

APPROPRIATE TECHNOLOGY CENTRE FOR WATER AND SANITATION

The State of Sanitation and Hygiene in Prisons in Uganda: A Case Study of Kauga Prison, Mukono District





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Compiled by: Asha B.N. Bamutaze

Contact Address:

Appropriate Technology Centre (ATC) Upper Kauga, Prison Road, Mukono P.O. Box 748 Mukono, Uganda Telephone: ⁺256 (0) 414 690806 Email: atc.mwe@gmail.com http://www.atc.washuganda.net

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Abstract

Prisons are places of rehabilitation but only 1% of their total budget is committed to Water Hygiene and Sanitation (WASH). Kauga is one of the prisons in the country that have enormous WASH challenges that put not only inmates and staff but also the neighboring community at a risk. The prison's total population exceeds the carrying capacity, exerting pressure on the meager resources available and thus supplies like soap are rationed but still remain inadequate. That sanitation chain is not appropriate i.e., facilities available are inappropriate to support such large numbers, leaving the entire prison in a compromised situation that condition them to resort to unhygienic impractical practices such as burying fresh faecal waste. There is evidence of lack of basic hygiene knowledge on the side of the prison management, something that has greatly influenced poor behavior and inappropriate WASH practice.

There is need for urgent intervention with hard and software activities to influence behavior change and practice. The prison top management needs to devote more resources to improving WASH in prisons as a remedy to the high prevalence of communicable diseases. This baseline indicates that inmates welcome both the idea of ecological sanitation and biogas technology.

It is evident that WASH situation is appalling in the prisons and thus a basis for ATC to take on Kauga prison as a demonstration centre for research on selected technologies that would be suitable for such institutions. Among the technologies to be studied in Kauga prison are; solar wave water purification to address the issue of untreated drinking water, ecological sanitation latrine for women section and use of vamicomposting technology for treatment of feacal sludge from the male section. Reports will be availed to guide uptake of the technologies in similar institutions.



1. Introduction

The prisons act 2006 mandates Uganda Prisons Service (UPS) to provide reasonably safe, secure and human custody and rehabilitation of offenders (inmates) in accordance with universally acceptable standards. However, prisons in the country hardly have adequate funds to facilitate a healthy environment for the inmates. The UPS has no functioning Water, Sanitation and Hygiene (WASH) system; living conditionsremainunacceptablypoor, something that is partly attributed to congestion with a space of one being comparatively occupied by two people or more¹.

Kauga prison was constructed in 1954 to accommodate 200 inmates. Being a regional prison that serves the East Central districts of; Mukono, Buikwe, Kayunga and Buvuma it takes in much more beyond its capacity. There are times when the prison takes in as more as 300 but by the time of this survey, it had about 219 inmates (199 men and 20 women). Some inmates stay for a short time well as others for relatively longer period of time depending on the gravity of the offence committed. The ATC undertook initiatives to explore the Water, Hygiene and Sanitation (WASH) status of the prison with the plans of intervening with action research whose findings would be beneficial to the entire Uganda prison fraternity.

Data was collected using questionnaires, individual interviews, observation guide and open discussion with the inmates. Data was triangulated in a comprehensive single report. All inmates were involved in the study to give an all-inclusive picture.

¹Byamugisha (2012)



2. Sanitation and hygiene in the 'camera'

From a visitor's perspective, the prison is spectacularly clean with a sparkling compound and utensils used i.e., jerrycans, saucepans and plates are well looked after. However, the general hygiene conditions explored at length raise a number of health concerns. For example one inmate expressed concern that, "the same container we use for cleaning our excreta after long call is the same one used to draw water from the taps for other works and this is unhygienic and disgusting" one of the inmates said.

2.1. Bathroom and bathing facilities

There is allowance for inmates to bathe at least once a day though 18% sometimes do not bathe. The male section has a number of challenging issues partly due to large numbers.

Like in Luzira upper prison where in some wards the ratio of bath facilities to inmates is 1:140², Kauga prison has limited bathroom facilities that are mainly used by a selected few who happen to be inmate leaders. The rest bathe in open space with hardly any privacy. The inmates bathe between 1:00pm - 3:00 pm from open space within the prison yet their fence is just a transparent wire mesh. The other issue especially affecting the male inmates is the bathing time which is too insufficient for them to bathe thoroughly. To show disgrace, one inmate asked; "madam, having spend a day in the fields working and handling dirty things including feaces, can you bathe in one minute moreover without soap and get clean?....that is what we do".

²Data from the Prisons Health Inspectorate, 2012



Around 30 inmates are allocated 5 minutes as bathing time which is strictly observed. Six inmates share one bathing container (capacity of approximately 50ltrs) and a piece of soap to be used for a week. A container of water for six inmates is often not enough as they are always 'fighting' to get a fair share. Besides, soap is only seen once because some group members steal and hide it.

2.2. Hand washing facilities and practice

There are jerrycans filled with water and placed in the compound for inmates to wash their hands when they have to. Indeed some do wash at critical times but others do not bother (Figure 1 below).



