

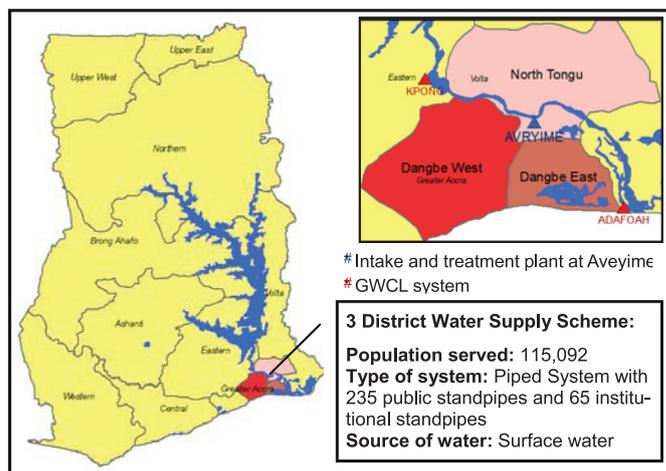
This factsheet describes the Management Model applied in the Three District System in the Dangme East, Dangme West and North Tongu Districts in Ghana. This is a unique case, in which water is provided through a community managed system to a total of 129 rural and small town communities. This fact sheet describes the Model in theory and in practice. This factsheet also throws lights on the challenges and the application of this Model.

### Introduction

The Three Districts Water Supply Scheme (3-DWSS) is one of the peculiar small towns water supply schemes constructed in Ghana. *It is presently the biggest Community-Managed Small Town Water Supply scheme in Ghana.* It serves over 129 communities and 18 institutions in three Districts, which are: the Dangme East and Dangme West District Assemblies in the Greater Accra Region and the North Tongu District Assembly in the Volta Region. The total number of people currently served with water from this scheme is 115,092.

Because of low ground water levels, salinity and the presence of iron and manganese, ground water potential for water supply is low in the three Districts. Before the implementation of the Three Districts System, people in the area depended mostly on a small number of boreholes, on irregular water supply from Ghana Water Company Limited (GWCL) from the Kpong and the Keseve/Ada Foah system, and on unsafe sources such as streams, ponds and dugouts. To improve the water supply in Dangme East and West, a large piped system was conceived, with an intake at Aveyime, in North Tongu District. Because of the location of the intake, North Tongu had to be included in the beneficiary Districts as well. Hence, the name “Three District Water Supply System”.

Because of its complex nature, the 3-DWSS required the



decision on a management model to manage this system. Based on a study commissioned by CWSA/GAR in 2003, to identify an appropriate management model for the 3DWSS, and after careful consideration of the unique characteristics of the 3DWSS, the Community-Public-Private Partnership (CPPP) was proposed as the Management Model.

### The model

Under this model, the WSDB, on behalf of the communities, contracted the operation and maintenance of the scheme to a Private System Operator (PSO). The DAs remain the owners of the facilities and are therefore required to demand quarterly technical and financial reports from the PSO. They are also responsible for providing technical support (on-the-job coaching) to the WSDB and WATSANs in the management and operations of the scheme. The three Districts appointed the Dangme East District Assembly as a Lead District to co-ordinate the processes for the engagement of the PSO. The Lead District was responsible for issuing of award letter and co-ordinating negotiation meetings with the selected PSO.

The PSO is considered the “sole and exclusive, Operator and Maintainer of the water supply system from, and including the intake at the treatment plant to the bulk meter point in each beneficiary community”. The PSO has the additional responsibility to collect water sales from the public standpipes, institutional and private house connections, on behalf of the DAs and the WSDB.

The WSDB has oversight responsibility for the overall management of the system, including the monitoring of

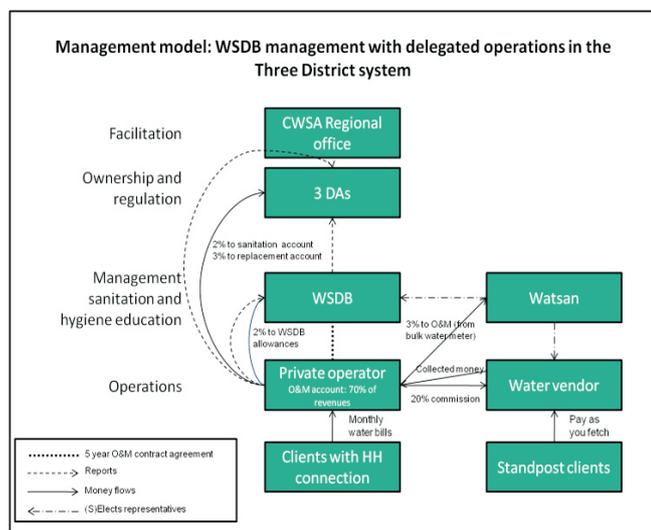


Figure 1: Roles and responsibilities of stakeholders

the activities of the PSO and the WATSANs. The WSDB is required to communicate all decisions taken at the WSDB level to WATSANs, who in turn, disseminate such information to the community members. Vice versa, concerns of the communities are to be communicated to the WSDB by WATSANs representatives on the WSDB.

