Theme: Session 4: Attitudes and Advocacy

Oral presentation

Prejudices and attitude change to dry toilets in South Africa

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ABSTRACT

More than 40 000 dry toilets have been supplied as basic sanitation facilities in South Africa, but the use of human excreta for maintaining soil resources is not generally being promoted. The CSIR has been investigating users' perceptions and attitudes towards urine diversion sanitation (UDS) in South Africa for the past seven years. The main findings were that people were aware of the fertiliser value of faeces but not of urine and that only some were willing to use the faeces in their gardens. Although most people did not ascribe any cultural values, beliefs or taboos to human faeces or urine, it was generally considered totally unacceptable for people to handle human faeces, especially concerning food production. Food and human faeces are not supposed to be even mentioned in the same breath. Urine is also perceived as harmful to plants, even though babies' urine is used for medicinal purposes, for example treating eye infections. A person could also be infected by handling human faeces and by inhaling the smell of it. A number of chest infections, such as influenza and colds, were said to have been caused by the smell of human faeces. However, in most cases the users were not aware of the correct transmission routes of excreta-related diseases and, for example, focused on keeping the floors clean in the UD toilet as a prevention method for diseases, in stead of keeping the pedestal clean and washing hands.

In South Africa the perceptions and beliefs of the users represent a major stumbling block to the use of the products from dry toilets, a strategy needs to be developed to facilitate attitude change and a mind shift with the users, i.e. selling the concept and principles of ecological sanitation. Community participation in the implementation process of projects and the ongoing monitoring and evaluation should be a priority, considering that the dry toilets are a new system and need to be managed correctly if the goals of ecological sanitation are to be met. The problems are usually caused either by a lack of sufficient involvement of the community during the introduction and implementation phases, or because the users did not want to handle human excreta.

Keywords: dry toilet, urine diversion sanitation, users' perceptions, attitudes, use of human excreta, awareness raising.

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INTRODUCTION

In South Africa it was recognised that the country could not afford to provide waterborne sanitation for all its citizens – nor, for that matter, should it necessarily aspire to do so. The Strategic Framework for Water Services (DWAF, 2003) defines basic sanitation services in South Africa as the provision of a basic sanitation facility; the sustainable operation of the facility, and the communication of good sanitation, hygiene and related practice. No mention is made in the policy of use, reuse or recycling of household waste products, of minimizing impact on natural resources or of provision of sanitation services in a manner that results in efficient use of natural resources.

The National White Paper on Basic Household Sanitation (DWAF 2001) is based on a set of principles where sanitation is about being a human right and about environment and health. Sanitation improvement must be demand responsive and supported by an intensive health and hygiene programme. The programme should ensure community participation and integrated planning and development. The programme should also ensure cooperative governance while at the same time promoting delivery at local government level. Sanitation services provided should be affordable and sustainable to the households as well as to local government.

Many community sanitation schemes have been successfully implemented utilising VIP toilets. Unfortunately, others have failed, usually due to poor design and construction practices or to social factors such as a lack of community buy-in, or a combination of these. New or unknown technologies are often viewed with suspicion or rejected out of hand. Some cultural beliefs and practices may also make it difficult to introduce alternative technologies into a community (Austin and Duncker 2002). Although more than 40 000 dry toilets have been supplied as basic sanitation facilities in South Africa, use of human excreta for maintaining soil resources is not generally being promoted. South Africans generally regard human excreta as a waste product, but biophysical concerns such as land degradation, declining soil fertility and limited phosphorus reserves have made it necessary to determine means of changing this perception to one that views excreta as a valuable and useful resource.

The CSIR has been investigating users' perceptions and attitudes towards urine diversion sanitation (UDS) in South Africa for the past five years. Several research projects were conducted across four of the nine provinces of South Africa to include the different tribal and cultural groupings of our country, because attitudes and perceptions about health hazards and people's revulsion or acceptance of human faeces and urine vary between

cultures, and often people's attitudes towards urine also differ from those towards human faeces.

