WATER SECTOR TRUST FUND & **GIZ**

Up-scaling Basic Sanitation for the Urban Poor (UBSUP)

Report for the Analysis of the Post Construction Incentive

(Illustration by Vincent Nyalik)

Prepared by the UBSUP Team

Table of Contents

List of Figures

List of Tables

Introduction

1.1 Background of the Study

In order to spark demand for improved sanitation, UBSUP programme included a Post Construction Incentive (PCI) as a key principle of implementation. This incentive targeted house owners and landlords who had successfully completed the construction of new or rehabilitated SafiSan toilet facilities. A PCI of Kshs 20,000 was paid for each toilet that had successfully been constructed.

Before the programme settled on a unit PCI of Kshs 20,000, a preliminary assessment of cost was done. This was based on the results of the UBSUP preparatory study on ability and willingness to pay for improved sanitation. Piloting of the UBSUP programme was thus implemented with a flat PCI value of Kshs 20,000 for both the new and rehabilitated facilities. In the course of implementation however, the UBSUP team had a feeling that the PCI for rehabilitated facilities should have been lower than Kshs 20,000. A Customer Aided Design study aimed at establishing the cost difference between the new and rehabilitated facilities was commissioned. This study targeted the pilot towns. Based on the results of the study, the PCI for rehabilitated facilities was reduced to KShs 15,000. This was then implemented during the 1st phase of implementation of the upscaling part of the programme which was carried out in 20 towns.

Noting that the CuAD was carried out in only 3 towns and the implementation is now being carried out in 20 towns, it was necessary to carry out another study to verify the fairness and value for money with a more representative sample.

It is on this basis that this study on PCI analysis was carried out.

1.2 Objectives of the study

The following were the key objectives of the study:

1. To establish the actual cost of the different toilet technologies that are constructed under the UBSUP programme.
2. To find out the duration of time taken to construct SafiSan toilets.
3. To establish the secondary benefits of the PCI paid out - ripple effect.
4. To establish the fairness of payment of PCI across the various toilet technologies.
5. To find out the number of toilets constructed viz a vi the number of people living on the plot.

1.3 Study Elements and Activities

During the UBSUP PCI study, the following methods and techniques were adopted by the UBSUP team:

- In-depth interviews with plot/ household owners, caretakers, contractors who have constructed SafiSan toilets.
- Interviews with artisans to determine the cost of materials and the quantities used for construction.
- Transect walks.
- ***Observations (both covert and overt) especially focusing on sanitation and hygiene practices and use of sanitation facilities within the plots that have constructed the SafiSan toilets.***

1.4 Data Collection

A set of questions targeting householders and landlords were generated and compiled by the UBSUP social team. This questions were converted into electronic form and uploaded in form of an android based application which was uploaded in tablets (Figure 1). The enumerators entered the required data which reflected in real time on a corresponding dashboard. The dashboard could be accessed anywhere by following a predetermined link. Information contained was raw data as entered by the enumerators and was in tabular form.

Home Form Admin Data

	RefNo	County	SubCounty	Location	SubLocation	Town	Area	NameofRespondent	Gender	NoofHousehold	PhoneNo	StatusofRespondent	WaterConnection	SourceofWater	UDDTpourflash
Edit Delete	60	Nakuru	Naivasha	Lakeview	Lakeview	Naivasha	Kihoto	Joseph Kiirui	Male	7	0722967230	LandLord	Yes	Other	None Yes
Edit Delete	64	Nakuru	Naivasha	Lakeview	Lakeview	Naivasha	Kihoto	Jackson Kamau kanyura	Male	80	0712888522	LandLord	No	Other	None Yes
Edit Delete	170	Laikipia	Nyahururu	Maina	Maina	NyahururuMaina		Joseph Otieno	Female	16	0720359039	LandLord	Yes	Connection Existing	None None
Edit Delete	172	Laikipia	Nyahururu	Maina	Maina	NyahururuMaina		John Muthee	Female	15	0725359856	LandLord	Yes	Connection Existing	None Yes
Edit Delete	226	Laikipia	Laikipia West	Maina	Maina	NyahururuMaina		Esther Wangui Nderitu	Female	27	0721704954	LandLord	Yes	Connection Existing	None Yes
Edit Delete	229	Laikipia	Laikipia West	Maina	Maina	NyahururuMaina		Jane Wambui	Female	4	0728206287	LandLord	Yes	Connection Existing	None Yes
Edit Delete	244	Nyandarua	Olkalou	Gaibaga	Gichungo	Olkalou	Huruma	Charles Muthoka	Male	17	0711822443	Contractor	No	Other	None Yes
														Connection	

Figure 1: A screenshot of the SafiSan dashboard

The sources of data were the people who had constructed the SafiSan toilets(artisans and contractors) or were currently owning the plots that the toilets had been constructed. This was deliberately done with the realization that the study was based on the population that had constructed the SafiSan toilets.

1.4.1 Selection of Towns for the Study

The towns that were selected for the study were those that are implementing the UBSUP programme. 19 Water Service Providers (WSPs) are currently implementing the programme in 20 towns. Below in Table 1:List of WSPs targeted in the study is a list of the WSPs that were targeted.

