

Churches in Bulawayo

October 2011

Improving health: integrating food security and access to water in Zimbabwe

This briefing outlines an integrated water supply and nutritional garden project, run by Churches in Bulawayo that has been running since 2009 in collaboration with Bulawayo City Council. It involved rehabilitating 20 boreholes that had fallen into disrepair, and establishing a nutritional garden within close proximity to each borehole. This project aims to benefit the most vulnerable in the community.

BACKGROUND NEED FOR PROJECT

Water related problems are perennial in Matabeleland region. The region which is in the low lying western parts of Zimbabwe receives low annual and erratic rainfall averaging 450mm – 600mm. Bulawayo – Zimbabwe's second largest City is located about 430km west of Harare in the centre of Matabeleland region thus is not spared from these water woes. The main supply dams for the City were constructed 30 years ago to cater for a small population of about 200 000 people. Since then, the population has grown to more than a million people, constraining the water supply systems over the years. Further, the economic and political challenges faced by the country in the last 10 years or more compounded the problem for Bulawayo City Council who lacked the foreign currency to purchase water treatment chemicals which were no longer manufactured locally. Erratic and prolonged power-outages also damaged water pumping installations resulting in serious water shortages.

Furthermore, the council failed to retain trained personnel –who opted for greener pastures across the borders. As a result there was a critical water shortage in Bulawayo in 2007 / 2008 period.

The insufficient water supply compromised hygiene standards of residents leading to the outbreak of water borne diseases. A case in point is the outbreak of cholera in Zimbabwe which claimed about 4000 lives in 2008 / 2009.

The shortage of water resulted in people walking longer distances - up to five kilometres in search of clean water. Others resorted to drawing water from unprotected sources increasing the risk of contracting water related diseases. The situation affected mostly women and children who are involved in household chores. Those looking after people living with HIV/AIDS spent less time with the infected as more time was spent on sourcing for water. They were also put at risk of contracting diseases due to poor hygiene standards when caring for the sick. The elderly and the sick people were not able to walk long distances in search of clean water; therefore human dignity was compromised as people resorted to the bush and back yard gardens instead of the toilets.

As the water shortages deepened, there was an influx of sick people seeking medical attention from health centres. Most of the primary health care centres which cater for the most vulnerable were constrained by the economic challenges which contributed to the shortage of drugs and high staff turn-over.

As a control measure the council introduced water rationing and suspended the watering of gardens, construction projects, and income generating projects which were deemed not to be conserving water. Most families in high density areas relied on their backyard gardens for fresh vegetables for consumption and income generation. As a result of the water rationing, most households could no longer have a balanced diet, they could not afford to buy vegetables on the local market and they could not generate income for other domestic expenses-thus affecting their food security and nutrition. As a result the population faced a double problem of water shortage leading to water related diseases and fresh food supply leading to nutritional imbalance.

It was against this background that Churches in Bulawayo realized the need to improve water supply and dietary diversity for vulnerable communities and embarked on a borehole rehabilitation and nutritional gardening project.

The need for mitigating water shortage through borehole rehabilitation came to light through Matabeleland Monthly Water, Sanitation and Hygiene Cluster meetings (WASH) following the 2007 water crisis in Bulawayo. The Bulawayo City Health Department produced monthly disease outbreak reports which showed an increase in cases of watery and bloody diarrhoea from the month of September 2008. Interviews were carried out in areas that Churches in Bulawayo had previously supplied water tanks and the general request made by the communities, was on the rehabilitation of Bulawayo City Council boreholes and establishment of nutritional gardens for improved nutrition, hygiene and sanitation.

OVERVIEW OF PROJECT

In 2009, Churches in Bulawayo, working closely with Bulawayo City Council and the community, refurbished 20 boreholes and established 20 nutritional gardens across western suburbs in Bulawayo. The City Council provided land for these community gardens. Each garden was about 2,500 square metres and divided into household plots.

The beneficiaries for the nutritional gardens were selected by councillors, residents' associations and the community. The selection criteria on the nutritional gardens were based on the degree of vulnerability of the people. Particularly, this included people living with HIV & AIDS, orphans, child headed families, care givers and the elderly with at least a mature person who can work in the garden to sustain the family.

This project has benefited more than 5000 households with potable water (i.e. at least 250 people per borehole). A total of 983 households benefit from the nutritional gardens.



MAIN STAKEHOLDERS INVOLVED

- *The Community*

At the commencement of the project, Churches in Bulawayo and the Bulawayo City Council mobilised the communities in the project areas and worked with them to establish water point committees. (Community mobilisation was led through the existing residents associations and resident pastors who are members of Churches in Bulawayo). The community also selected at least three people per water point to be trained as pump minders. At the same, security issues were discussed and measures put in place to secure project equipment against vandalism. The beneficiaries in turn appointed from among themselves project committees and came –up with operational modalities.

- *Bulawayo City Council*

The Bulawayo City Council was involved in the selection of the boreholes that needed rehabilitation as well as the maintenance and training of trainers for pump maintenance. They also donated the land for the nutritional gardens and arranged for agricultural extension workers to provide support to the beneficiaries in each garden. The Bulawayo City Council also assisted in the recording and publishing of disease outbreaks through its Health Department. The City Council Health Department obtains data from the clinics and hospitals around town which are then used by WASH partners. The Council also availed idle land for establishment of nutritional gardens.

Water is available throughout the year and in the event of a pump break down trained pump technicians will rectify the problem immediately. The City Council Engineering Department will assist them with all the required equipment and replacement parts. Communities also have monthly subscriptions to ensure that costs for maintenance are paid up and for the up keep of the garden thus sustainable the project without any external funding.

