Demand Led Sanitation In Zimbabwe

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Whilst many sanitation projects have struggled to interest their beneficiaries in the positive advantages of latrines, Zimbabwe A.H.E.A.D. projects are battling to keep up with the demand for latrines from the communities.

This paper explores a methodology that works to develop a "Culture of Cleanliness" through the establishment of Community Health Clubs. Rather than starting immediately with the implementation of a water and sanitation programme, health education is used as the first point of entry into the project area. By the end of six months of health promotion, the move to improve home hygiene comes naturally to Health Club Members, who readily contribute towards upgrading their own sanitation.

In Matebeleland North Province of Zimbabwe, the technical problems of constructing latrines in collapsing Kalahari sands have made latrines expensive to construct and consequently sanitation coverage is often below 10%. To solve this problem, a technology has been devised that enables women to make interlocking bricks and line their own pits. Whilst the main cost is below ground, the superstructure is constructed cheaply with local materials, resulting in culturally appropriate and therefore sustainable structures.

Zimbabwe A.H.E.A.D is promoting upgradeable sanitation which sees *hygiene consciousness* as the most important prerequisite for safe sanitation.

Demand Driven Sanitation in Zimbabwe

Background to latrine construction in Zimbabwe.

Since Independence in 1980 the standard model of latrine approved by Ministry of Health has been the well know Ventilated and Improved Pit Latrine (VIP) which was initially developed in Zimbabwe and is know locally as the Blair Latrine. The country has been relatively successful in introducing this technology into the rural areas and it is now culturally acceptable to a large proportion of the population. However in recent years the rate of latrine construction has dramatically declined, and questions are now being asked if, under the present economic conditions, the only model approved by the Government is the most feasible solution.

The design in Zimbabwe currently recommended, is the '3 bag model' where about 70% of the total costs are borne by the householder who undertakes to dig the hole, make bricks, and pay for a builder to line the pit, which usually takes one bag of cement. When the householder has completed the project to ground level they qualify for a 3 bag subsidy to complete the superstructure. The end result is a brick structure which is an incongruous addition to a homestead otherwise constructed with mud, pole and thatch. At present with cement at US$ 5 per bag, a Blair Latrine costs US$20 in materials as well as an estimated US$80 in labour. This is well out of reach for most of the rural population in Zimbabwe struggling to make ends meet in an economy with a 60% rate of inflation.

The Controversy Over Superstructure

The conventional argument for subsidizing the superstructure is that if it is not properly built, the latrine will collapse within a season and never be replaced. However, this will only happen if a latrine is not perceived to be a necessity, and is merely a status symbol introduced by the project. If the family is convinced of the need for a latrine then logically, it will be maintained like any other locally built structure. A superstructure of mud and pole, with a thatch roof, will be maintained by the family, in the same way that they traditionally maintain their own home on an annual basis. However, the cynics will reply that it is difficult, if not impossible, to achieve this type of commitment to sanitation. If this is the case then even the concrete structure is a waste of resources unless it has been constructed for the right reasons and is well used.

Commitment to Sanitation

Zimbabwe A.H.E.A.D. Organisation has been able to create sanitation consciousness within communities, by starting the project with a Health Education phase rather than implementing sanitation immediately. Although hardware enthusiasts may become impatient with spending a whole year dedicated to software, they will be pleasantly surprised when the time for sanitation does arrive because many more latrines will be constructed in a very short time. In the Tsholotsho Project 1000 latrines were constructed in under six months, whilst in Makoni Environmental Health Campaign, 1,400 latrines were completed during the same period. When this is seen against

the National figures for Latrine construction for the previous year, which came to 8000 in total throughout the country, the 2,400 latrines constructed in two districts is an achievement.

Developing a "Culture of Cleanliness"

This commitment by the community is achieved by the establishment of Community Health Clubs. These are voluntary grass root Organisations established in every village which are dedicated to learning about healthy living with the view to improving family health. Over a six month period the clubs meet once a week and focus on 20 different topics, including water storage, hand washing, control of preventable diseases like diarrhoea, bilharzia, malaria, worms and skin diseases. They are so thoroughly grounded in the reasons for good home hygiene, that they become more fastidious than their urban counterparts. They go further than expected in an effort to outdo each others' cleanliness. Some clubs have taken a group decision that no member can shake hands with another person in the morning before washing hands first –a recommendation we had overlooked! Whilst we advocated the use of a ladle for taking drinking water, they have gone further in that their members are not allowed to hang the ladle up as cockroaches tend to sit in them, and pollute them.

Their kitchens are immaculate and one could literally eat off the floor, it is so beautifully polished. In Tsholotsho the women have become fiercely competitive, decorating their kitchens so that they have become an art form. Traditionally, women have always sat on a mat on the floor while their husband takes the bench. Now with their new-found confidence, they have elevated their own status and moulded impressive thrones in clay, which are provided and labelled not only for the father, but also for the mother and the children. Some have built in fuel saving stoves to avoid smoke in the kitchen, and others have new built in cupboards with mock handles to imitate a modern fitted kitchen in town. (all mod cons and bics!) Whilst these decorative effects don't necessarily improve home hygiene they indicate a high level of home pride. According to the women their men working most of the year in towns, are now delighted to return to their rural homes as the standards have been pleasantly upgraded.

