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WATER AND SANITATION FOR ALL: PARTNERSHIPS AND INNOVATIONS

Towards sustainable sanitation in South Africa

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AN ESTIMATED TWO million families in South Africa do not have adequate sanitation. For these families sanitation is either the bush or a dilapidated unsafe and smelly long drop. Expectations of government's probable response to the need for improved sanitation after the transition to the new South Africa ran impossibly high. Professionals working in the sector differed widely regarding the approach that government should be adopting, ranging all the way from training and educating only (as in Lesotho) to fully subsidised water borne sanitation for all.

The Mvula Trust, a national NGO that funds community water and sanitation projects, adopted the middle ground between these two positions with its R700/site sanitation subsidy. In August 1994 it initiated a programme of 12 sanitation projects to pilot its work with rural sanitation. These pilot projects demonstrated that VIP type latrines can be built to an attractive standard on community based sanitation projects far more cost effectively than many had thought possible, thanks largely to the mobilization of the owner contribution and a funding policy which encourages thrift. The national government has now adopted a policy consistent with that tested by the Mvula Trust, and is preparing to invest significant resources in addressing rural sanitation in the next decade.

The provision of improved sanitation facilities does not necessarily lead to improved health within the beneficiary communities. For health to improve hygiene must also improve, and this will require a sustained and co-ordinated education effort. If the health education component does not come to fruition, South Africa's drive for improved rural sanitation is in danger of becoming just another toilet building programme. In 1996 the Health Education Awareness Task Team (HEATT), an inter-ministerial body, was formed to develop a programme for effective and sustainable health and hygiene education. The programme will require a long term commitment from many sectors. Much work remains to be done.

The Mvula Trust's Pilot Sanitation Programme

The Mvula Trust was established in 1993 with the mission of bringing safe water and improved sanitation to the poorest and more remote areas of South Africa. Operating on a demand-driven basis, it soon found itself swamped with applications for water projects, but the demand for sanitation projects was far behind. Of the few sanitation projects applied for, many were not fundable in terms of cost per capita or sustainability. Yet improved sanitation and health education is nowadays generally considered more important than a safe water supply in improving public health.

The Trust thus decided it would be appropriate to initiate a national pilot sanitation programme, incorporating several projects located around the rural areas of South Africa. Twelve project teams, drawn from agencies active in rural development, were tasked with, *inter-alia*, the following responsibilities:

- Local consultation to identify appropriate and affordable sanitation approaches suited to the region.
- Development of sustainable implementation approaches, particularly with regard to institutional and financial arrangements.
- Construction of demonstration facilities at relevant locations.
- Promotion of sound health practices.
- Marketing and promotion of VIP type latrines.
- Design and management of user-driven pilot sanitation projects, including training of local contractors.

The R700 subsidy policy

The pilot programme operated within the policy framework of the Mvula Trust, which *inter alia* incorporates a R700 domestic sanitation subsidy.

The R700 policy was controversial when it was published three years ago. Some felt strongly that South Africa should adopt the zero subsidy approach that has been used successfully in Lesotho, or a very limited subsidy such as that followed in Zimbabwe. Others, particularly politicians and officials working for local government institutions, wanted full subsidy in the cost range R1500 to R3000. The Mvula Trust adopted the middle ground between these positions. It should be noted however that since its adoption in early 1994 the purchasing power of the R700 Mvula subsidy has decreased in real terms by 33 per cent, so that the value of the subsidy is continually diminishing.

A criticism of the Mvula Pilot Sanitation Programme is that it did not address the issue of how to promote sanitation in a zero or minimal subsidy environment. To do so would not have been easy, however, because the Mvula Trust's policy of the R700 sanitation subsidy had

been well publicised in a series of provincial workshops held in 1994. To have run an Mvula Trust project on a basis other than the Mvula policy would have been difficult, particularly given the high level of expectations in South Africa. Even with the R700 subsidy many of the pilot projects encountered opposition and interference from local politicians who gave the people to believe that the government would serve them without any need for an individual contribution.

Lessons learned

Table 1 gives a summary of some of the salient details of the different pilot projects. Among the *lessons* learned in the programme were the following:

- The pilot projects showed how a finite end-user subsidy works to limit costs and mobilize the contributions (labour and cash) of the ultimate beneficiaries. After sufficient training it is possible to produce attractive VIP latrines of fair quality using community based subcontractors and community management, although some external management and monitoring will always be required.
- In the case of every project there was a large demand for toilets by the time the pilot project had completed. This was in spite of the fact that the subsidy did not cover full costs. Coupled with effective health education, end-user subsidies do effectively generate momentum to reach the goal of sanitation for all.
- Fairly intensive training is required at the start of a sanitation project. This training or pilot phase is needed: a) to demonstrate sanitation options; b) to train builders; c) to train the administrators; and d) to promote sanitation and hygiene.
- The level of outside management, supervision and training should be managed down after the pilot phase, but not too abruptly. The cost range per site from R240 in the short term to R80 in the longer term is probably appropriate. Lower levels than this are not attainable without risking the loss of accountability and/or administration breakdowns.
- In the case of the pilot projects funds were advanced and refunded against actual expenditure. It was found that most project teams were not very good at sticking to their subsidy limit (Table 1 refers), and moreover the quality of the expenditure records ranged from good to bad. Two conclusions can be made: a) payments should not be made against actual expenditure, but only against numbers of toilets completed; and b) the paperwork requirements should be kept very simple. It is recommended that the only documentation required for each tranche of subsidies should be a set of completion certificates signed by the homeowner, the local Sanitation Committee and a monitoring agent (engineer/clerk of works). The finer detail of costs incurred in doing the work should be kept on site and with an appointed project manager, available to be audited if required. A drawdown advance fund will be required.
- Four of the projects made good use of community drama to convey health and hygiene messages. Health education and drama should not be conducted in isolation, however. Drama teams should be employed by the Health Department to carry the sanitation message over their whole district, as was done in the pilot project at Mafefe.

