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**39<sup>th</sup> WEDC International Conference, Kumasi, Ghana, 2016****ENSURING AVAILABILITY AND SUSTAINABLE MANAGEMENT  
OF WATER AND SANITATION FOR ALL****Public water utility versus private, the case of  
Burao and Borama, Somaliland: a comparison of PPP  
and semi-state water utility management models***F. Hashi, D. Johnston & S. Kemoh***REFEREED PAPER 2327**

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*Somaliland is a water scarce, drought prone country. Water is a precious resource and an important public good. The public private partnership (PPP) model has demonstrated that people will benefit from the private management of water, if the public's interest are met. PPP is relatively new concept to Somaliland in the Water Sector and has shown potential to be scaled up. This paper will compare and contrast the public sector agency and PPP models in two towns in Somaliland. Often, fragile countries like Somaliland lack the capacity and will for sustainability. The Ministry of Water Resources and UNICEF, under a four year EU funded project "Improving Urban Water Service Delivery in Somaliland", have worked together with the respective municipal authorities to develop both models. The key focus of this project included management and operational issues, regulatory framework and performance monitoring of water service providers, capacity development and Pro-Poor regulatory measures. It aims to ensure that well-planned investment in more efficient water systems in selected towns is underpinned by a common, Somaliland-wide approach to service delivery with better public-private arrangements, a more capable public oversight, and a stronger focus on service delivery to the most vulnerable. Recent research, commissioned under the project, demonstrates that both models are viable. In the case of the public utility model in Burao, it almost collapsed in 2010 due poor management if it were not for the timely intervention of the Ministry of Water Resources. The PPP model introduced in Boroma town since 2003 has worked relatively well but the need to review the performance monitoring and pro-poor regulatory measures were recognized in 2013. Both models have one new aspect in common, an empowered water user associations which advocate for the rights of the consumers – a significant game changer.*

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**Introduction**

Water is scarce resource in Somaliland affecting especially the urban & peri-urban areas, with population growth rate of 4.1% (urban – 2014). The rainy seasons are *Gu* (April-June) and *Deyr* (September-October). Somaliland could be characterised as arid or semi-arid and is a drought prone country, the average precipitation is 300mm<sup>1</sup>, but the evapotranspiration is over 2,000mm. Recently climate variations and El Nino effects have resulted in below average rainfall and the country is now experiencing a drought.

In June 2013 the president of Somaliland, Honourable Ahmed M. Mahmoud (Siilaanyo), acknowledged the need to have a dedicated state entity responsible for water resources and the Ministry of Water Resources was separated from the former Ministry of Mining, Energy and Water Resources (M,E&WR). In terms of regulatory framework, the current government enacted the Somaliland National Water Act in March of 2011.

Since its inception, the Ministry of Water Resources (MoWR) roles and responsibilities has grown significantly. MoWR has increased the capacity of the water sector, become more focused, better structured and has built the capacity of the employees at the headquarters, regional & district levels. The mandate of the relatively infant ministry is setting water policy, planning, budgeting, regulatory framework,

enforcement and providing oversight for PPP arrangements and public sector service delivery. (Geopolicity April, 2012 P. 109).

The MoWR, through the decentralization policy has strengthened the regional and district offices throughout the country in view of the Joint Programme on Local Governance & Decentralization Service Delivery (JPLG). The Somaliland National Water Policy clearly acknowledges the need for planning, implementation and management at local level, taking into account the local context, demand and capacities. Related decisions can be taken at local level, with information, guidelines and authorization provided by central government, the Water Policy is a blue print for decentralization. (Ibid, P. 131).

UNICEF, as the water sector lead in Somaliland, advocates for the well-being of children and vulnerable groups through increasing access to sustainable water supply and removing the barriers to improved sanitation and hygiene practices that impact health in collaboration with the government of Somaliland and sector partners. The 2015 knowledge, Attitude and Practice (KAP), study commissioned by UNICEF, indicates that Somalia did not meet the Millennium Development Goals (MDGs) for water or sanitation. The biggest donor in the water sector in Somaliland is the European Union (EU), who have invested over US\$28 million in urban water projects over the past 5 years through UNICEF and UN-Habitat. Two towns within this investment plan have evolved different operation and management models and this paper will compare these models to highlight their advantages and challenges.