Table 1:List of WSPs targeted in the study

No.	WSP
1.	Naivasha Water and Sewerage Company
2.	Ol Kalou Water and Sanitation Company
3.	Nakuru Rural Water and Sanitation Company
4.	Nyahururu Water and Sanitation Company
5.	Nanyuki Water and Sewerage Company
6.	Kirinyaga Water and Sanitation Company
7.	Nithi Water and Sanitation Company
8.	Kericho Water and Sanitation Company
9.	Kiambere Mwingi Water and Sanitation Company
10.	Gusii Water and Sanitation Company
11.	Kitui Water and Sanitation Company
12.	Machakos Water and Sewerage Company
13.	Mikutra Water and Sanitation Company
14.	South Nyanza Water Services Limited
15.	Nolturesh Loitokitok Water and Sanitation Company
16.	Nzoia Water Services Company- Bungoma
17.	Kibwezi Makindu Water and Sanitation Company
18.	Nzoia Water Services Company - Kitale
19.	Malindi Water and Sanitation Company
20.	Muranga Water and Sanitation Company

1.4.2 Sample Sizes and Number of Household Interviews Conducted

At least 20 questionnaires were filled for each of the 20 WSPs. More questionnaires were filled in WSPs that had more plot registrations. This was able to assist in reaching the minimum number of questionnaires necessary to make our sample size valid and adequate.

The minimum number of questionnaires that were required were 404.

The anticipated confidence level used was 99% whereas the confidence interval was 5. It was anticipated that this would give an almost accurate answer if the sample was on plots which have constructed the SafiSan toilets. The UBSUP programme adopted a maximum of 10 people per toilet facility as the standard for toilet use. Using SafisApp[1],the study was able to recognize which plots have constructed the SafiSan toilets in the various WSPs. The plots acted as the unit for the study population.

1.4.3 Total number of interviews conducted

The total number of interviews that were conducted were 393. This was carried out in all the WSPs that are implementing UBSUP phase 1. Some of the WSPs however did not have plots that could significantly reach the threshold to carry out the study. Kibwezi for example has only 15 toilet constructions so far. This therefore, reduced the total number of interviews done.

2. Findings

2.1 Introduction

The findings of this study surrounded the key objectives of the study. As earlier outlined the following were the key objectives of the study:

1. To establish the actual cost of the different toilet technologies that are constructed under the UBSUP programme.
2. To find out the duration of time taken to construct SafiSan toilets.
3. To establish the secondary benefits of the PCI paid out - ripple effect.

[1] SafisApp is the data collection app that is being used in the UBSUP programme. SafisApp captures all the plots that have been registered and the number of toilets registered, constructed and appraised. This is information as of April 2016.

4. To establish the fairness of payment of PCI across the various toilet technologies.
5. To find out the number of toilets constructed viz a vi the number of people living on the plot.

According to the UBSUP concept, the cost of construction should be below the amount of PCI paid. The information derived from this study will inform the level of PCI that will be paid to the house owners and the landlords without altering the objective of demand creation and sanitation marketing. In other words, the demand for toilets should not be based on the extra money derived from PCI but rather the need to have improved sanitation. Understanding the time that is taken to construct toilet facilities will inform the WSPs on the preparatory activities and corresponding timings in cashing complete facilities.

One lesson learnt from the pilot phase was that improved toilet structures sparked the improvement of housing facilities. This was one of the ripple effects of UBSUP. This study therefore sort to establish any other effect that UBSUP had in areas which it had been implemented. This knowledge would enrich the Social Marketing concept targeting the WSPs, households and plot owners.

At face value, constructing a toilet facility and a corresponding collection and storage facility (septic and conservancy tanks) together with its connections would cost more than constructing a toilet that is connected to a sewer system. This study would establish the level of disparity and recommend a fair PCI for the different technologies.

The maximum number of people that are expected to use a single SafiSan facility is 10 according to UBSUP standards. Use of this facilities by more than this number compromises access. This study was to establish the facts on the actual number of people using a single facility and the consequences it had on access.

2.2 Key Findings

2.2.1 General Respondent and Plot Information

I. Gender

A total of 393 interviews were conducted out of which, 221 respondents were male and 172 were female. This can be represented, in percentage,in a pie chart as shown in Figure 2.

