plastics, metals and hazardous materials that are difficult to deal with.

From the survey, over 77% reported the generation of biodegradable waste while 21% said no and 2% said they don't generate any waste. The percentage of people with biodegradable waste means that there is possibility of composting the waste into manure to be used in the gardens. Added to that is that the other non-degradable materials can also be recycled. The low level of biodegradable waste in Bwaise II (71%) and Mulago III (51%) in Table 8 below the national level which is between 80 to 88% could have been due to the respondents being business oriented people and they don't cook at home or have no families notes a key informant

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Table 8: showing percentage generation of biodegradable waste per parish.

Biodegradable waste generation	Kyebando	Bwaise I	Bwaise II	Bwaise III	Mulago III
Yes	86.1	93.7%	71.1 %	83.8%	51.3%
No	12.7%	5%	25.1%	13.8%	48.7%
Not clear	1.2%	1.3%	3.8%	2.4%	.0%

4.2.4 BYLAWS ON SANITATION

People do not seem to care about good environmental sanitation practices and constantly litter indiscriminately without considering the future effects of these poor sanitation practices on their health. If appropriate efforts are not made to halt such practices, the city will continue to spend the greater part of her resources in an attempt to ensure good environmental sanitation without success. For instance when the inhabitants were asked if there were existing bylaws in regard to toilet ownership, 77% said they didn't know about it. Weak enforcement and lack of skills at local government level seem to be the main reasons why policies and legislation are not implemented. Further they were asked how effective the laws were of which 21.6% reported effective while the rest (78.4%) noted ineffectiveness of the laws.

4.3 HYGIENE PRACTICES

4.3.1 HAND HYGIENE

The adoption of safe hygiene practice is essential to the achievement of lasting health improvements and thus an integral part of WASH. You will find that people have different behaviours or practices towards addressing the issues of WASH. Such may include individual perceptions, cultural norms, the opinion of family members and peers, and the broader physical environment in which people live or physical access to materials such as soap.

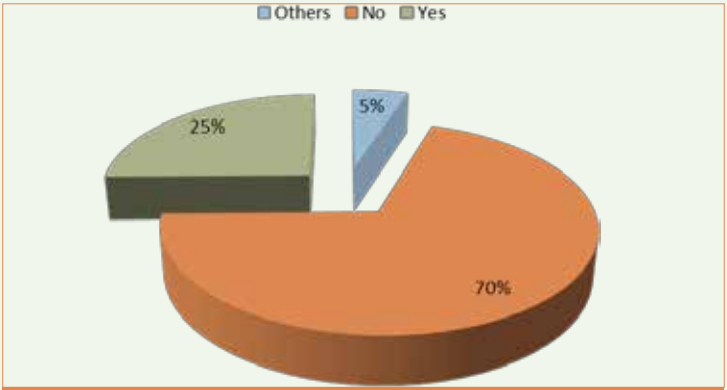

Figure 14: Availability of hand washing facility at toilet facility in Kawempe division.

The survey revealed that 70% household members had a no hand washing facility in or outside there toilet Figure 14 while 25% reported to have and the remaining 5% didn't know or answer about the hand washing facility.

Of the respondents concerning the availability of a hand washing facility, 48.5% had attained Tertiary education while only 4 % had no education (Figure 15). There is need for more educated people in the community equipped with the basic skills to meet the increasing demands of safer sanitation. Better education provides information for a better understanding about the behavior changes which bring the greatest health benefits and proposes gradual improvements both in practice and hygiene facilities.

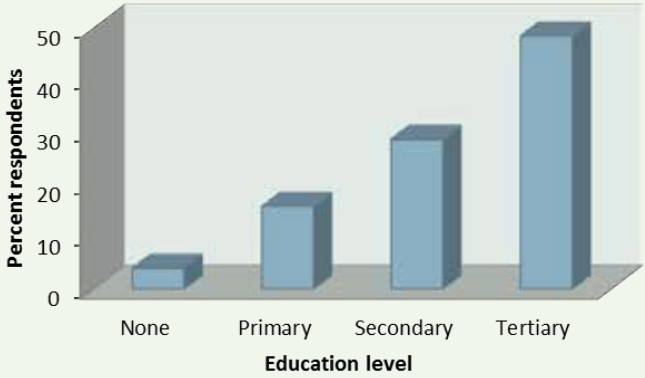

Figure 15: Education level and hand washing facility in Kawempe division.

