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## **Taking people to water instead of taking water to people: changes in Ghana's rural water sector**

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**ACCESS TO SANITATION AND SAFE WATER:  
GLOBAL PARTNERSHIPS AND LOCAL ACTIONS**

**Taking people to water instead of taking water to people:  
Changes in Ghana's rural water sector**

*Laryea Nii Odai & Dotse Francis Mawuena, Ghana*

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*The paper highlights key issues emerging from a "conversion programme", the Accompanying Measures Eastern Region (AMER) Project, during which over 150 hand-pumps previously centrally-managed and maintained by government (the 3000 Wells Project), were transferred to rural communities for ownership and management (COM). Implementation was carried out in the Eastern Region of Ghana between 1996 and 2001. To ease the burden on communities to make the transition "transfer-friendly", communities could pay 50% of arrears owed over six months for the rest to be written off, local residents were trained for maintenance of facilities and there was free rehabilitation of the hand-pumps. Even though some challenges were encountered, there were interesting findings such as the long time it takes for COM to take root in rural communities towards sustainability, the need to make alternative arrangements for maintenance of facilities and the complex relationships between socio-cultural configurations and payment of arrears.*

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**Introduction and background**

Boreholes had been drilled in the southern parts of Ghana with little public participation in the 1970s (WASH, 1984). Beneficiary communities were not expected to pay for the facilities until a couple of years later when a tariff system was introduced based on population and number of houses. Even though the payment system was, among other things, meant to make communities take better care of the facilities, this was not to be and over 100 communities had to rely on one maintenance crew per region for the maintenance of the hand-pumps. In the end, many communities became highly indebted to the then Ghana Water and Sewerage Corporation (GWSC) and many facilities got broken down, were either abandoned or got disconnected.

In line with government's decentralization programme and to operate within a new national sector strategy and policy on rural water put in place in 1984, the National Community Water and Sanitation Programme (NCWSP) was inaugurated. Under this new institutional arrangement, the project was meant to transfer ownership and management of the systems from centrally-managed systems to rural communities. The major challenge was therefore to get communities to accept to return to the abandoned facilities, own and manage them. The paper describes the transfer process, key outcomes, challenges and conclusions in this new institutional arrangement in the Eastern Region of Ghana.

**Implementation strategy**

The AMER Project was to pilot the decentralized maintenance approach in one region for its lessons to be adopted elsewhere later (Sara, 1996). Implementation was zoned into three phases. This zoning was based on geographical proximity of districts, historical perspectives and experiential dimensions. The first zone was made up of four districts in the eastern part of Eastern Region and two districts where the UNDP had piloted a community ownership and management system over a five-year period in different communities. The second zone was made up of three districts in the northern part of the region while the third zone, located in the south, was made up of three districts-two from the region and one from outside the region but close to the two.

## **Approaches and outcomes**

### **Long lead time**

One very commendable component of the project was the regional and district launch. Representatives of all districts and communities were given an idea of the project objectives and its strategies at a regional launch at least three months before project inception. At the district level, all community representatives were also told of their level of indebtedness of communities and given the six months to pay up. In effect communities had no less than 9 months to mobilize resources. Those who had intentions of owning the facilities took advantage and succeeded in mobilizing funds to pay off their debts faster.

### **Special payment package**

The dispensation given to communities was simple. Communities were given six months to either pay off half of the arrears owed to GWSC and have the remainder written off or they could pay the entire amount of money owed GWSC within a two-year period. This afforded communities adequate time to mobilize funds for payment of their debts. This made it possible for communities, who are primarily agrarian that had not harvested their major crops (mostly cocoa, oil palm, oranges, plantain and rice) to do so in order to mobilize funds to pay off their debts.