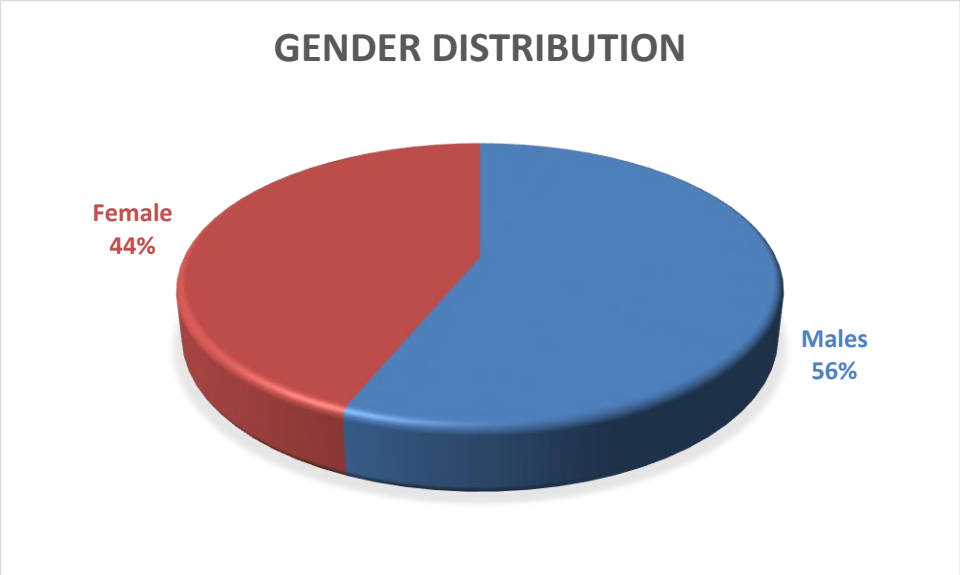

Figure 2: Pie chart of the gender distribution in the study

II. Status of the Respondent

A majority of the respondents interviewed were landlords. Out of the 393 respondents interviewed 302 were landlords, 85 were house owners and a small number of other respondents as represented in Figure 3.

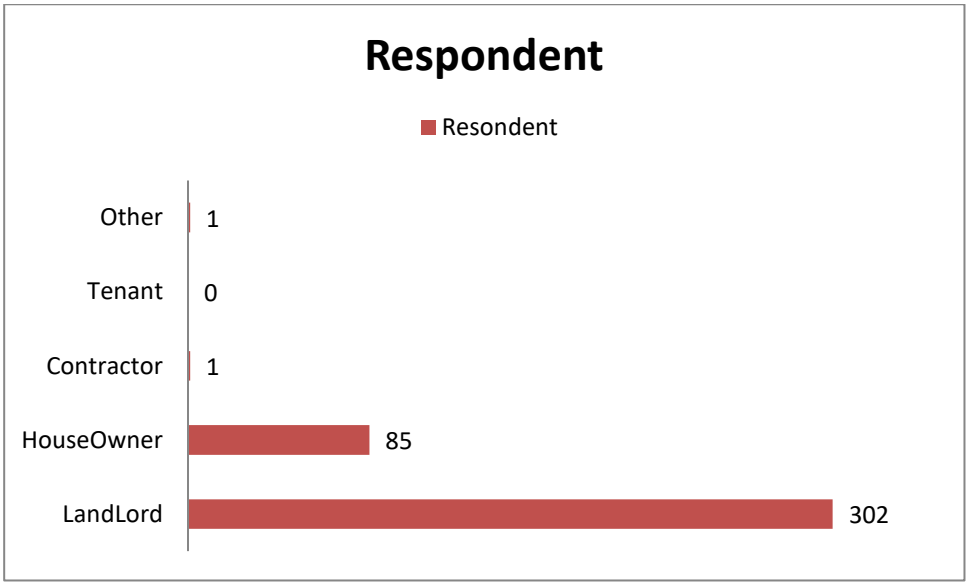

Figure 3: Status of the respondent

III. Household Members using the SafiSan Toilets

According to the study, one SafiSan toilet is being used by nine (9) people on average across all the WSPs implementing the programme in phase 1.This is in line/ parralel with what the programme anticipated which is 1 toilet to 10 people. This

difference is also observed for the different towns that were engaged in the study as shown in Table 2 below.

Table 2: WSPs implementing the SafiSan project

No.	WSP	Avg. no of users per toilet
1.	Naivasha Water and Sewerage Company	14
2.	Ol Kalou Water and Sanitation Company	7
3.	Nakuru Rural Water and Sanitation Company	8
4.	Nyahururu Water and Sanitation Company	6
5.	Nanyuki Water and Sewerage Company	9
6.	Kirinyaga Water and Sanitation Company	7
7.	Nithi Water and Sanitation Company	4
8.	Kericho Water and Sanitation Company	16
9.	Kiambere Mwingi Water and Sanitation Company	6
10.	Gusii Water and Sanitation Company	11
11.	Kitui Water and Sanitation Company	7
12.	Machakos Water and Sewerage Company	8
13.	Mikutra Water and Sanitation Company	7
14.	South Nyanza Water Services Limited	10
15.	Nolturesh Loitokitok Water and Sanitation Company	7
16.	Nzoia Water Services Company- Bungoma	7
17.	Kibwezi Makindu Water and Sanitation Company	7
18.	Nzoia Water Services Company - Kitale	8
19.	Malindi Water and Sanitation Company	5
20.	Muranga Water and Sanitation Company	6

IV. Plots using the SafiSan Toilets

From the study, it was established that on average two (2) toilets have been

constructed on plots that had the SafiSan toilets across all the WSPs that are implementing the first phase of the programme. Table 3 below gives the summary.

Table 3: Average number of toilets per plot

No.	WSP	Avg. no of toilets per plot
1.	Naivasha Water and Sewerage Company	3
2.	Ol Kalou Water and Sanitation Company	4
3.	Nakuru Rural Water and Sanitation Company	3
4.	Nyahururu Water and Sanitation Company	1
5.	Nanyuki Water and Sewerage Company	1
6.	Kirinyaga Water and Sanitation Company	2
7.	Nithi Water and Sanitation Company	2
8.	Kericho Water and Sanitation Company	1
9.	Kiambere Mwingi Water and Sanitation Company	3
10.	Gusii Water and Sanitation Company	2
11.	Kitui Water and Sanitation Company	1
12.	Machakos Water and Sewerage Company	4
13.	Mikutra Water and Sanitation Company	2
14.	South Nyanza Water Services Limited	2
15.	Nolturesh Loitokitok Water and Sanitation Company	1
16.	Nzoia Water Services Company- Bungoma	1
17.	Kibwezi Makindu Water and Sanitation Company	1
18.	Nzoia Water Services Company - Kitale	1
19.	Malindi Water and Sanitation Company	2
20.	Muranga Water and Sanitation Company	2