Figure 1: When and how inmates wash hands

Inmates wash their hands after different exercises as showed in the figure above. However, quite a number of them wash hands without soap even after visiting the latrine. Some inmates are knowledgeable about the dangers of washing hands without soap but cannot do much to better their personal hygiene because they do not have enough soap.



Hands are the main pathways of germ transmission³. Inmates not washing or washing without soap at critical times make them susceptible. It could be a good idea for prison management to change approach i.e., instead of buying soap which is not enough, they could buy local ingredients and facilitate inmates to make their own soap which could even be cheaper and sufficient.

2.3. Anal hygiene

Anal hygiene practice at the prison leaves a lot desired. Inmates are not provided with or allowed to use any anal cleansing materials. One inmate pointed out that management does not "allow us to use anything like toilet papers or even ordinary papers because we some of us might throw them in the latrine. We are not supposed to throw anything in the latrines apart from urine and feacal matter ...". The only option these inmates are left with is to use their hands and water without soap to clean their bottoms after latrine use. "We use our bare hands to clean after long call and there after walk a distance to a small washroom and clean our hands with only water" one of the female inmates narrated. Commenting on anal cleaning practice, the Officer in Charge (OC) of the prison pointed out that if allowed to use any form of tissue, they might end up blocking the entire system and unblocking would be costly; that is what the prison prevents use of any external tissue. This is totally unhygienic and inmates are aware of the dangers. One inmate expressed fears that "using hands to clean the anus and wash without soap is ... makes us vulnerable to diseases like diarrhea, typhoid, skin diseases and stomach upset....the entire practice makes us eat our own feaces because we use the same hands".

³WHO (2009).



There is need for sensitization of prison management about the dangers of unsafe practices and also to rethink appropriate cost effective interventions to enable health living of both the inmates and staff.

2.4. Latrine type Operation and Maintenance

Apparently, only 1% of the total prison budget is committed to WASH. There are 236 prisons in Uganda out of which 170 still use the bucket system⁴. Kauga prison uses different latrine options for men and women. In the male section, they have pour flush latrines located inside the wards for use at night and outside pit latrines for use during the day. In the women section, there is only one latrine located inside the ward, having a container that is emptied when full. The container used is shallow and gets filled up very fast. Female inmates themselves do the emptying on a weekly basis which they claim to be disgusting. Part of the prison land doubles as a garden and burial ground for fresh feaces from the latrines. The process of empting latrines and burying fresh faeces is not safe because it is done with limited protection, exposing inmates to preventable diseases. "We empty the latrine with our naked hands and no gumboots. After, we wash without soap and even eat food using the same hands" (said one of the inmates). However, the management indicated that, though empting is done regularly, it is not a weekly basis as claimed. The inmates also lamented that; in the process of burying the fresh feacal matter, they sometimes find themselves stepping and getting in contact with recently buried feaces because they keep on burving on the same piece of land.

⁴2012 data from the Health inspectorate, Uganda Prisons



The neighboring communities including ATC are equally as vulnerable as the inmates and prison staff to any preventable outbreak that may befall the prison as a result of poor hygiene and sanitation practices.

Though the male section has pour flush latrine systems, they actually do not flush. The inmates just carry some little water (about 2 liters) in a container and pour in the latrine after use. The challenge pointed out here was that water used is not sufficient for thorough flushing of faeces and thus, it remains in the system and splash back to another user. It was also pointed out that these latrines smell a lot and at night with limited ventilation, the odor is too much, causing stomach upset to some of the inmates. Given the high population, the sock pit for the latrines get filled up very often and pointed out that they do the emptying with hardly any protective gears like their counterparts the females. However, management indicated that they provide some light gloves which might not be sufficient.

The outside pit latrines are also not sustainable because they fill up very fast due to the large population served. On average about 50 inmates use one latrine stance but the figure fluctuates in relation to intake. As neighbors, we observed that; the prison constructs pit latrines at least twice a year; that is to say, if one is constructed at the beginning, another one is constructed towards the end of the same year. Apparently all the outside latrines are full. Given the limited land space soon the prison will have no space for latrine construction.



The inmates desire a change; most female inmates want the WASH facilities improved. 31% women and 11% men would like the process of latrine emptying changed to protect their lives and majority of men (64%) wish to have well constructed bathrooms (figure 2 below). One of the inmates requested that; "provide us with gloves and gumboots to ease latrine emptying otherwise, we are suffering and might develop terrible diseases while inside the prison because of the poor conditions under which we operate"



Figure 2: What Male (Left) and Female (Right) inmates would like changed about their Life in Prison

The situation in the prison exposes inmates to several diseases which are transmitted from human faeces via contaminated hands, soils, water and insects. There is thus ardent need to ensure human dignity by promoting safe sanitation, ensuring safety and convenience to all users. Inmates suggested that the prison constructs a new user friendly latrine with more stances to save them from queuing for latrines, get bigger feacal collection containers which will take longer periods before empting. The prison should provide anal cleansing materials and stop promoting unhygienic practices that might lead to cholera outbreak.



