

CLEAN WATER

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Gustave Kabamba graduated from Africa University with a master's degree in public health in 2008. His current employer, Tenke Fungurume Mining (TFM), is part of Freeport McMoRan Copper and Gold Inc., headquartered in Phoenix, Arizona. TFM started its community water supply project before Gustav Kabamba joined the company. He was initially brought in as a consultant to help design the company's comprehensive social investment plan. The clean water program is a [2013 Business Action on Health Award Winner](#) in the "Health and Beyond: Tackling Root Causes" category.



Background: In response to a cholera outbreak in 2008-2009, TFM began supplying clean water to communities using water trucks dispersed throughout the city. As it was expensive to continue using water trucks, water tanks (5000L) were placed in strategic locations and supplied by the water trucks. Then, a well was drilled and the various water points were supplied by gravity from 18 tanks placed uphill.

Contributions: I joined TFM at about that time (2010). At first, I was hired as a consultant from an NGO to help improve the Community Health Action Plan (CHAP). The CHAP includes: a comprehensive malaria program, HIV/AIDS, outreach, Health Zone revitalization and Water Sanitation and Hygiene (WASH). On the water component, I found that the water supply arrangement was not sustainable; while the risk of cholera and other water-borne diseases was constant. This was of particular concern in the urban area. Rural areas had wells equipped with manual pumps.

My contribution was more about re-designing the existing system to make it sustainable. My recommendations, which were implemented, included replacing plastic water tanks with a stand point, a management community and fee payment.



Old rural area manual pumps were replaced by new pumps (the new pumps had to be of a make with spare parts available on local market, example: India Mark pumps were replaced by Afridev pumps). Repairmen were trained and a local management committee was elected to oversee operations at each well. Committee members were trained on how to manage water fees. If there is a breakdown, the water committee approaches the repairman, collaborates on the purchase of any spare parts that may be needed for repairs. The repairman fixes the pump and is paid from funds generated through the water fees.

This is an achievement. To date, we have 86 self-sustaining wells. Our role is to monitor well-functioning and management.

In villages where the funds generated are well managed, the money is invested in a community development project. A successful story is of one village where the money was used to build two school classrooms. Before this, the village didn't have any classrooms for school children. As more people move into the area, the water fees can support the drilling of an additional well where needed.

In urban area, we have created a cooperative for managing water. Each water point is fenced and access is controlled by the committee members in charge. This is to ensure project sustainability as the mining company will not be there forever.

NB: We have not had another cholera outbreak in our surrounding communities. Water is tested following WHO standards; closed wells were decided upon following a monitoring/test report.

Our ongoing contributions are these: We contract the local drilling company, suggest the design for water points in urban areas, train the management committee, and have a community mobiliser working with local authorities and the health zone personnel. We also monitor the routine functioning and management of water points.



A second component of TFM's community investment plan is the water hygiene and sanitation the program which includes:

- Community sensitization on health issues
- Implementing a "Clean Village program": for a village to be called a clean village, residents should have access to clean water (well or water point), each household should have a latrine with a hand washing set-up, wet pit disposal, sensitization on hygiene, regular yard cleaning.
- I have initiated a sanitation and hygiene empowerment program: Without putting any money, the community is sensitized and mobilized to have a latrine with hand washing facility, wet pit, and decent house construction.

Specific outcomes: We have:

- 11 water points in Fungurume with 168 taps for 120 000 people in Fungurume;
- 6 water points in Tenke with 48 taps for 12 500 people in Tenke;
- As noted earlier, 86 self-sustaining wells in 52 villages. The total population served is estimated at 45, 000 people; and this is in the rural areas.

NB: With the high rate of unemployment, more people are attracted by the mining operation; creating a demographic explosion in this part of the country. This is always increasing the need for water point and wells.



Impact of these clean water contributions on incidents of disease outbreaks:

The main threats are cholera, dysentery, gastro-enteritis, typhoid fever and diarrhea, among others. In our health zone disease surveillance system, we have noted that there is a tremendous reduction of these water-borne diseases. Since the cholera outbreak in 2008-09, we have not had another outbreak. A study carried at the referral hospital and health zone showed a decrease in hospital consultation visits by residents and reduced household spending for medical care.

Edited report from Gustave Kabamba.