The two models are public private partnership (PPP) in the city of Borama, Awdal region, and the semi-state water utility of Burao Water Agency (BWA) in Tog-dheer region. Both towns are European Union (EU) water project recipients, which is currently being managed by UNICEF and implemented by MoWR and other technical partners. At the end of the project duration in early 2017, nearly 2,200,000 people will benefit from sustained water supply, according to UNICEF.

### **Service delivery and management performance in Borama**

Borama is situated about 120 KM west of Hargeisa, the capital of self-declared Republic of Somaliland. There are approximately 120,000 inhabitants, and the city hosts a number of visitors during the summer months. The vast majority of visitors are from the diaspora community and residents of neighbouring Djibouti who spend the summer months in Borama. Prior to 2003, residents of Borama experienced their fair share of public water utility company failure. After a long public discussions, the residents agreed to have an alternative system which can manage the supply of the city's water needs. Since then, the town became a pioneer for PPP in Somaliland. The water supply system has been under a PPP lease contract since 2003. This current tripartite agreement signed between by the Mayor of Borama town, the Minister of Water Resources and the Chairman of the Awdal Utility Company (SHABA), paved the way for the transfer of service delivery responsibilities from the public to private sector. (Print, C. Petrucci, B. A. Mahmoud, A. Cige & O. Ahmed, 2011). Having assessed the performance of SHABA after ten years of service, the lease agreement was extended in 2013 for a further period of ten years, ending in 2023. The SHABA Company had an initial share capital of 21 shares at US\$ 5,000 per share. The shares have been re-valued at US\$ 14,000 per share. It is not clear whether this revaluation was as a result of a subsequent share capital increase by the shareholders.

Most of the performance indicators obtained for the company suggests that SHABA is performing at an acceptable level of efficiency. This efficiency makes the company profitable and it is therefore translated to payment of generous dividends to the shareholders (a total dividend of US\$ 42,000 was paid out during the first half of 2014). This begs the question whether the distribution of the profits of the company between the stakeholders is fair and equitable. Perhaps a larger portion of the profits could have been contributed towards reinvestments into expansion of the network and other capital investments. At present the water level in the boreholes is dropping at an alarming rate, indicating that the well-field is being over exploited. In due course major capital costs will be required to ensure sustainability of the system. It is not clear whether the company is making savings for this eventuality.

The number of household connections increased from 130 in 2002 to 5,435 by the end of 2009; by 2013 the number increased to 8,800 connections. The average production is reported to be 2,250 m<sup>3</sup>/day. The prevailing tariffs for water are as follows:

- Households (including 5% tax) is US \$ 1.16/m<sup>3</sup>
- Kiosks, US \$ 1.00/m<sup>3</sup>
- Stand pipes for water tankers US \$ 0.87/m<sup>3</sup>

Some shortcomings of the lease are:

- Lack of clear mechanisms to set and adjust water tariffs: Article 2 Clause 3 only states that the three parties to the contract will be “jointly involved” in setting up the water tariff.
- Lack of Performance measurement criteria: The nearest that the contract comes to specifying performance criteria is in Article 4 Clause 3 where it states that “... .. *the company as operator will provide clean hygienic water at reasonable cost*”.
- Lack of clarity on responsibility for future investments: Article 3 clause 1 states as follows:  
*“The private water management company will operate, maintain, repair, manage, and expand the water system with its own investments/ resources on sound commercial basis”*

The table below is clear evidence of the progress made by SHABA water utility since it has been formed. The base line is 2002 when the public water utility had failed and could not serve the public.

	2002	2008	2009	2010	2011	2012	2013	2014	2015	Remarks
Technical efficiency	40%	90%	91.79 %	90%	90%	89%	89.9 %	89.9 %	93%	
Billing efficiency	75%	100%	100%	100%	100%	100%	100%	100%	100%	
Collection efficiency	80%	92%	92.3 %	97%	98%	98.77 %	98%	98.3 %	98.5 %	
Number of staff	44	42	42	45	52	55	59	61	61	
Household connection	130	4,367	5,115	6,041	7,051	8,006	8,881	10,071	10,988	
Staff per 1000 household connections	338.5	9.7	8.2	7.5	7.4	6.9	6.6	6.3	5.6	
Household connections per 1000 inhabitants	1.5	48	52.4	59.9	70	73.2	74.2	74.4	74.8	Assumption (140,000)
Yearly operational ration		0.769	0.83	0.83	0.83	0.84	0.92	0.92	0.92	Operation/ Revenue

Source: SHABA, Annual Review Meeting in November 11, 2015

### **Service delivery and management performance in Burao**

Burao is the second largest city in Somaliland and the largest livestock market for Somalia. Burao is about 320 KM east of Hargeisa and has a population of 450,000 inhabitants. Burao Water Agency (BWA) is public water utility under operating contract with the MoWR and MoWR appoints the General Manager (GM).