V. Water Supply Situation

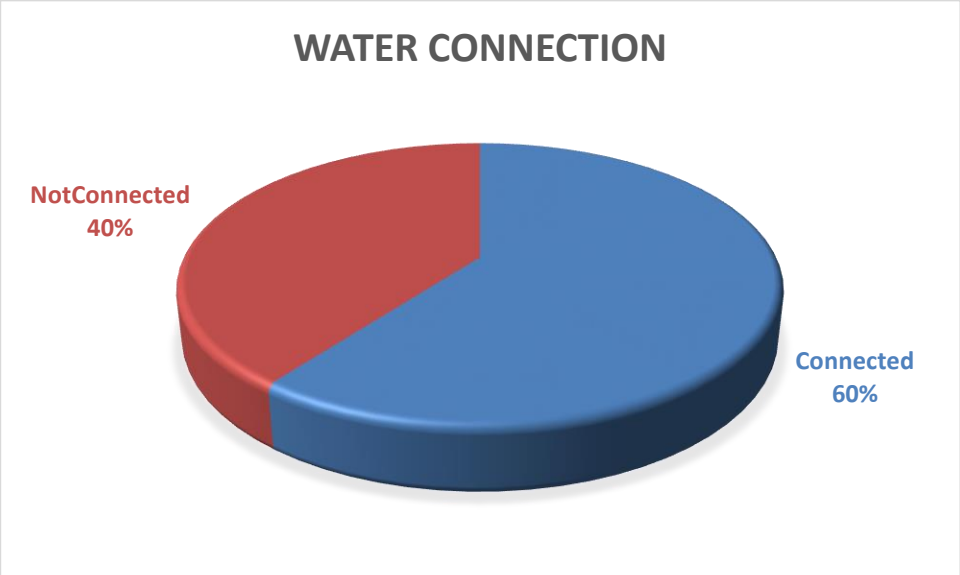

Figure 4: Water connection status

As seen in Figure 4 above, 60% of the interviewed respondents had water connections (from the WSP), whereas 40% did not have. From the study therefore, it is evident that a majority of the respondents have access to water that can be used in the water based toilets.

The type of water connections vary. 9.4% of the plots have individual connections whereas 8.7% use a general plot connection. 14.8% are using water kiosks, 6.4% are private water vendors and 60.8% are other. The main sources of water represented in the other category are the boreholes, springs, wells and rivers.

2.3 SafiSan Toilet Technologies and Conveyance Systems

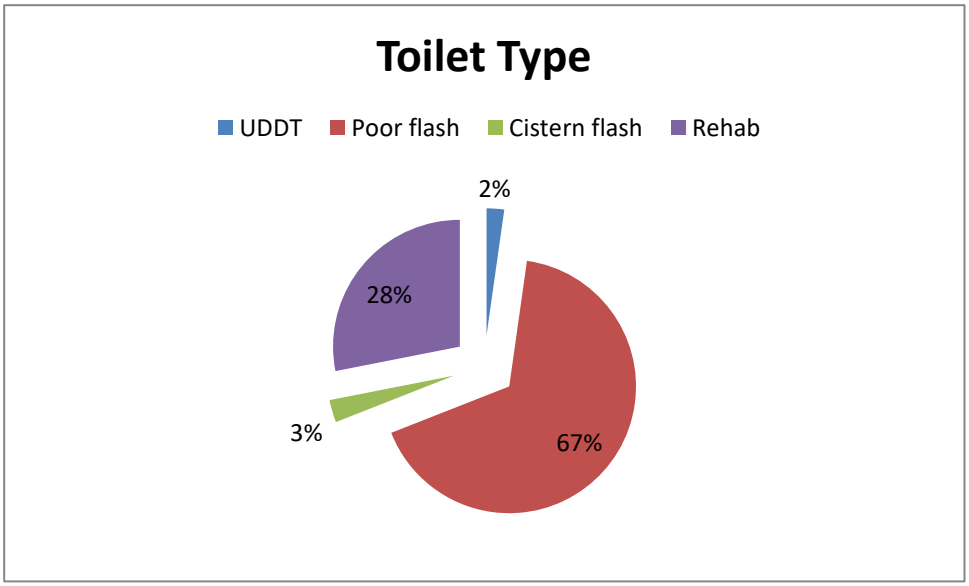

Figure 5: The types of SafiSan toilets

Figure 5 shows that the pour flush toilets were the most constructed toilets in the UBSUP programme. The pour flush toilets were 67% of the total number of toilets constructed. 28% of the toilets were rehabilitated, 3% were cistern flush toilets and 2% were UDDTs.