The reported hand washing practice by households before taking meals in the parishes was also found to be at 70%. This means that washing hands after toilet use was poor or not an issue but important when food was to be eaten. The survey also revealed that there was no significant different in having a hand washing facility in the selected parishes of Kawempe Table 9 and P= 0.09. This means that the household have more or less similar attitudes towards hand washing facility.

Table 9: Excreta facility usage

Hand washing commitment	Kyebando	Bwaise I	Bwaise II	Bwaise III	Mulago III
Not committed (%)	10.3	17.2	10.3	32.8	29.3
Rather committed (%)	17.7	23.1	19.2	20.8	18.5
Committed (%)	23.2	18.8	23.7	15.9	18.4

4.3.2 HAND WASH WITH SOAP

In the parishes, about 46% households practice hand washing with soap and 52% don't while 2% were not clear with their answers see Figure 16.

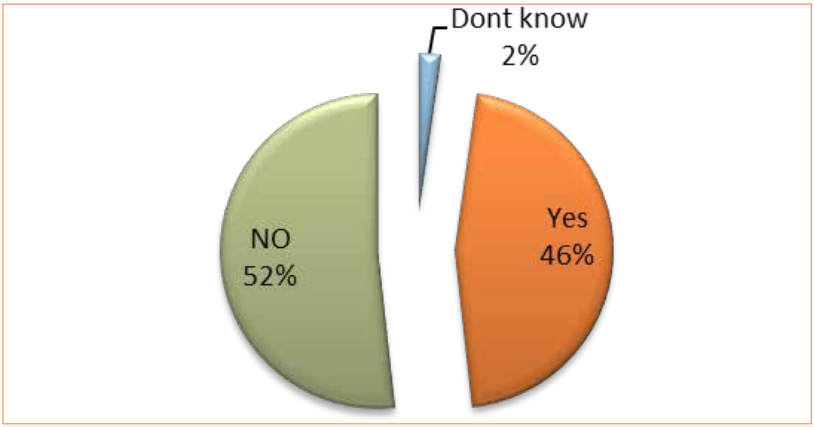

Figure 16: Availability of soap at hand washing facility in Kawempe division.

4.3.3 LEVEL OF SATISFACTION

The common water borne and water related diseases suffered by the community habitants are cholera, malaria, typhoid dysentery and diarrhoea diseases. Majority (over 95%) of the respondents in all five parishes reported that they were satisfied with the way their status toilet facility was Figure 17. Added to the above is that when the respondents were asked if the level of diarrhoea diseases reduced after the campaign of water accessibility in the area was introduced, 75% of them responded that yes there was a reduction in these diseases while 22% said no and 3% couldn't tell.

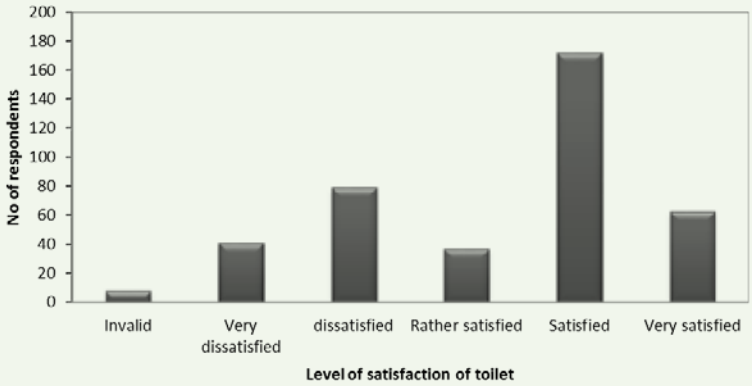

Figure 17: Level of satisfaction of toilet facility in Kawempe division.

4.4 WATER SUPPLY

4.4.1 ACCESS TO WATER

Majority of the respondents 83% (Figure 18) reported that they had access to safe water supply which safe water was taken to be piped water see Table 10. In the selected parishes, 84% of the respondents were satisfied with the source of water while only 16% were not (Figure 19). With satisfaction, the study meant availability of constant quality and affordable water.

Table 10: Accessibility of water sources in the selected parishes.