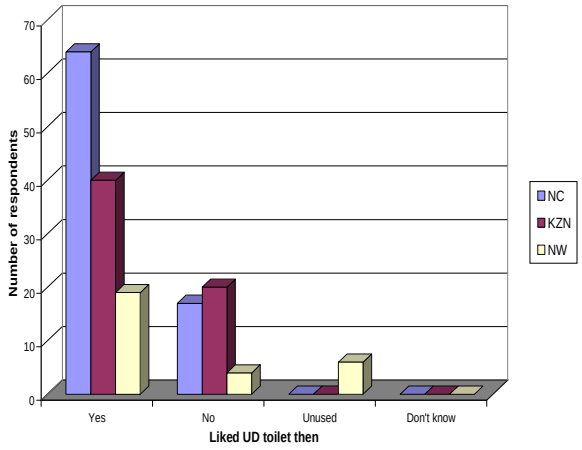
RESULTS

The main findings were that the users of dry toilets were aware of the fertiliser value of faeces but not of urine, and that only some users were willing to use the faeces in their gardens. Although most people did not ascribe many cultural values, beliefs or taboos to human faeces or urine, it was generally considered totally unacceptable for people to handle human faeces, especially concerning food production. Food and human faeces are not supposed to even be mentioned in the same breath. The general perception of human faeces was that a person could be infected by handling it and by inhaling the smell of it (Duncker, 2006). A number of chest infections, such as influenza and colds, were said to have been caused by the smell of human faeces.

Urine is also perceived as harmful to plants, even though babies' urine is used for medicinal purposes, for example treating eye infections. However, people tend to use a night bucket which is emptied in the yard in the mornings. Men and small children also urinate in the garden. In this way people unintentionally return some of the nutrients in urine to the soil.

However, in most cases the users were not aware of the correct transmission routes of excreta-related diseases and, for example, focused on keeping the floors clean in the UD toilet as a prevention method for transmission of diseases, in stead of keeping the toilet pedestal clean and washing their hands. The dry toilets were cleaned by sweeping, washing and polishing the floors, using a mop or a brush and soapy water to clean the urine bowl and urinal and using a damp mop to clean the interior of the bowls. The mops, brushes and cloths were washed outside under the tap and either hung in a tree to dry or stored in the toilet for use in the toilet only. The cleaning of the floors of the toilet were more important as a sign of a clean toilet than a spotless pedestal because it was easily observed whether the floors were clean, whereas it could not be easily observed that the pedestal was clean.

Initially, when the first urine diversion toilets were built in South Africa, the users of these toilets liked them, because they were properly built (i.e. structure made from bricks, a seat with a lid, locks on the doors, etc.) compared to the pit or VIP toilets that were built from reeds, corrugated iron, mud, pieces of plastic or cardboard, etc.



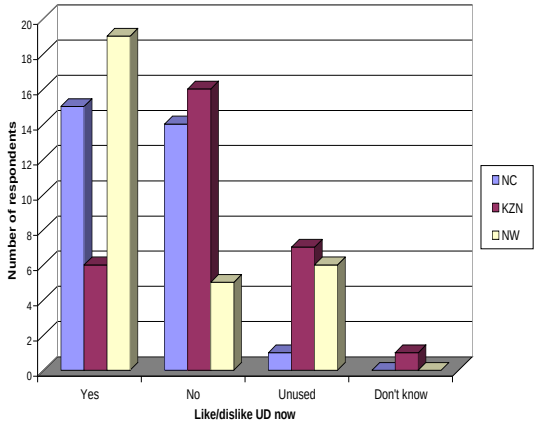


Figure 1: Liked UD toilet then

Figure 2: Like UD toilet now

However, as time passed and after using it for a while, users' interest in the UD toilet decreased mainly due to problems they experienced with emptying the vault and the maintenance (i.e. handling human excreta) of the UD toilets. The majority (86%) of users in the research areas did not want to empty the vaults; they felt it was unhealthy and unpleasant to handle human faeces (Matsebe & Duncker, 2005). Users also felt that it was easier to handle urine than faeces, as it does not have an offensive odour and women were used to changing babies' nappies and caring for the frail and the elderly. The users liked the UD toilets as a toilet but not as a technology. Any sanitation technology, other than a flush toilet, is still seen in South Africa as sub-standard to the flush toilet and only meant for the poorest of the poor (Austin, Duncker *et.al.* 2005).

In South Africa, the perceptions and beliefs of the users represent a major stumbling block to the use of human excreta. The message to use urine as a fertilizer is not convincing to the people either, as with the urine diversion toilet built in the communities in South Africa, the urine is piped into a soak away and no arrangement is made to collect it into a container for use at a later stage. The general norm of not touching human excreta is also strengthened by programmes and interventions such as the WASH campaign and other hygiene awareness programmes in South Africa. One of the purposes of the UD toilet is the use of dry faeces in the garden, which implies that human excreta need to be handled, an action that is contrary to the messages world wide on sanitation and hygiene.