The Sanitation ladder: Cat Sanitation

This perfectionism is carried through to their sanitation practises. Previously people were embarrassed to be seen going to the bush to relieve themselves. Now club members make a feature of their habits, by putting up a 'Badza Stand' in a prominent position in the compound. This is a forked branch, which holds a hoe, used for digging a hole for 'cat' sanitation. When they return from the bush, having covered their faeces properly, they wash their hands with soap using the plastic water container hanging on the stand. Below this is a plant strategically placed as an indicator of usage of the hand washing facility, as it will soon whither if it has not been watered regularly from the grey water. This method of 'cat' sanitation is technically a very safe

means of sanitation, and is the first rung on the sanitation ladder, a temporary solution until all members can be assisted in building a more permanent latrine.

Covered Squat Hole

The next stage up the ladder is to have a temporary shallow pit for defecation, whilst at the same time ensuring that faeces are well covered. A slab is made that can be moved, and a temporary structure is constructed around a shallow unlined hole. The soil used from excavation is used to cover the faeces and when the hole is full, the slab is moved to the next site. The slab can be eventually used when a permanent latrine is constructed. Not everyone can be convinced to use the manure that is a rich resource and could be profitably used to nourish a fruit tree, each time the squat hole is moved!

Local Ventilated Latrines (LVLs)

The essential part of the latrine is the pit, which must be safe enough to support the weight of the user on a slab as well as the superstructure. The problem of collapsing latrines is a common reason for the lack of construction. In Tsholotsho, the loose Kalahari sands have prohibited latrine construction to such an extent that it has one of the lowest sanitation coverages in Zimbabwe with less than 10% of households with a latrine. In order to line the pits properly a VIP in this area would cost Z$1,200 as opposed to $750 elsewhere. (US$1: Z$38, June 2000) Consequently very little has been done, until last year when a method of pit lining was developed within our Organisation, which enabled easy and safe pit lining. This consists of interlocking cement blocks which are now being made by women in the Health Clubs. They then assist each other to line their pits without even needing to employ a builder. Being able to do the whole job themselves means that they get on with the job without any constraints. With the substructure costing Z$350, using 2 bags of cement, there is a need to economise on the superstructive. This is made more cost effective because women build their own structure using traditional materials, and the result is a very attractive and appropriate building that merges with the local environment. A vent pipe using only three shovels of cement and river sand is also included which draws the smell upwards away from the latrine. The high thatch roof with the sweet smell of grass makes this a pleasant place to escape from the rest of the family!

Cement Tube Family Hand Washing Tank

Similar to the vent pipe, another innovation designed within our Organisation for the benefit of this project, is the ‘cement tube’ hand washing tank, which is also made by the women. Using one spadeful of cemen, a stiff mixture is made and put into a mould made from PVC pipes. With a wire handle set into the concrete lid, it can easily be refilled. A small tube plugged by a stick, serves as a economical water outlet. These are now being enthusiastically made as an income generating project by some of the Health Clubs, with the target that every household will buy one. With a permanent hand washing

tank and a permanent well-lined latrine, the household has reached the top of the sanitation ladder.

Sustainable Sanitation

Hygiene consciousness is the key to the sustainability of this project. The members of the club are completely committed to a set of values that ensure that their behaviour and facilities match their aspirations. Once someone is fully convinced that faecal contamination is the root cause of much family suffering, they take the logical course to rectify the situation. The main constraint that will prevent them acting on their knowledge is lack of money and transport for cement and sand. If the project can provide transport and a small subsidy there will be no constraints to inhibit latrine construction. In the wealthier areas such as Makoni, communities have been buying all their own cement from the Organisation and the only input from Zimbabwe A.H.E.A.D has been the transport for the cement.

Community Based Management of Sanitation

In Makoni District, the sanitation coverage is over 50% and it would be unrealistic at this stage to revert to building local ventilated latrines (LVLs) as is being done in Tsholotsho. However, It may be interesting to note the mechanism for cement delivery employed by Zimbabwe A.H.E.A.D in this area, where the conventional '3 bag' subsidy is still in effect. Normally the Ministry of Health field worker (EHT) is responsible for monitoring latrine construction in his area. Now however, the responsibility for this has been devolved to the community. The Club makes its own plans and when they have enough pits completed (minimum 60) to justify a delivery of cement, they notify the Field worker who then plans a delivery date with the Organisation. When the cement arrives the Chairperson of the Club, as well as the Councillor for the ward, accounts for those receiving cement and also keeps record of latrine completions, and monitors upkeep. This transparency of cement distribution has also encouraged the community to be fully involved and make the project their own.

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