The Burao Water Agency went through a crisis about 6 years ago as it was overburdened by debts, salaries arrears, and plants and equipment breakdowns, such that its operations were placed at risk and almost filed for bankruptcy. Poor revenue collection systems, ageing equipment and poor operating modalities and above all, poor management performance were evidently the causes of the BWAs troubles. Once the new National Water Act came into force in 2010, the MoWR took over the supervisory responsibility of the Agency from the municipality. A new management structure was appointed, financial management systems restructured, leakages in revenue collection system amended. The MoWR was very instrumental in the transformation process and was able to secure loan from the Central Bank of Somaliland. The Agency was able to get itself back on its feet from that point onwards. New financial systems were adopted, BWA managed to pay all back-salaries and purchased new vehicles and installed a number of new generators.

The Agency runs a computerised billing system and is able to alert customers by cell phone once their bills are ready. The company lacks a maintenance workshop for equipment repairs, and also much of its infrastructure is ageing. The “Operating Contract” between the MoWR, the Municipality and the Agency is in place, and there is a seven-member Water Board representing customer interests which meets monthly.

The Water Board supervises the implementation of the activities. The Water Board also intervenes in case of disruption of services and acts as an advocate for the marginalized groups. The municipality runs a water tanker that distributes water at no charge to poor households. Free water is offered to Mosques, hospitals and disabled persons. The “Operating Contract” currently in place states in Article 5: “Water is a commodity with economic and social importance, which obligates that there is no free water without any charge, although consideration will be given to vulnerable and poor people.”

There are 13 boreholes that serve the city’s water supply network that the BWA is responsible for. Forty percent of the residents have connections (SWALIM, 2013). According to BWA recent progress reports, the household connections increased from 5,331 in late 2010 to 13,835 in 2015. BWA reports the household metered water connections to be 12,741 and the cost is US \$ 1.16 per cubic meter. The number of boreholes increased from 5 to 13 with a current water production rate of 4,500 m<sup>3</sup> /day.

Type of connection	2010	2011	2012	2013	2014	2015
Household	5,331	6,058	6,983	8,174	N/A	12,741
Business	150	173	187	205	N/A	214
Kiosks	316	341	345	348	N/A	355
Stand pipe	0	2	2	3	N/A	3
Flat rate	602	647	688	719	N/A	522
Yearly Total	6,399	7,221	8,205	9,499	N/A	13,835

Source: prepared by MIDA Group for Terre Solidali until 2013, with 2015 data from BWA.

However, there are about 50 privately owned or self-supplied boreholes in the city, which the BWA is not responsible for. The privately own boreholes supplement the water supply in Burao. It is difficult to gather data on the privately held boreholes. SWALIM is assisting BWA in monitoring the ground water depletion through data sensor. The data collected by the wireless sensor is transmitted to FAO/SWALIM main office for further analysis.

Burao town never had any water reservoirs since the central government collapsed in 1990. The city water supply system has been operated on the basis of direct pumping. This required the pumps and generators to run 24 hours per day and when water is being pumped to maintain the pressure in the pipes. There are encouraging reports which say the city will have reservoirs in the very near future. The Somaliland Development Fund (SDF), a multi-donor trust fund, is funding two 100 m<sup>3</sup> reservoirs. Despite the two elevated water reservoirs projected by the SDF, Burao will still face water storage challenges. On average households have in-house storage capacity of 1 to 2 cubic meters.

### **Comparison of water supply delivery models**

It is evident that both models can deliver basic services provided that the management is competent but both systems depend upon support from government and donors to be established properly. The table below was provided by Fichtner Water & Transportation on their assignment in Somaliland, under the EU/UNICEF project. The consulting firm<sup>2</sup> has utilized multiple indicators regarding the comparison.