Selected Parishes					
Source of water	**Kyebando**	**Bwaise I**	**Bwaise II**	**Bwaise III**	**Mulago III**
Piped water into dwelling	11.4%	6.3%	5.0%	11.3%	1.3%
Piped water to yard	50.6%	18.8%	16.3%	6.3%	12.5%
Public stand pipe	34.2%	66.3%	53.8%	68.8%	77.5%
Borehole	0%	1.3%	0%	1.3%	2.5%
Dug well	0%	0%	2.5%	0%	0%
Spring	3.8%	6.3%	8.8%	10.0%	5.0%
Surface	0%	0%	0%	1.3%	0%
Other	0%	1.3%	1.3%	0%	0%

From the survey, it was reported that piped water was the highest accessed source of water (Table 10) and this shows safety though not recommended for drinking till the water is boiled. However, there is need to note that there are other sources of water that are still accessible by the people and these are taken as free sources without use of money. The challenge with these sources is that they are highly contaminated thus causing diseases. In most cases the sources also attract people because of the colourless water they provide see Figure 20.

Figure 18: Availability of piped water.

Figure 19: Satisfaction level of water source by respondents.

The survey further reports that over 70% of the people have never lacked water. This is because of an increase in the installation of public stand pipes and pre-paid water sources, as illustrated in Figure 21.

Figure 20: Unprotected water source in Kisalosalo zone, Kyebando Parish, Kawempe division.

This still explains why more people are satisfied with the water availability in the area. However this satisfaction comes with a cost payment for the water availability. Which the respondents report is affordable per month for a jerry can of water (80%) and 19% report that it is costly while 1% don't know. To prove this further, survey reported that 78% of the people are willing to pay for the water services and 21% are not willing to pay while 1% don't know. The 78% willingness to pay for water cost is not significantly different from the 80% respondents who said that on average a jerry can of water is affordable.

Figure 21: Pre paid water meter in Kiseny zone, Bwaise II Parish in Kawempe division.

Much as there is perceived accessibility of water supply in the parishes, most of the respondents admitted to use less than 4 jerrycans of water (approximately 80 litres of water) per day per household. This means that close to a quarter of the households in the selected parishes consume more than four jerrycans of water per household. And the low consumption level is far not related to the level of income or affordability. It could be a norm or attitude of the people to use limited amount of water. Table 11 shows clearly how water is consumed in the areas.

Table 11: Water usage by respondents in terms of jerrycans per day.

No of jerrycans	Yes %	No %	Don't know %
10 to 20	12.5	75.2	12.3
7 to 9	14.8	77.2	8
4 to 6	18.8	69	12.2
Less than 4	73	21.3	5.7

4.4.2 DISTANCE MOVED TO WATER SOURCE

According to respondents, mostly the women and young kids of the households collect water. Around 85% of the households reported that they move less than half a kilometre in search for water while 8% reported moving more than half of a kilometre and 7% did not know the measurement visa vie movement. This is presented in the Figure 22. This is because of the accessibility of water sources such as public stand pipes (86.8%), prepaid meters at 39%, yard taps at 77.3%, kiosks at 12.5%, boreholes and shallow wells at 15.3% and springs at 51%

Figure 22: Distance walked in search of water in Kawempe division.

4.4.3 WATER QUALITY

Majority of respondents in all five selected parishes reported that water quality is not contaminated 88% while 12% reported that the water was not good because of the sources such as springs and shallow wells. When asked about the quality of water in terms of colourless and smelly (odour) of the water provided, 90% reported water being colourless and 83.5% noted no smell. However, much as the majority said it was not contaminated, they further noted that it wasn't good to drink the water without first boiling at (80.8%). This clearly shows that the respondents are aware of the dangers that may arise when one doesn't boil that water. But however, much as the respondents say that piped water supplied

by NWSC is always safe, water quality monitoring is needed to rule out that perception. For instance most of the water pipes do pass in filthy places, refer to Figure 23 and if there is a burst or leakage then contamination is inevitable.

Figure 23: Water distribution line passing via unhygienic drain in Kifumbira zone, Mulago III Parish in Kawempe division.

4.4.4 GREY WATER MANAGEMENT

Grey water generated from water use is discharged into nearby surface drains by most of the households in the surveyed parishes 58% and 37% into the compounds and gardens while 5% reported discharge in other places such as pit latrines and septic tanks shown in Figure 24. Discharging into drains and compounds was the main practice and to the respondents 58% were satisfied with the practice while 36.3% were not and 5.8% did not care.