Challenges

Amongst the *unresolved issues* coming out of the programme were the following:

- The Thembalethu community chose to build twin pit VIPs where their houses were built on very shallow soils. Within three or four years the first pits may be full, and it will be important to monitor how successfully the transition to the second pit is made. Even more important will be the monitoring of whether the community are indeed able to get their first pits cleared out when the second pits are full. If it is shown that the twin pit system works in this situation this will give encouragement to those other communities who are faced with similar problems.
- Superstructures tended to be built predominantly from concrete blocks, although there were exceptions (Ga-Rasai – corrugated iron, Thembalethu – locally made clay fired bricks, Mtumbane – asbestos sheets, Nkomazi – some used ferrocement). Concrete blocks help to promote the status of sanitation, but are costly. There is still a challenge to successfully research and promote alternatives. Perhaps the foremost alternative that has *not* been sufficiently explored is the use of soil-cement bricks produced using simple high pressure moulding systems.
- Although the pilot programme established good technical systems in delivering toilets the health and hygiene education that was delivered with the projects was variable. The best way to achieve meaningful long term health education is to train and support a cadre of community level health workers. This can only be done with the support of the Department of Health.

Health education

Six government departments were signatory to South Africa's Sanitation White Paper of 1996. These included the Departments of Water Affairs, Education, Environment Affairs, Health, Local Government and Housing. The white paper places a strong emphasis on health and hygiene education, exemplified by the following extract: "*Because healthy and hygienic practices are so important for achieving lasting health benefits, sanitation improvement programmes can never be confined to the provision of toilets by government agencies. People must be convinced of the need for sanitation improvements: so*

Table 1. Summary of salient pilot project details

Project	Preferred Option	Cash Cost per Toilet						Additional Owner Contributions
		Material	Labour	Transport	Total	Deposit	Cost to Project	
Dukuduku	Block with door	R633	R100	R70	R803	R0	R803	Dig pit, make 120 blocks, assist builder, provide door, frame, hinges, lock
Ga-Mashishi	Block with door	R537	R180	R40	R757	R50	R707	Dig pit, collect rock and sand to line pit
Ga-Rasai	Corrugated iron with door	R577	R200	R30	R807	R77	R730	Dig pit
Inadi	Phungalutho[1] with precast pit cover and roof	R610	R200	R120	R930	R0	R930	Level site, dig pit & foundation
Mafefe	Block with door	R760	R400	R236	R1396	R0	R1396	Only pits dug, but these were all demonstration latrines at institutional sites
Mbazwana	Phungalutho with lined pit, moulded roof	R500	R500	R100	R1100	R300	R800	Level site, dig pit, fetch water
Mtumbane	Phungalutho with corrugated fibre cement sheets.	R700	R300	R0	R1000	R30	R970	Dig pit, assist builder, transport all materials from store to site
Newline	Block with door.	R590	R180	R25	R795	R120	R675	Make blocks
Nkomazi	Both ferrocement spiral and block with walkaround	R455 R550	R300 R300	R25 R25	R780 R875	R74 R174	R706 R701	Dig pit, make blocks , assist builder.
Thembalethu	Dependant on soil depth, single pit or double pit clay brick with door.	R693 R496	R90 R65	R25 R25	R808 R586	R0 R0	R808 R586	Dig pit, assist builder, collect sand and water, provide door, frame, hinges and bolts.

much so, that they will invest their own resources into those improvements and spontaneously encourage the practice of good hygiene."

There is thus no question that all parties agree on the need for health and hygiene education, but in practice the education that is taking place is fragmented and poorly supported. The Department of Health is being encouraged to take overall responsibilty for the co-ordination and support of health and hygiene education. Although such education is regarded as an integral part of infrastructural projects by the implementing departments, there is still too large a gap between their good intentions and the reality on the ground.

Health education awareness task team

In 1996 an inter-ministerial body known as the Health Education Awareness Task Team (HEATT) was mandated to develop a health and hygiene education programme to compliment development projects in the country. HEATT's first task was to review the current status of health and hygiene awareness in South Africa. One of its key findings was that community health workers and teachers represented the most appropriate resource to deliver the health education message. The former are an under utilised resource, and can deal with sanitation issues at the same time as they cover the other priority issues, such as sexually transmitted diseases, AIDS, tuberculosis and breast feeding.

HEATT is now facilitating the development of a programme to strengthen the capacity of environmental health officers, clinic nurses, local development committees and local government to carry out health and hygiene education. It is realised however that behavioural change is a long term process that can only be achieved through a long term presence.

The way forward

Responsibility for the expansion of sanitation and hygiene to a national full scale programme is vested in the National Sanitation Co-ordinating Office (NaSCO). NaSCO co-ordinates Sanitation Task Groups in each province, each comprising representatives from government departments and other relevant parties (e.g. water boards). Through these task groups sanitation projects and health education programmes will be launched and managed. A subsidy of R600 per family has been adopted. All new projects will start with a pilot phase, which will be focused on training, demonstration and education.

It is estimated that two million families in South Africa are without access to adequate sanitation. Much work remains to be done to make a meaningful impact on this backlog.

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[1] The Phungalutho latrine is a VIP type latrine developed by Don Crawford, University of Natal, which is characterised by a domed and offset pit with a vaulted pit cover.

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