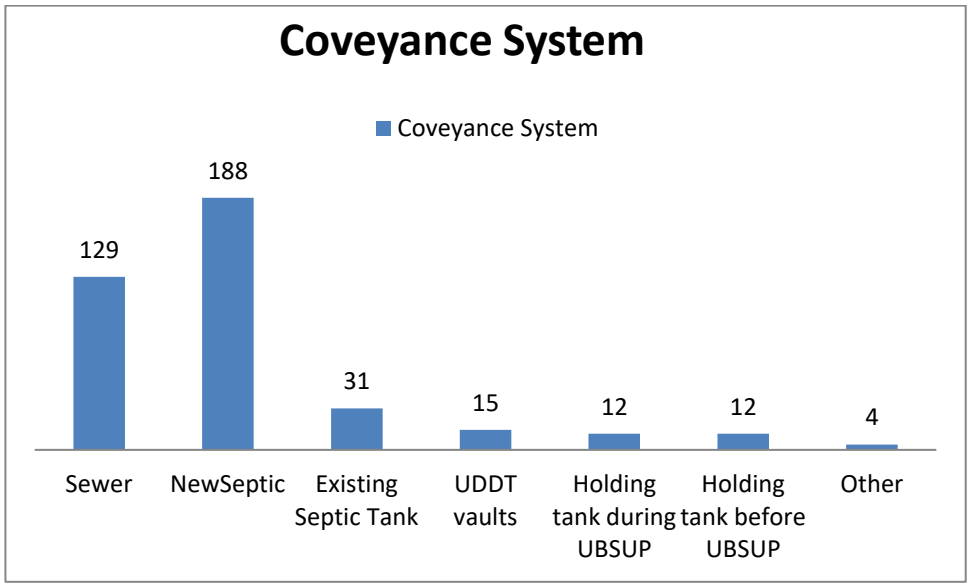

Figure 6: Conveyance systems

With the UBSUP programme, all toilets that were constructed needed to have conveyance systems that would help complete the sanitation value chain. According to Figure 6 new septic tanks were the most constructed to act as the storage for the SafiSan toilets. The WSPs with sewer line in the various low income areas also experienced more connections.

For the new septic tanks that were constructed, the average cost varied across the various WSPs. This can be shown in Table 4 below. This cost contributed in calculating the total cost of the toilet construction. As of when the study was carried out, three (3) of the septic tanks had already been emptied.

Table 4: Average cost of septic tank per WSP

No.	WSP	Avg. cost of a septic tank
1.	Naivasha Water and Sewerage Company	53,057
2.	Ol Kalou Water and Sanitation Company	60,254
3.	Nakuru Rural Water and Sanitation Company	50,178
4.	Nyahururu Water and Sanitation Company	0
5.	Nanyuki Water and Sewerage Company	76,000

6.	Kirinyaga Water and Sanitation Company	21,897
7.	Nithi Water and Sanitation Company	13,500
8.	Kericho Water and Sanitation Company	383,000[2]
9.	Kiambere Mwingi Water and Sanitation Company	82,667
10.	Gusii Water and Sanitation Company	0
11.	Kitui Water and Sanitation Company	20,750
12.	Machakos Water and Sewerage Company	29,154
13.	Mikutra Water and Sanitation Company	55,854
14.	South Nyanza Water Services Limited	19,793
15.	Nolturesh Loitokitok Water and Sanitation Company	51,440
16.	Nzoia Water Services Company- Bungoma	71,514
17.	Kibwezi Makindu Water and Sanitation Company	163,533
18.	Nzoia Water Services Company - Kitale	125,380
19.	Malindi Water and Sanitation Company	51,975
20.	Muranga Water and Sanitation Company	0

2.4 Toilet Financing

[2] The price of the septic in Kericho is high because there were only two built and the dimensions are big to hold waste from many toilets in a plot. The rest of the toilets in the area are connected to the sewer