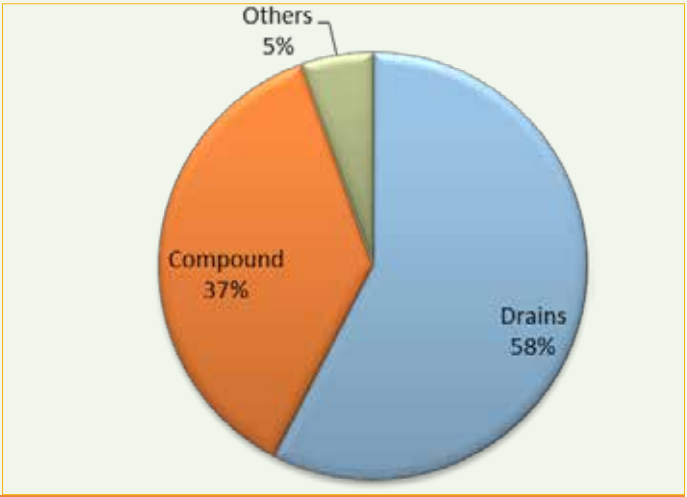

Figure 24: Discharge points of grey water in Kawempe division.

5 GENERAL IMPLICATIONS

Despite good access to water supply, there is significant scope for improvement, e.g., with respect to number and location of water points and where the distribution lines pass, price of water. Attaining universal and equitable access to safe and affordable drinking water for all by 2030 (sustainable development goal 6) will be a major challenge, particularly in urban slum communities. The problem with this is that these people will report they have access to safe drinking water just because it's supplied by NWSC yet the distribution lines are passing through a drain channel which again might cause contamination. This could also be due to the old and unplanned infrastructure that leads to constant leakages and a hindrance to operation and maintenance issues.

Many urban piped-water systems present their own problems. Aging or ill-maintained pipes often result in water loss and a pass way to contamination. Added to the above is that prepaid technology water sources by NWSC very often become faulty and its costly to repair these system and even when they are repaired, it takes a short time of less than 3 months and breaks down.

Further still, where the prepaid taps are installed, there is some form of selfishness on the side of the land owner because the agreement is between NWSC and him/her. So water accessibility by other people is not so obvious.

Also to note is that some people do get water supply from springs, open dug well. These too are not safe places for drinking water.

Poor solid wastes management with its immediate and visible impact remains one of the major challenges to Kawempe as a division with a lot of waste ending up in drain channels thus blocking the flow of water hence flooding and the subsequent impacts. Another method used for solid waste is burning and burying of the waste from vacant plots but all this is not hygienically safe. This causes a lot of respiratory diseases some of which cannot even be detected or diagnosed in our Uganda as a country.

Excreta management covers the proper hygienic disposal of human excreta including the use of on-site and off-site systems including pit latrines, VIPs, flush toilets, pour flush and. These commonly found options are for both household-level and communal use (shared and public toilets). Most people in these informal urban settlements make use of unimproved on-site sanitation, creating large amounts of faecal waste. Faecal sludge management is often miserably inadequate. As a result, large quantities of faecal sludge are discharged to the environment without treatment. This creates unhygienic living conditions and is likely to increase the outbreak of infectious diseases, such as diarrhoea, worm infestation, typhoid, cholera and dysentery.

With current drainage status in the city, there is a clear deficit of the drainage system in Kawempe selected parishes. There are both lined and unlined drain channels. And even the lined drains do receive solid waste as disposal grounds that later blocks the flow of water leading to flooding.

Haphazard growth has led to uncoordinated development of drainage infrastructure, and so flooding and flood-related loss like displacement of persons is a regular occurrence during the rainy season. The poor are affected most, because they reside mostly in low-lying areas adjacent to main storm drains and water courses where land is cheaper or has been informally settled.

Increasing urbanization and non-adherence to planning schemes has resulted in unauthorized location of buildings along flood plains and reservations. This is made worse by the increasing area of the built environment which reduces percolation into the soil.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

It is well reported that household access to WASH facilities has increased in the area. The level of hygiene knowledge has been found to be significantly high among the slum dwellers, although the practice is low. Emphasis should therefore be on promotion of hygiene practice rather than knowledge.

There are increasing trends of water supply in Kawempe as noted in the survey. The question now to note is how safe is the water supplied for drinking? There is still lack of access to a fully safe piped network supply. Another point to note is that the increased access to water supply is largely achieved through shared facilities the prepaid meter taps, public stand pipes and kiosks.