### **Improved local capacity**

All communities that benefited from the 3000 Wells Programme were assisted to form local organizations to own and manage the systems. These were referred to as Water and Sanitation (WATSAN) committees. Capacity-building was provided by the project through district-based local non-governmental organizations called Partner Organisations. This was in line with national policy based on the realization that physical installations alone were not adequate and that local involvement, particularly in management was vital to proper usage and sustainability (UNICEF, 1990). Major areas included in the training were organizational and financial management issues and health & hygiene education. In spite of not having a sanitation component, emphasis was placed on the importance of hygiene education. Some of the tools that were used to promote the health and hygiene education component include posters, F-diagram, well-illustrated manuals, three pile sorting cards and story-with-a-gap.

### **Additional incomes**

The project involved provision of additional incomes for 50 people who had skills in repair of simple machines such as bicycles, chain-saw machines, mowers and corn mills. These Area Mechanics were trained to carry out repair of both below-ground and above-ground parts of the hand-pumps for which communities had to pay. Others whose incomes improved were the local Pump Caretakers or Supervisors in about 45% of the communities where, after the transfer of the water facilities, communities decided to use the “pay-as-you-fetch” system to generate funds for operation and maintenance (O & M). These were often paid 30% commission of the total sales made. Others who benefited indirectly from the project include those who were engaged in the sale of “bagged” ice water popularly known as “pure water”.

### **Improved social status**

An evaluation carried out after the project indicated, among other things, that the social status associated with improved water also resulted in improved self-confidence of communities. Freshly acquired knowledge by local residents through capacity-building boosted their morale. Teachers were more willing to accept postings to schools in communities where water was available. Pupils and students attending school in beneficiary communities were more punctual than when they had problems of inadequate water.

### **Health improvements**

Indications from the communities revealed a reduction in water-bound diseases e.g. skin rashes, diarrhea, bilharzias, intestinal worms, malaria and typhoid fever. Even though this assertion could not be cross-checked from other sources to authenticate the information, it was nevertheless gratifying that communities could make a linkage between improvement in water facilities coupled with improved hygiene and sanitation and their improved health.

### **Rehabilitation & improved drainage**

All boreholes underwent major rehabilitation including redevelopment, replacement of old worn-out parts and repair of pumps at little or no cost to the communities. These were repairs that would have placed

huge financial burdens on the rural communities and was therefore a big relief to many. Apron drains were constructed on all wells to improve drainage and prevent stagnant water from becoming breeding grounds for mosquitoes. Another advantage of the apron drains was that it improved private sector involvement in the water sector which is one of the principles and/or tenets of the national community water and sanitation policy. It also underscored the strong tri-lateral relationship among water and sanitation towards improved health.

### **Decentralised maintenance**

More than 250 Pump Caretakers (Supervisors) were trained and equipped with tools for minor repairs at the community level while 50 Area Mechanics were trained and supplied with tools for major repairs. Apart from the latter serving as added impetus for the private sector in the provision of goods and services as a key principle in the sector, this meant reduction time for repair of the facilities. Before the conversion programme about 47% of the systems had broken down and had been down for over three months. During the project duration, this was reduced to almost zero and about one year later, only about 12% were broken down for over three months without repair. This was an indication that COM (mentioned in the abstract) was beginning to take root albeit slowly.

## **Challenges**

### **Water quality issues**

It was discovered that one major problem inhibiting people from patronizing the wells was not only because they had not been initially involved but also because of problems relating to water quality. In about 36% of communities, there were problems with high levels of minerals such as iron and manganese. Other complaints were high salinity, hardness, turbidity etc.

### **Apprehension**

In districts where the COM message was trumpeted for the first time, residents found it difficult to believe that they could be made to own the facilities simply by paying off half of their arrears. In over 80% of communities in those districts, questions relating to the authenticity of this new message kept ringing through-out the project duration, with the belief that the facilities were still government-owned in spite of having gone through the transfer process. The communities made reference to what was told them during the drilling of the wells many years ago and the change in policy regarding payment that followed much later. This delayed the payment process.