The WATSANs are charged with the responsibility of selecting and supervising water vendors from within the communities. Furthermore, they are to ensure the payment of water bills to the PSO and maintain the pipelines and standpipes within the community.

The figure on page 1 of this fact sheet, illustrates how money collected from the public standpipes is distributed. Apart from the Replacement and Sanitation Accounts which are co-managed by the WSDB and the DAs, all other accounts are managed solely by the corresponding institutions.

### The reality

There are eight WATSANs in a total of seven zones, based on the distribution of the high level or overhead tanks. The WSDB was established, consisting of 20 members: two WATSAN representatives from each of the zones, a representative from Central University (the only major institution benefiting from the scheme) and a Planning Officer from each of the 3 Districts. The Planning Officers do not have voting rights. From the WSDB, 5 members have been elected into executive positions.

Due to the inability of most of the beneficiary communities to raise the 5% contribution to the capital cost before the implementation of the system, a decision was taken by the WSDB and the DAs to increase the price of water from USD 0.76 per cubic metre to USD 1.90 per cubic metre (USD 0.014 to USD 0.035 per 18 litre container). The difference was thus used to defray the cost of the capital investment cost contribution.

Because of the huge losses in revenue collection, five months into the implementation of this procedure, the DAs and the WSDB decided that water tariffs collected by the vendors should be paid directly to the PSO instead of to the WATSAN. The payment of the 'vendors' commission also became the responsibility of the PSO instead of the WATSANs. Though the current arrangement reduced the default rate of communities in the payment of water bills (according to the PSO the revenue collection has increased from 30% to 99%), it has resulted in the refusal of WATSANs to co-operate with the PSO. However, vendors have become more accountable to the PSO instead of the WATSANs. This has weakened the authority of the WATSANs.

The yearly external technical and financial auditing of the Water System, at the instances of the WSDB and the DAs to assess the performance of the system and to serve as the basis for tariff reviews, have never been conducted. Rather, the PSO, on its own initiative, audited its accounts for year 2008.

### Challenges

Despite the increase in revenue, the scheme is faced with challenges. There are frequent pipe bursts on the main transmission lines and reduced water consumption during the rainy season. These cause increased cost of operations and reduce income.

Monthly allocation for WSDB operations was considered to be inadequate, as it is said to barely pay for the transportation and sitting allowances of Board members.

Some individuals are taking advantage of the change in governments to question the legal status of the PSO and the WSDB. Some Assembly members have taken over the accounts of the WATSANs for purposes other than operation and maintenance of the pipelines and standpipes within the communities.

Information flow in the current Management Model is lacking. Distortions and misinformation (deliberate or not) have been the sources of conflicts among the WATSANs and the PSO especially. Beyond the election of Zonal representatives to the WSDB, there has been very limited communication between the WSDB and the communities.

The size and complexity in the management of a scheme such as the 3-DWSS requires a WSDB with members who have financial and technical acumen, which is currently absent.

### Applicability of the Model

The model presented here can be applied to the management of complex Systems, covering a multitude of rural and small town communities. This is especially relevant to areas with limited (ground water) resources. However, there are still a number of challenges that need to be addressed if this model is to be scaled up successfully. These include the lack of capacity of the Water and Sanitation Development Board, the DAs not fully taking up their roles and responsibilities and the position of the WATSANs. These challenges are not necessarily unique to this model, but addressing them is more urgent because of the complex nature of the System and the Management Model.

**Key Reference:** The factsheet is based on a case study, written by Joyce Maku Appiah, under the TPP project. The full report can be found on <http://www.ghana.watsan.net/page/777>.

This Fact Sheet has been produced under the Tripartite Partnership (TPP) Project, in collaboration with the RCN Ghana Secretariat. The Resource Centre Network (RCN) Ghana is an institutional partnership of organizations, which have committed themselves to improve WASH sector learning, through Knowledge Development, Knowledge Management and Information Sharing. For more information, please visit [www.ghana.watsan.net](http://www.ghana.watsan.net). The TPP Project seeks to tackle the core problems of weak sector capacity for planning and delivery of WASH services in poor urban areas, through the demonstration of new approaches to pro-poor WASH service deliveries in three pilot areas, involving Tripartite Partnerships of NGO, Public and Private sectors. For more information, please visit <http://www.ghana.watsan.net/page/687>