3. Ecological sanitation and biogas

The concept of ecological sanitation was relatively new to most of the inmates but they showed willingness to embrace it. One inmate pointed out that, "I have no problem eating food fertilized with human wastes because, in life we eat a lot of things [he related to the chicken that is everyone's favorite on plate].... the chicken we eat and enjoy very much eats many things i.e., worms and even human feacal waste but we happily eat it". The other inmate added that; "when food is cooked, all the danger is gone". Thus introducing ecological sanitation concept especially using manure from human wastes to boost agriculture may not face hard reception to this community. However, using ecological sanitation latrines by the same community is debatable. For women section because they are few in number Urine Dry Diversion Toilet can be used but for the female section, another latrine technology i.e., lined pit latrine for emptying can be adopted. Still with the lined pits option, ecological sanitation can be promoted using the vamicomposting technology⁵ to manage feacal sludge.

For the case of Kauga, the idea of using ash in latrines needs to be thoroughly discussed with prison management. Much as the inmates would find it okay, they were skeptical to use ash because it is prohibited and a punishable offence in the prison.

Biogas is also welcomed by both the inmates and management.

⁵Water for People and ATC are carrying out research on management of faecal sludge using tiger worm vamicomposting and black soldier fly larvae to digest organic material and either produce manure of chicken feeds.



They actually saw it a relief from the burden of emptying un-composted feaces. One inmate made it clear that; if biogas makes our food ready, it would be a great opportunity to even save us from touching our faeces, emptying the fresh faecal sludge. The option of biogas would actually save the prison the burden of buying wood fuel.



Unsafe sanitation chain

Fiugre 3. Summary of Kauga prison sanitation chain

Apparently, Figure 3 above shows that the sanitation chain in the prison is appalling. Poor containment options, inappropriate sludge managementand disposal pose a great danger to the community. There is need to provide better facilities but also important is sensitization of both the prison administration and inmates to influence behavior change so as to promote decent containment, treatment and disposal of feacal wastes with the aim of ensuring safe sanitation chain.



For instance, disposing off faeces in the gardens would be ideal if well treated. Feacal wastes form a key ingredient of ecological sanitation. In the same scenario, the prison can use it for biogas which would provide a sustainable fuel alternative.

4. Drinking water

At Kauga prison inmates are provided with drinking water that is not treated. This was revealed by 92% of the respondents. To some inmates, this is risky since they were used to drinking boiled water from their homes. Though they have nothing to do about it, inmates leave in fear of contracting waterborne diseases. Commenting on drinking water, the OC pointed out that, the prison used to boil water for inmates using wood fuel but it was very expensive and unsustainable. The prison nurse added that, for some time they used water guard but majority of the inmates could not drink the treated water claiming that the medicine was intended to make them 'impotent' and this would affect their ability to perform marital duties when rejoined with their families. One learning from this reaction is that; any intervention to improve the quality of drinking water for inmates has to as well involve massive sensitization and cultivation of confidence in the technology because it might as well be rejected. ATC is thinking of studying the solarwave water purification technology at Kauga prisons. This technology is appropriate for institutions but a thorough report on uptake challenges and potential will be availed.



5. Disease prevalence

The prison declined to provide us with the statistics indicating disease prevalence among inmates but statistics from the questionnaires indicated the most common diseases at the prisons are; skin diseases, diarrhea/dysentery, flue/cough and malaria (Figure 4 below), some of which can be prevented with change in WASH practice.



Figure 4: Commons Diseases among inmates

Prisons countrywide face poor management of communicable diseases as evidenced by lack of adequate rooms to separate the sick inmates from others in wards which are already congested besides medical facilities being limited⁶. At Kauga, male inmates are more overcrowded thus their situation is very critical. They for example have more cases of skin diseases and diarrhea. It is in their section that latrines are constructed every now and then thus; the prison management requests that for any appropriate intervention, the males section should be given high priority.

⁶Office of the Auditor General (OAG, 2010).



6. Conclusions and Recommendations

The WASH conditions at Kauga prison is appalling and thus the urgent need to intervene with workable solutions such as construction of an 'ideal' sanitation facility, sensitization of the prison management and inmates about basic hygiene practices, dangers likely to befall the prison and how to ensure safe sanitation and hygiene practices in a situation of limited finances. There is also need to cultivate a positive attitude of inmates to enable successful introduction of low cost water treatment approaches.

For the females being few in number, an ecosan latrine (UDDT) can be introduced to save them from the challenges of handling fresh and untreated feaces on a weekly basis. The male section needs intervention with a different technology other than UDDT because of the large number and for that reason, ATC and WfP are planning to apply vamicompisting technology. The other option that would work perfectly well for the male section is biogas technology and this would actually save them of wood fuel. It is important to note however that, prisons have a challenge of segmented sectoral operations and priotization in addition to both inmates and staff being mobile. This is a key test to any possible intervention aimed at improving WASH in prisons. For any technological interventions in such institutions there is need for situation analysis, involvement of stakeholders and documentation to guide scaling up and to ensure effective use. continuous mobilization and sensitization is needed.



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