

CAN ECOLOGICAL SANITATION WORK FOR PUBLIC INSTITUTIONS? A SUCCESS STORY OF THE URINE DIVERSION DRY TOILET AT KAUGA PRISON, MUKONO DISTRICT

By
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Introduction

Access to dignified sanitation is a human right and one of the indicators of development. Anywhere in the world, prisoners under going reform equally have a right to dignified sanitation however, the baseline study carried out by the Appropriate Technology Centre for Water and sanitation (ATC) in 2012 indicated a pathetic state of sanitation in prisons in Uganda i.e., many prisons still use the bucket system with regular emptying. This leaves inmates susceptible to communicable diseases because they are usually conditioned to collect, transport and burry the faeces in the nearby fields; an exercise they perform with hardly any protective gears. Feecal sludge is hazardous to human health because it contains pathogens that cause deadly diseases such as cholera, typhoid, skin infections, diarrhea and dysentery. However, research has proved that human waste is source of wealth that only needs to be ecologically managed to harness benefits.

The ATC undertook initiatives using the case of Kauga prison to study appropriateness of ecological sanitation technologies at institutional level. In December 2012 a four stance Urine Diversion Dry Toilet (UDDT) was constructed in the female section, Kauga Prison to serve a total of 25-35 female inmates. The UDDT was constructed with a pit of about 1m deep and the squat pan having a provision for separation of urine from faecal. The facility is a permanent option that has to be emptied for reuse when full. Success of the UDDT technology usually depend on strict separation of urine and faeces as well as effective application of ash every after use.

What makes the UDDT a successful technology at Kauga Prison?

The success story presented herein is based on interviews with the female inmates and prison management who attribute to factor elaborated below.

The prison community did not know ecological sanitation technology at the time of introduction. As such, they had lots of doubt about its ability to provide a safe sanitation solution because the pit looked relatively shallow compared to the targeted population. There were fears that the toilet would soon flood with faeces however with time they developed a positive change of perception.



It is important to note that the prison population by default keeps changing i.e., inmates keep on coming and going something that would make operation and maintenance of the facility difficult. However, the prison management developed a sensitization and maintenance strategy to ensure continued flow of user knowledge. Peer leaders (fellow inmates) by obligation sensitize all the new entrants on how the toilet facility operates. Owing to its simplicity, the newcomer is usually given a lesson of less than five minutes on how to use the toilet. The leaders also oversee the daily operation and maintenance of the facility. They developed and strictly follow a routine cleaning roster besides encouraging users to clean the toilet every after use.

The female section is pretty small and as such the toilet facility is constructed next to the veranda. For that matter, inmates commit to maintaining the facility sparkly clean for fears that in case of mismanagement; “faeces, urine or lava can easily spread everywhere to the disgust of everyone”. In addition, they have a desire to leave healthy and continue with life after prison. One of the inmates pointed out that, “*today we are in prison and tomorrow we shall be free. So it is important that we protect ourselves by practicing safe sanitation and hygiene*”.

Another factor to highlight is the positive attitude towards emptying of the toilet facility. It was pointed out that one stance of the toilet is in use at a time and this fills up within two months. Therefore, the 4 stances fill up within 8months. The stance that filled up first would have undergone composting for at least 6months and the sludge will have turned into compost at the time of emptying for reuse. Pit emptying is done by the female inmates themselves who collect the compost in polythene sacs (Buveera) and dispose in the garden outside the prison. Inmates indicated willingness to empty the toilet because the exercise is quite easy since what is removed from the toilet is not disgusting, does not smell and not different from the ordinary soil.

Health benefits accrued by the prison community

The prison administration indicated a positive health change experienced by the entire community as a result of the two facilities provided by the ATC i.e., the UDDT and the unit for drinking water purification using solar. The nurse indicated that before, there was frequent outbreak of diseases like diarrhea but this has gradually reduced. She backed her case with clinical records indicating that,

“the prison clinic was prior supplied with two tins of fragile quarterly that would get finished when the quarter is just half way and they would often supplement with two more tins... gradually, the consumption of fragile has reduced. Now the two tins supplied takes us through the quarter with a surplus”.

She further indicated that, on a monthly basis the clinic would receive between 20-30 cases of diarrhea but the number has reduced to about 5 or even less cases and where inmates are diagnosed with diarrhea, it is usually a sign of malaria. Specific to female inmates the nurse indicated that; there were a lot of candida and pelvic infection cases but this has tremendously gone down to 1-2 cases and usually these are new admissions.

Conclusion

The success of UDDT at Kauga Prison is attributed to appreciation of the facility, operation and maintenance strategy that ensures a continued sensitization chain, positive attitude towards toilet emptying, relatively small place and small number of users; conscious about health and have hope in life after prison. The facility together with the drinking water purification unit have positively impacted on the lives people in the prison community. Based on the above, if lessons are taken, ecological sanitation can be used by institutions with similar conditions.

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