

Innovative Approaches to Poverty Alleviation: Provision of Water to Rural Women in Kenya

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Julia Kunguru uses the example of the Kenya Finland Rural Water Development Project formed by the 1975 Technical Cooperation between the Governments of Kenya and Finland, to show how women's training is crucial in the maintenance of a community's water supplies and health education.

The Project covers 3,654 km² with an estimated population of one million people. The Project areas covers parts of Kakamega, Busia and Bungoma Districts in Western province. The area borders Lake Victoria and Uganda in the West, Mt. Elgon in the North and Nandi Escarpment in the East. The Project area is totally rural, with 95 percent of the population earning their living from Agriculture. The land is privately owned, with plots being quite small.

The Project provides individual water points to the communities. The main objectives of this project are:

- to provide clean water closer to communities within the Project;
- through Health Education, to ensure maintenance system by use of low cost technology hand pumps;
- to create Self Reliance among the beneficiaries through Community Training.

The concept of community participation

The communities are involved at all levels of the Project design and their needs and priorities are discussed jointly during various village level meetings held within the community. The communities do participate in the choice of the site where their water point will be situated. The criteria for the well allocation is based on 200 people per well.

The three point sources are Springs, Hand-dug wells, Boreholes. For each site, the communities elect 14 members who form a water committee. The water committee is made of

7 men and 7 women. The role of the committee is very important as far as the construction, management and maintenance of the water points. The committee participating in the siting of the water points to how the users views are represented. When it comes to construction, the committee organizes the users to provide labour and materials enough for construction of the given water point. At all times, the communities work with local hired Contractors who assist in the completion of the wells. Once the wells are completed, they are handed over to the community for future maintenance and management.

Village level maintenance system

Each well constructed is equipped with a hand pump which is cared for by the well committee members who are trained on the use and care of the pump. It is vital for the water users to know about the hand pump and its operation and be able to do the repairs themselves. A good maintenance system should train the water users in the maintenance of their own water supplies. The advantage here is that the system saves on the costs of repairs and also on the time spent on finding repairmen who may not be available when required. The project has moved from slow vehicle maintenance system to the Pump Care takers, known as Pump Attendants.

As we continue to test out different ways of involving women in development projects, it is important to note that the training of women on new technological innovations will give women a chance to share their skills with men, and this will lead to better development.

Based on interviews with the beneficiaries of the Kenya water systems, illustrates the importance attached to training of women in maintenance of water supplies and the need for health education.

"When I had visitors, I would ask them to wait while I went to fetch water for tea. Sometimes, they would leave before I got

back because it would take me so long", recalls Agnetha Wesonga. Last year the Kenya-Finland Rural Water Development Project (KFRWDP) installed a handpump in her village in Kakamega District of Kenya. As part of a remarkable community development effort, Wesonga now maintains and repairs her village pump as a volunteer pump attendant.

When KFRWDP first installed handpumps in its project area in Kenya's Western Province, too often the communities did not treat the well sites responsibly; with the result that refuse and standing water created health hazards. "We didn't know the water was ours", explains Alice Makale, another pump attendant, "We misused the water. We didn't attend the (well) committee meetings because we thought they were a waste of time. We didn't pay for maintenance because we thought the water was brought free from the government". If breakdowns occurred, they were reported with delay to KFRWDP, who then sent a repairman from a mobile team. This was a slow and expensive system that the project needed to change.

"The community participation effort is not new", explains Soderlund, the community development officer. "For several years we have been training the villagers and bringing them into the process. But they really understand the rights and responsibilities of ownership now they are the ones who ensure the working of the pump".

The system of village caretaking has been made possible by the development of NIRA AF85 handpump. It is designed for Village Level Operation and Maintenance (VLOM), and is the best rated community shallow well handpump for which every part can be easily dismantled, maintained, repaired and reinstalled by villagers. The rising main and the pump rod are made of polyethylene pipe sections that screw into each other and are light and easy to raise. The entire operation can be done with three simple, inexpensive tools. Kefinco, the implementing consultant in the KFRWDP project, has taken advantage of the NIRA AF85 to give the responsibility for water to its major consumers-women.

Seppo Halminen, the Kefinco handpump development officer, says the project has chosen women to be the pump attendants because they are closest to water and are resident in the village, unlike men who might be migrant workers in the city. "Water is mainly a problem of women", adds Chrysanthus Wanjala, an assistant community development officer. "They do not only fetch it but also use it for cooking and washing as well as drinking. We wanted to make sure they were involved in all decisions affecting their water supply".

Each well has two women pump attendants who are chosen by their local well committee. In addition to dealing with any breakdowns, the women carry out routine checks of all parts of the pump every three months. Dismantling and reinstalling the pump takes less than half an hour, but lifting the long pipes of the pump rod and rising the main requires assistance from two or three other villagers.

The choice of women as pump attendants was surprising to many people in this rural area of Kenya where tasks are highly segregated, according to Mohammed Asman, a Kerinco

assistant handpump development officer. "It didn't occur to a man that (a woman) can know what he knows or learn anything". Many of the women were also surprised, women in Busia District were amazed that they could learn to do repairs. "The spanner was a shock", recalls one young woman, "I never knew in my whole life I would hold a spanner".

This initial skepticism was a serious problem for the first project training session. It took several weeks for the KFPWDP teams to find two women at each pump who were willing to be trained. "Aren't men the ones to do repairs?" was the reaction of one pump attendant when she first heard about the training. Many men were unwilling to see their wives disrupt their traditional household tasks in order to be trained, leaving men with the duty of child care. Bordas Mbayaki, the elderly chairman of a well committee in Kakamega District, refused to allow his wife to be trained. "Now I regret it", he says, "I see what the training has done for the women and what it has done for us as a community. We have learned a lot. I work with these women now and I will die working for them". As the training has become more widespread and its benefits more well known, both men and women have become enthusiastic supporters of the programme of women pump attendants.

