



Education for sustainable community sanitation

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MANZESE IS A sub-urban locality, situated about 15km. West of Dar es Salaam city, with a poor sanitation infrastructure. It is also one of the highly congested localities in Dar es Salaam, giving it a potentially conducive environment for the outbreak and spread of contagious diseases, particularly cholera. This situation has existed for years and has cost the lives of many young and old residents of the area.

Way back in the 1970s the Dar es Salaam City Council constructed some open drainage channels in this area. However, the rapid rural-urban migration of the people to this area resulted into mushrooming of unplanned and congested residential houses. Most of these houses were built very close to the drainage channels and, in various places, the channels were either back-filled with sand to provide more area for construction of houses, or were used as solid waste disposal sites. These practices, naturally, blocked the channels and led to flooding of liquid wastes, especially during rain seasons. The consequences were unbearable. In areas which were not covered by the drainage network, the situation is even worse. The improper disposal of both liquid and solid wastes, coupled with the uncontrolled overland flow of rainwater has always created an unsanitary environment which is hazardous to people's health.

Establishment of the COWES-MESCO sanitation project

COWES is a local NGO whose mission is to promote community-based initiatives in solving problems relating to water, environment and sanitation. MESCO is the CBO at Manzese locality. It was established with the aim of improving the environmental sanitation situation in Manzese. On the 20th of June, 1998, these two organisations met to chart out possible areas of cooperation which will facilitate a solution to the Manzese environmental sanitation problem. The initial activity was to go round the entire area of Manzese in order to assess the nature and magnitude of the problem. The old drainage network was traced and sketch-mapped. It was found out that most residents of Manzese were not covered by this network; and even those who were covered, the drainage system was basically inoperative due to improper use.

Another problem which was noted in the assessment exercise was that of pvc water supply pipes which were laid within the same drainage channels. The dangers of such practice are obvious. In cases where water supply pipes are fractured, the contamination of the piped water can hardly

be avoided and, in such cases, it has always been very difficult to detect the sources of contamination of the piped water coming from domestic points.

The congested situation of the residential houses was also seen to contribute to an unsanitary environment in Manzese. The houses block almost every possible passage for overland flow of water during rains, leading to an apparently waterlogged environment around the houses. This situation provides a potential breeding for water-borne insect vectors and easy spread of contagious diseases.

The commonly used method of pit latrines was also found to contribute to the problem of contamination of shallow groundwater sources which are used by Manzese residents in areas where the piped water system experience frequent failures or where the public domestic points are far from the people. In rain seasons, most of these pit latrines overflow due to the rising of the water table. The overflowing pit latrines, when mixed with improperly disposed garbage, produce an unbearable stinking and a nasty site to behold.

MESCO had always been adopting methods of mobilizing people to undertake general cleanliness around their houses; but since these activities are just temporary solutions to a more complex problem, which has existed for years, MESCO's vision is to establish a sustainable community-based mechanism which will offer a lasting solution and guarantee better health prospects for the people of Manzese. Hence, to move towards this vision, COWES and MESCO agreed to initiate a project for rehabilitating and constructing an improved sanitation infrastructure in Manzese on a community participatory approach.

Project objectives

After assessing the entire situation, COWES and MESCO agreed to jointly initiate a project whose objectives would be:

- To create community awareness on the need for a sustainable environmental sanitation system managed by the community members themselves.
- To impart a sense of domestic responsibility to households in the upkeep of environmental and personal hygiene.
- To develop a sustainable strategy for management and maintenance of environmental sanitation facilities through a community participatory approach.
- To control groundwater pollution in areas extracting domestic water sources through dug wells.

- To minimise the rate of spread of water-borne and water-related diseases in Manzese ward.

Community training and mobilization

Within the time duration in which MESCO came into existence, community training and mobilization has played a significant role towards creating community awareness on the need for and importance of a sanitary domestic environment. Before MESCO's establishment, there were health and sanitation by-laws which were, however, ineffective. The organisational composition of MESCO makes it easy to inject new ideas into the community members without much resistance from them. This committee is composed of various community leaders, Health Officers, Teachers, Community Development Officers etc. Through this committee, relevant community training is given to the people and positive results have been achieved, which are indicative of a community awareness on crucial sanitation issues prevailing in their vicinity. For example, MESCO has managed to effect the construction of more than ten concrete solid-waste disposal sites at various points in Manzese. These were constructed through people's voluntary participation. The people have also been tuned into a regular habit of conducting general cleanliness twice per week. When the disposal sites are overstuffed with rubbish, the city commission's garbage-trucks go round to empty them. For those residents who are located far from the disposal sites, they hire people with hand-drawn carts to ferry the garbage to the sites.

These behavioural changes indicators were the criteria on which the inclusion of the Community Education and Mobilization element in the project was based. The behavioural change has in fact paved the way to a positive community involvement (physically and financially) during the subsequent stages of project execution which will call for their actual participation.

The Community Training and Mobilization component will focus on imparting to the community members the

basics on how to sustain a good environmental sanitation. The expected outputs at the end of the project are:

- A sense of community awareness and responsibility to environmental sanitation issues, ranging from an individual level to the domestic level.
- Increased standards of health, domestic and personal hygiene among Manzese residents.
- A considerably minimised rate of water-borne and sanitation-related diseases in Manzese.
- A sustainable community-based environmental sanitation management system which is governed by effective by-laws.
- An end to potential groundwater pollution practices by Manzese residents.
- A relatively raised mortality age limit among Manzese residents.

References

- Manzese Environmental Development Programme. COWES-MESCO Project document for Rehabilitation/Construction of the Manzese Sanitation Infrastructure. Jan-Olof Drangert, Jennifer Bew, Uno Winblad (Eds.), Ecological Alternatives in Sanitation. Proceedings from SIDA Sanitation Workshop, Balingsholm, Sweden 6-9 Aug. 1997
- World Health Organisation, Fact Sheets on Environmental Sanitation. Cholera and Other Diarrhoeal Disease Control. Geneva, 1996

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