Many poor urban dwellers have to pay very high water prices to informal water vendors or do without water. Not having sufficient and safe water means constant diarrhoea and other debilitating or fatal water related diseases. Low incomes and limited access to water also means choosing between paying for water, food, school fees or medicines

It is interesting to observe that though a majority of households consume water below the specified norms, by and large, they show satisfaction with available supply. This is mainly because they have limited their aspirations and requirements of water in relation to available supply from the water authorities. Some household activities, like washing clothes, bathing, use of water in toilets, and washing dishes and utensils are the most intensive water consuming activities. It has also been found that, a majority of the households perceive these activities as the most wasteful hence minimising on the activities. For instance go without bathing for a day.

Looking at health, hygiene, convenience, and safety aspects of the excreta facilities remains unsatisfactory. Most of the facilities are neither properly constructed nor properly used, making them not fully functional. Whereas most sanitation campaigns are geared towards provision of improved sanitation infrastructure, the findings from the survey shows that mere provision of infrastructure (especially the shared facilities that may be improved or not), without adequate emphasis on proper use, cleaning and maintenance triggers un-satisfactory sanitation.

There are challenges that arise due lack of linkages by households' decisions, coordination to implementing community-level solutions such as community sanitation centers, garbage collection or even regular maintenance of drainage. Even when new solutions are implemented, they may not be sustained if no one takes responsibility for maintenance tasks.

6.2 IMPROVEMENT SUGGESTIONS

a. KCCA and the Ministry of Water and Sanitation should look at WASH service provision at the centre of all urban reform efforts and develop a city framework for action on sanitation and water, with an explicit focus on urban slums. It is important for the city of Kampala to cover all the key aspects of WASH, as a first step.

b. The participation of users in WASH systems in communities is critical for long-term sustainability. For a WASH system to be sustainable, users must accept their responsibilities or offer their participation. At the end of it, they will feel a degree of ownership.

c. The role of women, women are the primary users of water supply and sanitation project facilities, and often provide most of the time needed for WASH activities and are viewed as passive beneficiaries.

d. Gender issues should also be tackled for example; separate toilets for women/girls, ensuring easy/convenient access of women/girls especially during night and access of persons with disability (PWD) and children are often not addressed adequately.

e. From the study, further emphasises on the need for institutional capacity building and proper coordination between institutions and departments to ensure good environmental sanitation.

f. Involving the private sector in providing WASH activities can also solve the slum crisis. In Uganda like many developing countries, the public sector is unlikely to be able to meet the growing demand for WASH services.

Box 1. About Environmental Alert

Environmental Alert (EA) was founded in 1988 and has developed and transitioned into a National Non-Governmental organization contributing to an enabling policy environment for sustainable agriculture and sound environment and natural resources management at community, local, national and international levels. EA is officially registered with the NGO Board as a Ugandan non-governmental organization (NGO), incorporated as a company limited by guarantee. EA is governed by an Independent Board that is responsible for providing strategic oversight of the organization including ensuring its integrity as a voluntary service organization.

EA is a 1st prize winner of the Energy globe award for environmental sustainability-2005 under the category, earth.

EA is a member of the International Union for Conservation of Nature (IUCN) and a Member of The IUCN National Committee for Uganda.

EA envisions, 'Resilient and dignified communities, managing their environment and natural resources sustainably.'

EA's mission is to, 'Contribute to improved livelihoods of vulnerable communities by enhancing agricultural productivity and sustainable natural resources management'

Program and institutional Components:

1. Environment and Natural resources management;
2. Food security and Nutrition;
3. Water, Sanitation and Hygiene;
4. Finance and Administration;
5. Resource mobilization and Investment.

Scale of Implementation:

EA operates in selected districts for generation of evidence to inform policy engagements on agriculture, environment and natural resources at National and International levels. Currently EA's operations are in 20 districts across the country. EA undertakes area wide targeted awareness on selected issues in agriculture, environment and natural resources engagements .

EA is a Secretariat for following networks:

a. The Network for Civil Society Organizations in Environment & Natural Resources Sector (ENR-CSO Network);
b. Uganda Forestry Working Group;
c. The Standards Development Group; and
d. Promoting Local Innovation in ecologically oriented agriculture and natural resources management (PROLINNOVA-Uganda Network).

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