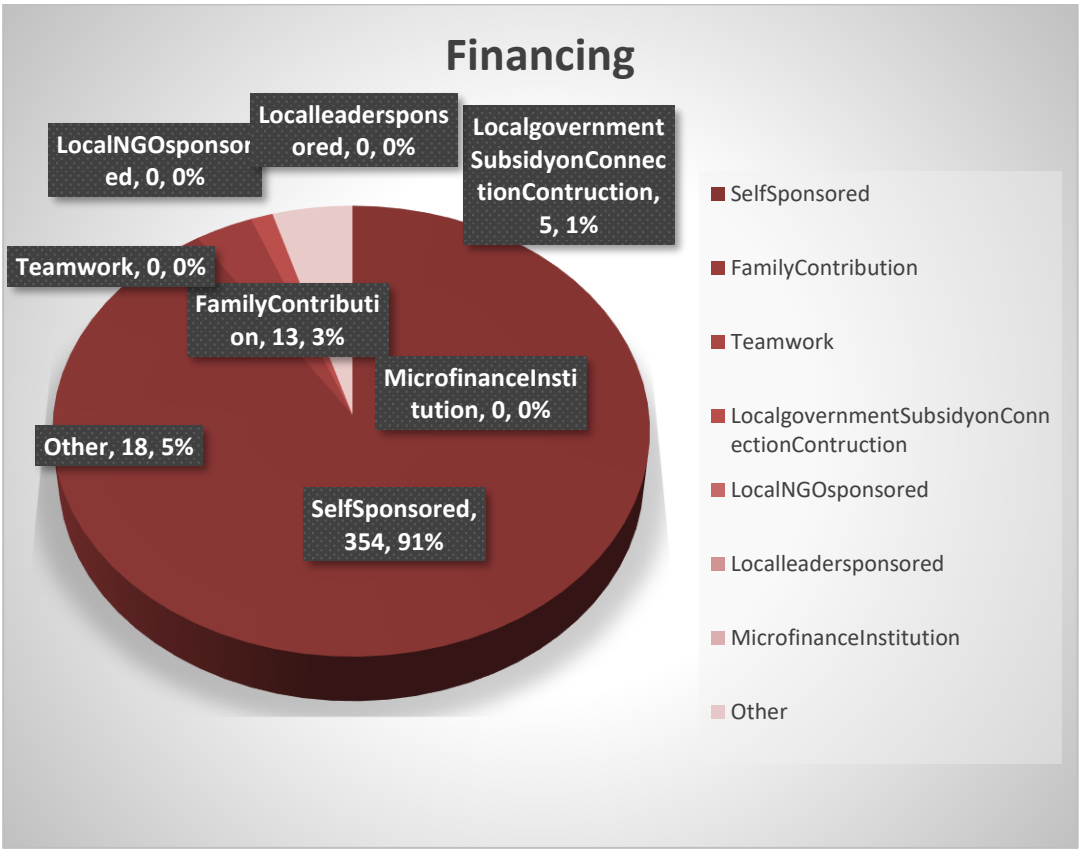

Figure 7: Financing

91% of the toilets constructed were financed by the owners of the plots or households. From the results, it is clear that the majority of beneficiaries financed their own facilities indicating a high level of willingness to pay for sanitation facilities. 3% of the beneficiaries were supported by family members. Artisans and contractors were the larger percentage who also assisted in financing the construction of the toilets. They were represented in the category of other.

2.5 Toilet Cost

The cost of the construction varied along the various technologies that had been proposed for adoption. Table 5 below summarises the average costs that were incurred.

Table 5: Type of toilet and average cost

Type of toilet	No. of toilets interviewed	Average cost per toilet (Kshs)
UDDT	28	35,642.86
Pour flush	837	33,742.94
Cistern flush	36	41,332.22

Rehabilitated	352	28,184.26

2.6 Materials Used for Construction

Table 6: Materials used for construction

Material Used	Toilet Type			
	UDDT	Pour Flush	Rehab	Cistern Flush
Roof				
	UDDT	Pour Flush	Rehab	Cistern Flush
Corrugated Iron Sheets	16	264	108	12
Concrete	0	14	8	1
Plain metal sheets from oil drums	0	1	0	0
Wall				
	UDDT	Pour Flush	Rehab	Cistern Flush
Bricks	9	107	43	8
Cemented Blocks	6	111	46	4
Corrugated Iron Sheets	1	19	1	0
Other	0	41	27	1
Floor				
	UDDT	Pour Flush	Rehab	Cistern Flush
Plastered	15	257	0	12
Tiles	1	22	10	1

Most of the constructions as seen in Table 6 were new constructions. New floors, walls and roofs were constructed. Corrugated iron sheets for the roof, bricks for the walls and plastered floors were the most preferred in the SafiSan toilets that were constructed.

For the rehabilitated toilets, it is key to note that the roof was the most rehabilitated section. For the wall, cement blocks were added and for the floor tiles were put to

increase the look of the toilets.

2.7 Types of Toilet before SafiSan

Most of the toilets constructed before the SafiSan toilet intervention were pit latrines. Ideally the traditional pit latrines were the most constructed toilets in the areas interviewed. They constituted 58%. 23% were improved pit latrines, 5% were ventilated improved pit latrines. These percentages can be represented as in Table 7 below.

Table 7: Types of toilets before the SafiSan intervention

No.	Type of toilet	Percentage
1.	Ventilated improved pit latrine (vent pipe, fly screen)	5%
2.	Cistern flush toilet connected to a conservancy tank	0%
3.	Cistern flush toilet connected to a septic tank	1%
4.	Cistern flush toilet connected to a sewer	2%
5.	Improved pit latrine (air vent, proper super structure)	23%
6.	No sanitation facility	3%
7.	Pour flush toilet connected to a conservancy tank	0%
8.	Pour flush toilet connected to a septic tank	3%
9.	Pour flush toilet connected to a sewer	4%
10.	Traditional pit latrine	58%
11.	other	2%

2.8 Artisans Engaged for Construction

The toilets were mostly constructed by artisans. Only 1.78% were constructed by contractors of the representative sample that was interviewed. 88.3% of the artisans were chosen by the landlords houseowners while the rest were recommended by other external parties. 0.76% of the SafiSan toilets were constructed by the owners of the toilets.