Even though the use of dry human faeces is promoted, the users feel that it is unhealthy to eat vegetables that are grown in the dry human faeces, especially leafy vegetables that are in contact with the soil. Vegetables such as tomatoes and anything that could be picked of the plant itself and that do not touch the soil are perceived relatively clean and edible, but not lettuce, spinach, cabbage or any vegetable that grows underground (such as potatoes, onions, beetroot, carrots, etc); they are in direct contact with the soil that contains human faeces. Only when the human faeces is processed somewhere else by someone else and becomes unrecognisable as human waste, will it be acceptable to use.

DISCUSSION AND CONCLUSIONS

The research showed that most of the users accepted the UD toilet as a toilet only (mainly because they did not have a choice or the money to build a flush toilet). Their expectations are still to eventually have flush toilets. However, the acceptance of the UD toilet as a sanitation technology is very low. Only a few users were willing to use the human excreta in their gardens. The general norm of not handling human faeces is preventing the full implementation of the UD technology.

People are motivated by and act upon their perceptions rather than any rational thought process. People's behaviour is not motivated by narrow rational needs, but rather by what they 'feel' or 'perceive' their needs/wants to be. Their choice of sanitation or product to satisfy their needs/wants is influenced by their feelings towards it, their perceptions of it and its ability to satisfy their needs/wants. Perceptions influence behaviour, guide all behaviour, motivate or demotivate all actions and determine the future success of technologies. To manage the future of a technology, perceptions have to be managed, not manipulated, and applied to adapt the strategy of technology implementation and transfer to the tasks of creating, shifting, changing and managing perceptions. An attitude or a perception is one's basic 'mind set', one's outlook, how one view things. For example, people with different attitudes will view (perceive) the same situation from quite different perspectives. A particular situation will be seen as a problem to one person and an opportunity to another (Duncker 2005).

The use of the products from dry toilets will not happen automatically in South Africa, constant intervention and awareness raising will be needed to address the general norm of not handling human faeces. A strategy needs to be developed to facilitate attitude change and a mind shift with the users, i.e. 'selling' the concept and the purpose of ecological sanitation as a whole. Despite the fact that users of UD toilets knew about human faeces being used as a fertiliser, some could not understand how they were going to empty wet faeces and apply it in the garden, since some toilets had water in the vaults due to construction mistakes and incorrect operation and maintenance.

Ongoing awareness raising and training of the members of the sanitation committees, fieldworkers and community members in the principles and practices of ecological sanitation are necessary for the sustainability and success of urine diversion sanitation projects all over the world. Perseverance during training and regular refresher courses are required as it always takes time to change people's attitudes about new methods, practices or technologies. Demonstrations should show users what dry faeces combined with ash/soil/sand look like (no odour, faeces not in its original state) and how they should be applied in the gardens.

Local authorities and implementing agents in general make investment plans with little or no understanding of the needs or interests of the communities they serve. As a result, services do not meet the needs of the communities. Local authorities should conduct surveys to fully understand the needs, priorities, practices, and socio-economic and cultural characteristics of the urban poor and design projects accordingly. They should then conduct research on suitable technologies for particular areas rather than providing what officials deem to be suitable technologies. They should also explore various alternatives and liaise with institutions or service providers that are experts in sanitation technologies. Sanitation technologies and services should meet the needs and interests of the community and should be designed so that they complement existing practices.

Sanitation technologies should be selected to suit the physical characteristics and the culture of the communities, and to meet the various needs of the different social groups (such as the disabled, the aged and children).

Community participation in decision making processes during the introduction and implementation of urine diversion sanitation projects is vital, especially in South Africa. The problems in users accepting the dry toilet technology are usually caused either by a lack of sufficient involvement of the community during the introduction and implementation phases, or because the implementing agency conducted it only partially. The implementation process of a UD sanitation project is a joint venture amongst officials, politicians, service providers, as well as the community. The success of any project relies on the strong cooperation of the role players mentioned above. It should be acknowledged that the community, as the beneficiary, is a key factor throughout the process, and it is important to implement the project with the community members, not for them (community participation). Attention to gender aspects, taking into account the specific requirements of both women and men in ecological sanitation projects, is crucial for attaining the objectives of social justice and sustainability. The needs of communities differ; it should be borne in mind that project implementation should be tailor-made to suit the particular community, hence the importance of consulting with the community. If the whole process is implemented properly, the community will use, operate and maintain the UD sanitation system effectively, as they chose it (association with the sanitation system and the sense of ownership is strong). Once the projects are completed, ongoing involvement and support, as well as monitoring and evaluation, should be a priority, considering that dry toilets are a new system in South Africa and need to be managed correctly if the goals of ecological sanitation are to be met.

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