### **Importance of health/hygiene promotion**

Population growth had outstripped number of boreholes in almost all the communities and many residents were not enthused about long waiting times at pump sites. In a survey carried out at the terminal stage of project implementation, it was discovered that more than 60% of community members were prepared to resort to their traditional water sources if they had to wait for over 30 minutes at the well site before fetching water. This was in spite of a heavy component of health and hygiene education in the project. This re-enforces the importance of sustained health and hygiene promotion prior to, during and after project implementation in order to maximize the health benefits of the facilities.

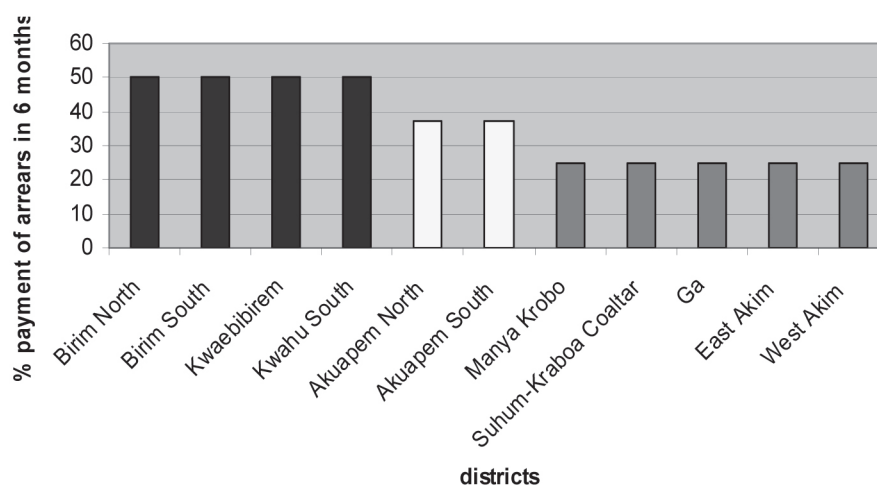
### **Back-lash effect**

The training re-enforced the need for communities to undertake regular preventive maintenance and not to wait for facilities to break down before repairing them. By the end of the project, it was realized that the culture of preventive maintenance had not caught on with communities. The end-result was that communities found it extremely difficult calling upon the services of Area Mechanics when the pumps had not broken down for routine maintenance, especially when they consider that they had to pay for the services. This indirectly resulted in under-utilisation of the services of the trained Area Mechanics. There was a high attrition rate of the trained Area Mechanics as they left for more lucrative jobs even though this was added revenue to them. Ultimately, communities had to travel longer distances in search of Area Mechanics for major repairs later since the old centralised maintenance system had been scrapped.

## Findings

Owing to the fact that the AMER Project was not a project providing new water facilities, it appeared unattractive to the rural communities. Interest was not as high as compared to one that provided new facilities.

The conversion project, in the end was not found to be in consonance with government's policy on the demand-responsive approach as there was no alternative maintenance system in place. Communities could not decide on their own that they preferred the centralized system and therefore were not prepared to go through the conversion process. Indirectly therefore, it was a dictatorial decision which communities had to accept willy-nilly since the centralized maintenance system, which was preferred by some communities was no longer in operation.



**Figure 1 Payment of tariff arrears by districts**

Source: AMER Project, 1996 - 2001

There appeared to have been an interesting linkage between level of socio-economic development and COM practice on the one hand and migration and dependency tendencies on the other hand towards the payment of the arrears over the 6 months (as depicted in Figure 1 above). The first group, made up of four districts that managed to pay their 50% arrears within 6 months had peculiar social characteristics such as having already been under a quasi-COM system, economically well-resourced and/or had a vibrant work-force. The third group made up of six districts was not able to pay the arrears and had to pay up at the end of the two years. Districts in this group exhibit characteristics such as high level of migrant populations, heterogeneity of settlement patterns, high dependency on central government for their development and demonstration of general apathy towards their own development. The second group made up of two districts were in-between the first and third groups and managed to pay their arrears before the end of the two years. It is therefore imperative for policy makers to take such sociological configurations into consideration in the design and implementation of water and sanitation projects.

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