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Discussion group report: Design and construction of latrines and implementation of sanitation programmes

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PUBLISHER

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VERSION

VoR (Version of Record)

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REPOSITORY RECORD

Katerega, J.K.. 2019. "Discussion Group Report: Design and Construction of Latrines and Implementation of Sanitation Programmes". figshare. <https://hdl.handle.net/2134/29749>.



13th WEDC Conference

Rural development in Africa Malawi: 1987

DISCUSSION GROUP REPORT

Design and construction of latrines and implementation of sanitation programmes

Chairman: C.L. Chirwa

Rapporteur: J.K. Katerega

Discussion papers: (i) R.A. Bocarro and C. Williams

(ii) & (iii) L. Matjama

(iv) Muller and Monteiro

Discussion paper i) was introduced by Mr Bocarro who outlined the various technical aspects covered under the experiment for upgrading sanitation systems in Maseru - Lesotho using the Low Volume Flush Toilets (LVFT) being developed.

Some of the issues covered under this experiment include:

- installing a number of LVFT in Maseru and monitoring their performance,
- connecting the LVFT to conservancy tanks of reduced volume design to respond to the LVFT,
- encouraging residents of Maseru to start installing LVFT and Low Volume Septic Tanks for their house sanitation system,
- trying the connection of the Ventilated Improved Double Pit latrines (VIDT) to the low volume septic tank while emptying the kitchen sink waste water into modified long shallow trenches (10 m long x 1 m deep and 0.5 m wide).

Cost saving was mainly in:

- reduction of water used from over 10 gal per flush for a convenient flush toilet to 3 gal per flush for the LVFT.
- Also reduction in septic tank construction cost was reported from over £300 for the conventional to less than £225 for the low volume septic tank.
- The connection of the VIDP to the low volume septic tank also reduced the frequency and therefore the cost of emptying the VIDP.

Discussions:

In the discussions, delegates agreed that there was a need to offer upgrading sanitation possibilities and to take this into account when planning for low income residential areas. If not offered, the residents themselves will always find ways of upgrading their systems in an unplanned and unorganised manner which creates more sanitation problems later on.

- Examples of such cases were given by delegates from Lesotho and Malawi.
- The approach and problems of voluntary relocation of people to areas with already upgraded facilities were also discussed. At present, various levels of sanitation options operate side by side which is not conducive to upgrading an area to a small bore sewerage system for example in Lesotho, such ideas tend to be limited by land ownership and complex settlement patterns.
- The issue of reducing or eliminating completely the use of pipes to soakaways was discussed and found to be desirable as another means of reducing cost in the sanitation system.
- Also planting of grass over the long shallow trenches was proposed as a means of increasing their efficiency.

Discussion papers ii) and iii) were introduced one after the other by their respective authors and then discussed together.

The author of paper ii) from Lesotho outlined the main objectives of the overall National Rural Sanitation Programme and that of the pilot phase of the Rural Sanitation Project in Lesotho.

The main objective of the pilot phase was to design, develop and demonstrate a low-cost sanitation system using simple latrines suitable to the rural conditions and at the same time affordable and acceptable by the local people from the social-economic and cultural point of view and which is easy to maintain with minimum environmental pollution.

He outlined the implementation process of the pilot phase including:

- the design of the VIP latrine,
- construction of demonstration latrines in public places and at some local leaders (chiefs),

- training of local builders how to construct the latrines,
- health education and promotion of the use of the VIP latrines by the rural communities,
- monitoring and evaluation of the use and performance of the latrines etc,
- the institutional arrangement which included the ministry of health and that of inferior and the local chiefs for implementing this pilot phase.

He pointed out that a number of the rural families could not afford the cost of building the VIP latrine and therefore the idea of extending loans to these families to build the latrines was being considered.

The author for paper iii) outlined work in urban areas of Mozambique where VIP latrines are being sold to the rich first and later to the poor families.

The introduction of the VIP latrines to the rural areas of Mozambique was regarded as inappropriate due to a number of constraints. Current surveys indicate that less than 20% of the rural families have any kind of latrine. VIP latrines are not the priority of the rural people in Mozambique and the problem of the high cost and transportation of materials in the rural areas would make them fail if introduced.

Issues discussed relating to the two papers included:

- design standards and affordability of the VIP latrines by the rural people,
- maximum local people's participation in the VIP latrine programme including the local leaders and chiefs,
- health and sanitation education and promotion to be part of the VIP latrine programme to complement each other,
- implementation strategy to include institutional framework with maximum community participation to ensure continuity when public inputs are phased out of the programme.

In design standards, it was stressed that minimum standards should be aimed at with maximum use of the available local materials and human resources. Therefore, VIP latrine designs should be both easy to construct and affordable by the rural people.

On participation by the local people, the use of locally based administrative structures for project implementation was stressed. This would ensure continuity and success of such projects in rural areas.

The importance of combining health and sanitation educational and promotional programmes was also supported as these two aspects complement each other.