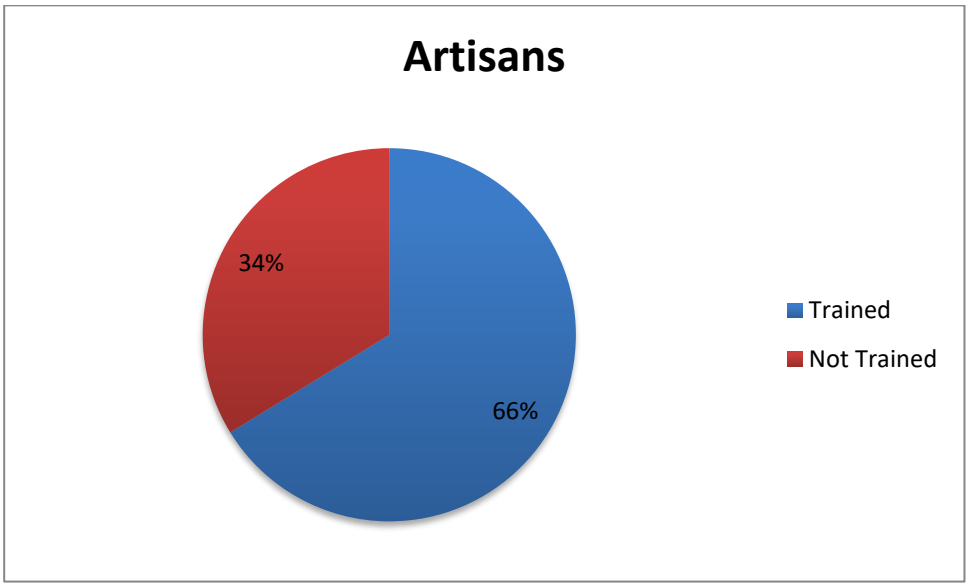

Figure 8: Pie chart showing percentage of artisans trained

66% of the artisans engaged in the construction of the SafiSan toilets were trained whereas 34% were not trained. The quality of the toilets for the artisans that had been trained by the programme was better than the quality of the artisans who were not trained by the programme. This can be shown by Table 8 below:

Table 8: Quality of works

No.	Artisan	Fair	Good	Poor
1.	Trained	20	230	1
2.	Untrained	8	121	0

On average 8 days were taken to construct the toilets. The UDDTs took longer to be constructed, whereas the rehabilitated toilets took the least number of days. Table 9 below gives the summary of the days used for construction per the toilet type.

Table 9: Average number of days of construction

No.	Type of toilet	Avg. no. of days for construction
1.	UDDT	21
2.	Pour flush	9
3.	Cistern flush	8
4.	Rehabilitated	7

The labour charged by the artisans varied according to the type of toilet constructed

as well as the number of days it took to construct the toilet. The average cost per type of toilet technology is as indicated in Table 10 below

Table 10: Average cost of labour per toilet technology

Type of toilet	No. of toilets interviewed	Avg. Labour Charged (Kshs)
UDDT	28	7628.57
Pour flush	837	8518.30
Cistern flush	36	7365
Rehabilitated	352	11413.33

9.9% of landlords and household owners who were visited changed their artisan during the construction of the SafiSan toilet. The major reason why the artisan was changed was poor quality of works. This was because the artsians had little or no experience in the construction of the SafiSan toilets.. Other reasons are shown below.

Table 11: Reasons for change of artisans

Reason	No.	Total	Percentage
High Cost	8	31	26
Slow progress	7	31	23
Consistency/ reliability	7	31	23
Poor quality of work/ low experience	9	31	29

2.9 Sanitation Situation

The sanitation situation in the WSPs and the areas that have the SafiSan intervention is different. Some of the respondents are still facing challenges with regards to the sanitation on their plots. Out of a total of 708 respondents who had challenges on their plots, the percentages are summarized as in Table 12 below.

Table 12: Challenges facing the sanitation on the plots

No.	Challenge	No. of respondents	(%)
1.	Lack of proper solid waste management	113	15.96

2.	Ignorance and poor maintainance of the toilets	59	8.33
3.	Blockages	73	10.31
4.	Unreliable water supply	162	22.88
5.	Poor drainage	81	11.44
6.	Open manholes	12	1.69
7.	Flooding of pit latrine during the rain season	36	5.08
8.	Lack of enough toilets in some plots	54	7.63
9.	Water bill is high because the toilets use a lot of water	51	7.20
10.	Exhauster services are expensive	8	1.13
11.	Porverty,most residents are unable to build toilets	33	4.66
12.	Diging you get rocks	26	3.67

The respondents were asked if they will be engaging in any other activities to further improve their toilets. The summary is as follows:

Table 13: Plans to improve the sanitation

No.	Plans to improve sanitation	No. of respondents	(%)
1.	No plans	235	60%
2.	Rehabilitate more toilets	5	1%
3.	Repainting of toilets	8	2%
4.	Replacement of doors, vents	1	0%
5.	Water tank to store water	58	15%
6.	Increase the number of toilets	35	9%
7.	Connection to the sewer line	4	1%
8.	Other	46	12%

From the analysis above 60% of the respondents are satisfied with their current sanitation status after the intervention from the SafiSan project. To further note is that all the other improvements anticipated are to better improve their imfrastructure and not engage in other toilet technologies other than the ones promoted by the programme.

Generally 93.4% of the respondents were satisfied with their sanitation situation and 66% were not. The main reason for the 6.6% who were not satisfied is that the people on some of the plots misuse the toilets. Another reason is that, in some areas there is insufficient supply of water.

2.10 Post Construction Incentive

2.10.1 Amount Paid out

Of the interviews conducted, 80.7% were paid the PCI whereas 19.3% were not paid. The main reason for this would be that by the time the interviews were being conducted, the WSP had conducted the approvals but not issued out the cheques.

2.10.2 Opinion on the Amount Paid

Different people had different responses on the amount of PCI that was paid and any amount that would be recommended. The amounts were ranged between various groups as shown in the table below. A few of the respondents also recommended that the PCI remain the same.