The water quality was tested and found to be safe for both garden and human consumption. When resources are available the Bulawayo City Council tests the water within every two weeks however, currently this is not so because of shortage of resources.

- *NGOs*

Tearfund UK funded the project and received progress reports and beneficiary accountability reports and we coordinated with other members of the WASH cluster to ensure there was no duplication of this project.

COSTS INVOLVED IN THIS PROJECT

In order to initiate such a project there is a huge need for financial investment. There is a lot of work involved in flushing out dirt from boreholes as deep as 50m and to equip these holes with pumping machines. This also applies for the establishment of the garden fence and preparing the land for vegetable growing. While the project needs a huge amount of time, effort and capital to be invested, once the gardens and water points are supplied the benefits are so huge that one would not even realise the investments.

EFFICIENCIES GAINED BY INTEGRATION

As much as people need water they also need food and improved nutrition in order to overcome diseases. The integration of water supply, food security, nutrition and health brought about significant changes to peoples' lives in the City of Bulawayo. This has presented lasting solutions; safe clean water supply, nutrition and food security. The growing of vegetables and medicinal herbs means that there is a diversified nutrition and improved health while at the same time maintaining safe clean water supply throughout the year. The involvement of training in this project means that water points are well maintained, repaired and managed successfully.

The success of this project is governed by the fact that there is an efficient constant water supply from the boreholes throughout the year. This constant supply helps reduce the incidence of water related diseases, improves nutrition and better health. This was all made possible by training beneficiaries to be pump minders as well as a management committee to ensure that all operations are coordinated. Further, because of the constant supply of water there is also a constant supply of vegetables and medicinal herbs.

During periods of water rationing, surrounding communities fetch clean water from the boreholes. Water point committees ensure regular maintenance, efficient distribution of water and security of boreholes. Trained pump minders and pump technicians ensure that there is water all the time.

For sustainability each garden project established an executive committee which is regulated by a constitution drafted by members. The members were trained in project management and agricultural techniques that assisted them not only for the project but also to pass on the expertise for their home projects. Vulnerable children are also learning gardening skills at an early age.

Inclusion of herbs and medicinal plants enable community members to access natural remedies for common illnesses and to boost the natural immunity of people living with chronic illnesses.

The project ensure that there is reduced time and labour required to source water and vegetables as all these are available at one point and also within a walk-able distance from their homes. Health improvement, hygiene, sanitation, food access and availability are increased through the integration – thus this project indicates that integration has a potential to reduce poverty, disease outbreak and improve nutrition.

There are stories of how the project not only provide for food and nutrition but also provide a platform for the members to fellowship. During garden days beneficiaries share ideas, share recipes and find time to share experiences creating an environment where they could help each other. They also confess to the fact that because they no longer have too much idle time, they no longer experience “disease of boredom”. Their sense of worth has also been boosted. The fact that they are recognised and have beds allocated to them, a register is called and there are expectations from individuals, make them feel wanted and appreciated in the community. Beneficiaries with HIV/AIDS feel they are no longer stigmatised and have gained a new sense of dignity from working in the garden.



COSTS, BENEFITS AND SAVINGS GAINED

Although there was no actual measurement in nutritional improvement, beneficiaries indicated an improved diversity in diet because of the various types of vegetables consumed. More than 80% of the beneficiaries are now eating more than three types of vegetables in a week without an increase in expenditure. The same number of people indicated an improvement in income from the sale of vegetables.

The Bulawayo Health Department Reports have indicated a reduction of diarrhoeal diseases between 2009 and 2010. An estimated 10% reduction was indicated for the period of the project, although further monitoring is required to establish the exact impact of this project on health.

The community in general has also benefited in that vegetables are now easily available, fresh and at an affordable price. The fact that people who were otherwise neglected and overlooked are now recognised makes them proud. They are proud to make a contribution to their community against a background of the stigma that is normally attached to these vulnerable groups.

LESSONS LEARNT

When rainy season begins, beneficiaries do not operate the gardens as much because they have to prepare their fields for cereal crops like maize. Maize is an important staple food as it can be eaten either as green mealies or milled into powder (mealie-meal). This is also seen as a way of supplementing food security as households cannot rely on vegetables only.

It was learnt that water point management committees will operate efficiently if there are other benefits attached to the borehole. As a result, beneficiaries are encouraged to utilise the water for other uses such as community gardening and construction in liaison with the City Council.

In the event that an opportunity arises for Churches in Bulwayo to implement, scale up and / or replicate in another areas, more attention will be given to the water source to ensure an efficient water supply in order to make sure that the gardens will be sustained throughout the year. A thorough analysis of underground water, yield of the boreholes in relation to the depth will help to ensure constant supply of water.

Further there will be need to do market research for the garden produce and go step by step on training how best to utilise the medicinal herbs.

The citing of the gardens is also of importance as some sites are prone to water logging. As such the terrain should be considered and measures taken to ensure that runoff does not flood the gardens.

NEXT STEPS

There is need for advocating for regularising the land tenure of these gardens. The local authority will need to then factor these gardens into their annual plans. Currently the Bulawayo City Council is revising its strategic agenda with regards to urban agriculture. There is therefore a need to lobby for the recognition of the contribution these gardens are making to the local community economies.

There is also need to commission a marketing survey for urban agriculture to establish market intelligence, for example identifying the markets and their trends. There is also a need to scale-up the project in terms of garden size and expansion to other areas and surrounding areas have been requesting this programme.

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