In addition to maintaining the pumps, the women also share information with the community. "We (the government) used to go to the well sites and yell about hygiene and sanitation. Nobody paid any attention" recalls Ibrahim Okumu Wazir, an assistant chief from Mumias Division, "But if women do the talking and educating, people listen and learn". The pump attendants educate the communities about cleanliness that extends beyond the well site to general water use. "Now we have plenty of water for washing and know the value and importance of cleanliness", explains one woman consumer from Busia District.

As a result of the pump installation and accompanying extensive education efforts, many villagers have been awakened to the part they can play in development. "Bunyala women have understood how Kenya is developing", Makale states, "Even the men have learned about development. We don't want to be left behind. We want to do activities that other women in the world are doing". The communities have learned that they own and are responsible for the pump and its maintenance. Now there is a pride of ownership. Not only are the well sites clean, but in many places runoff water feeds communal gardens. Duty rosters of all the village women ensure the upkeep of the well sites. The value of the well to the community is reflected in the high respect they accord to the pump attendants.

The pump attendant training brings the women many rewards, and a place in the training programme is highly coveted. The acquisition of technical expertise is one especially pleasing feature for the women, some of whom have never been to school. Contact with other communities and the sharing of news is another aspect of the training that women enjoy. For many of them, the training is the first time they interact with people from outside their communities, and they find study

tours particularly exciting. "When I am late there are no quarrels; my husband looks forward to more news", one woman says. In the meetings women have a forum to discuss issues and made decisions. "When we started the training they were very shy", recalls the author and the Kefinco community development and training officer, "Some would be physically shaking when they had to stand up to explain their work. Now many of them have become accomplished public speakers".

The pump attendants are so enthusiastic that many have formed women's groups to continue development activities. A group in Ekeru have started a bicycle repair shop, expanding the use of the technical skills they learned in pump attendant training. Women in Busia plan to buy a block-making machine with the proceeds from a well garden and sell construction blocks to schools. They intend to hire men to dig the sand to make the blocks, a revolutionary change for women to think of hiring men. Women are not the only ones to respect the accomplishments of the groups: men in Kakamega are so admiring that they are forming a men's group to focus their own development activities.

Unlike most women's groups in Kenya, the pump attendant groups contain women from a wide age group. "We learn from the older women, and they learn from us," Makale explains, "every time we meet we are all teachers and students". "We try to encourage all the pump attendants to form women's groups", says Luka Imbwaga, a training assistant, "that way they can continue their development activities after the project is no longer around to help them".

The women pump attendants in several areas have now taken on the training of other women. One older woman from Bunyala, Busia, explains that she is illiterate, does not speak English, barely speaks Swahili and has never formally learned anything in her life. "Now I am teacher", she says, "it is a wonderful thing". The system of women training each other is self-healing and can continue in the absence of the project. Both the women KFRWDP are delighted with this development, and the project promises to provide much assistance to the women teachers.

When the training, either through the project or other women, is complete, the new pump attendants are presented with certificates and a set of tools per well. "Once we have the tools, we really understand that we are the people responsible for repair if anything goes wrong", explains one woman at their graduation ceremony in Ukwala, "The work is volunteer, but the water is the payment. We do the maintenance so all the people, including ourselves, will have access to good, clean water".

The availability of clean, safe, nearby water has had an important impact on other aspects of community life. Since the installation of the pumps in Busia district on Lake Victoria, there has not been a single case of cholera in the district hospi-

tal, although there was a cholera epidemic as recently as 1985. People, especially women and children, are freed of the time burden of fetching water. "We used to spend the whole evening fetching water", a girl of twelve remembers, "now we have plenty of time for doing homework". "Thank you for saving us!" a boy of eight jokes to the pump attendants from his village, "Keep us the good work so we can grow tall and strong and forget about getting water from River Nzoia!".

Since the first NIRA AF85 pump was installed in early 1987 there have been no breakdowns on any pumps maintained by women pump attendants, and Halminen estimates that the recurrent cost of the pump will be significantly less than that of pumps requiring skilled maintenance. The NIRA AF85 has very few wearing parts, which the pump attendants check regularly. Thus most repairs are preventative, and the pump is rarely out of use. The cost of maintenance by pump attendants is about 5 US cents per consumer per year, assuming 200 consumers per well. In this rural subsistence environment, that is almost 1 percent of the per capita annual money income. By comparison, the cost of repair by mobile teams and conventional centralized maintenance is 35-40 US cents, and the cost of repair by local area repairmen is 20-30 US cents per consumer per year.

The pump is currently manufactured by the Finnish company Vammalan Konepaja Oy, and spare parts for operation in Kenya must be bought from the project. However, local manufacture and distribution is part of the KFRWDP design, and Vammalan is registering to produce the NIRA AF85 in Tanzania. Of more than 1,100 existing pumps in the KFRWDP project area, about 200 so far are NIRA AF85. The final number of pumps is likely to be about 4,000. Being a direct action pump, the NIRA AF85 is suitable for shallow wells, to a water depth of about 15 metres; about half of all handpumps in the world fall into that depth range. Halminen says, "All the new shallow well pumps will be and all existing pumps should be gradually changed to NIRA AF85 to enable the project to implement fully this magnificent training of women".

For the deep wells in the KFRWP project area (30-40 percent of the wells), all new installations and replacements will be Afridev pumps. Developed in Kenya, the Afridev pump is also designed for VLOM, with most parts easily dismantled. The project is waiting for the first 10 to come out of production locally, so that they can begin similar training of women to maintain deep well pumps.

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