Table 14: Opinion on the PCI amount paid

PCI amount (Kshs)	New toilet	Rehabilitated toilet
10,000-20,000	69	217
21,000-30,000	142	21
31,000-40,000	80	22
41,000-50,000	61	11
>51,000	21	3
Okay with the PCI amount	12	12

53% of the respondents would have invested in the improvement of their sanitation even without the PCI whereas 47% would not have invested in sanitation if there was no PCI being offered. The meain reason tabulated for improvement in the sanitation

situation is that the respondents want to improve their sanitation and have clean plots. This goes to show that the programme has initiated behaviour change for most of those who have taken up the SafiSan toilets.

2.10.3 PCI Payment

The duration of payment of the PCI across the various WSPs varied. A blanket average number of days could not be tabulated as the WSPs have different standard operating procedures causing the days to vary.

Table 15 below outlines this.

Table 15: Average days before PCI payment per WSP

No.	WSP	Avg. days before PCI payment
1.	Naivasha Water and Sewerage Company	46
2.	Ol Kalou Water and Sanitation Company	19
3.	Nakuru Rural Water and Sanitation Company	27
4.	Nyahururu Water and Sanitation Company	22
5.	Nanyuki Water and Sewerage Company	24
6.	Kirinyaga Water and Sanitation Company	28
7.	Nithi Water and Sanitation Company	23
8.	Kericho Water and Sanitation Company	12
9.	Kiambere Mwingi Water and Sanitation Company	9
10.	Gusii Water and Sanitation Company	19
11.	Kitui Water and Sanitation Company	11
12.	Machakos Water and Sewerage Company	29
13.	Mikutra Water and Sanitation Company	12
14.	South Nyanza Water Services Limited	4
15.	Nolturesh Loitokitok Water and Sanitation Company	32
16.	Nzoia Water Services Company- Bungoma	16

17.	Kibwezi Makindu Water and Sanitation Company	38
18.	Nzoia Water Services Company - Kitale	21
19.	Malindi Water and Sanitation Company	7
20.	Muranga Water and Sanitation Company	30

2.10.4 Savings

Of the interviewed 82% of the respondents did not make any savings. 18% made savings. The respondents who constructed the pour flush toilets made more savings as compared to the ones who made the other types of toilets. The table below gives an overview of the type of toilet and the number of respondents who recorded that they made savings. It is to be noted that the respondents who constructed the cistern flush toilets and the UDDTs were the smallest number in terms of making savings.

Table 16: Toilet savings from the PCI

Toilet Type	No. of respondents who recorded making savings
UDDT	14
Cistern Flush	14
Pour Flush	54
Rehabilitated	31

2.11 Ripple Effect

2.11.1 Information on the Project

Most of the people learnt about the programme through the Sanitation marketers. The sanitation marketers were responsible for community sensitization and awareness creation. The involvement of the sanitation marketers really helped in the demand creation and activation of the sale of the toilets.

2.11.2 Role of the Social Animators

The Sanitation marketers were involved in all the stages of the toilet construction, training on monitoring, and maintenance of the facilities. They visited the plots before, during and after construction. For most of the respondents, the visit really influenced the uptake of the SafiSan toilets.

2.11.3 Extra Payment for services rendered

No extra payments were requested to be able to have any of the services offered. This implies that all the activities were carried out as they should have and no corruption allegations were registered.. However, it is key to note that the responses offered when this particular question was asked may not have been completely truthful.

2.11.4 Other Programs

Few of the respondents answered that there were other programs that they had seen taking place intervening on issues of sanitation and solid waste management. Danida was involved in the construction of a sewer line, Laikipia University had an environment project in 2014 and 2015 and a garbage collection project was initiated which failed.

2.11.5 Toilet Observations

51% of the SafiSan toilets that have been constructed have handwashing facilities. They are mostly buckets or a small tank that have a tap attached to them. 49% of the toilets do not have handwashing facilities. Extra effort needs to be put in place to enhance the uptake of handwashing habits. An example of one of this efforts is to have the handwashing fixtures incorporated in the construction(have it in the toilet drawings). According to covert on this subject many UBSUP clients shunned the use of detachable handwashing equipment because of their proneness to theft.

Figure 9: Percentage of handwashing facilities

The general condition of the SafiSan toilets (i.e. the cleanliness, technical condition, use as a bathroom and the solid waste management) were also reviewed. Different opinions were generated as shown below.

Table 17: General conditions of the SafiSan toilets

Toilet cleanliness							
Clean		Fairly clean		Dirty		Not in Use	
293	75%	72	18%	16	4%	12	3%

Technical condition of the toilet							
Good		Fair		Poor		Not fit for use	
355	90%	30	8%	1	0%	7	2%

68% of the SafiSan toilets are being used as bathrooms whereas 30% are not being used. This can be understood as most toilets are water based and the people will be inclined to use it as a bathroom first then later use the same water as a flush mechanism to wash the toilet.

3. Conclusion

The SafiSan project was initiated in order to improve the sanitation of the residents in plot and household level at various low income urban areas in Kenya. Many of the respondents who have benefited from the PCI so far are very happy about for their improved sanitation and they are hoping thet the project can continue so that it can be able to impact more people.

The PCI is a very good way in which too build the demand for the toilets and increase uptake. However, to trigger more uptake and promote sustainability, more emphasis should be put in behaviour change so that even with the phasing out of the PCI, the people would still see the need to improve their sanitation.

4. Appendices

4.1 Observations from the field

4.2 Questionnaire of the study