<b>Table 3.</b>						
<b>Indicator</b>	<b>Definition</b>	<b>Score range</b>	<b>Current/ Latest Performance Burao</b>	<b>Points Scored Burao</b>	<b>Current/ Latest Performance Borama</b>	<b>Points Scored Borama</b>
<b>Service coverage</b>	Population with convenient access to water services (either direct connection or within 250 meters of a kiosk) / Total population residing within the Provider's area of responsibility, expressed as a percentage	0 < 60% 1 60-70% 2 70-80% 3 >80%	<b>49.07%</b>	<b>0</b>	<b>69.8%</b>	<b>1</b>
<b>Billing efficiency</b>	Number of Connected Customers receiving Bills each month / Total Number of Connected Customers x 100	0 < 80% 1 80-90% 2 90-100% 3 100%	<b>97.85%</b>	<b>2</b>	<b>92.0%</b>	<b>2</b>
<b>Collection efficiency</b>	Amount collected during Year n / Amount billed during year n, expressed as a percentage	0 < 70% 1 70-80% 2 80-90% 3 > 90 %	<b>90.03%</b>	<b>3</b>	<b>92.0%</b>	<b>3</b>
<b>Staff/1000 connections*</b>	(Number of staff employed x 1000) / (Number of connections + Number of households using kiosks)	0 > 12 1 10-12 2 8-10 3 < 8	<b>5.64</b>	<b>3</b>	<b>5.9</b>	<b>3</b>
<b>Operating cost coverage ratio</b>	Total Revenue / Total Operating Cost in the year, expressed as a percentage	3 >120% 2 110-120% 1 100-110% 0 <100%	<b>106.75%</b>	<b>1</b>	<b>105.8%</b>	<b>1</b>
<b>Non-revenue water</b>	(Volume of Water Produced - Volume of Water Sold) / Volume of Water Produced, expressed as a percentage	0 >40% 1 30-40% 2 20-30% 3 < 20%	<b>25.69%</b>	<b>2</b>	<b>9.8%</b>	<b>3</b>
<b>Total points</b>				<b>11</b>		<b>13</b>

The table above summarizes the progress made by both models in delivering the water service. Both towns scored very well according to Fichtner Water & Transportation who undertook the assessment<sup>3</sup>. BWA is a public water utility that is less business oriented than that of SHABA, but it nevertheless has shown positive progress.

It is notable that Water User Association (WUAs) have been established in the both towns for the first time. The WUAs are responsible in bridging the gap between the utility companies and the general public in terms of consumer rights to the water service delivery. The main objective of the WUA is to protect the

consumer's right in receiving fair treatment from the service provider. WUAs have benefited from an exchange visit to Kampala, Uganda and they were exposed to how similar utility organizations operate in the region with support from the EU/UNICEF project. Similarly, line managers and heads of technical departments, including MoWR staff in project towns have participated in the study tour to Kampala in late 2015.

### **Synopsis of the EU/UNICEF to the two towns**

25-year master plans and 8-year industrial plans are in place with concise regulatory framework and performance monitoring of the utilities developed. The concept of Water User Associations is new to Somaliland but has been well embraced by the communities and the water service providers. To ensure smooth operation of the WUA, a collaborative strategy document delineating the roles and responsibilities of the WUAs and WSP has been developed. To ensure continuous engagement with the users, a communication strategy was developed. To ensure adequate oversight by the MoWR, a capacity gap analysis for eminent capacity development was also conducted. Since this project was equity focussed, a situational analysis and assessment of pro-poor approaches was conducted as well. All of the above constitute 70% of the project cost with only 30% allocated to hardware.

### **Conclusions**

Given the right level of support coupled with competent management, the public water utility model can compete and deliver basic essential services to the public. In addition, the public water utility can be successful in Somaliland. According to Fichtner, Borama is the best urban private water utility in Somaliland, demonstrated through its competent management. Its indicators are comparable to well managed water utilities in the region. SHABA has sustainably managing ground-water resources and delivered service beyond the call of duty. In short, both models can serve the public if management is competent and willing to improve the water supply of their respective towns.

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### **Note/s**

<sup>1</sup> Somali Water and Land Information Management System, UN Food and Agriculture Organization: <http://www.faoswalim.org/>.

<sup>2</sup> Fichtner Water & Transportation. Regulatory Framework Report. February 2015

<sup>3</sup> Fichtner W&T p. 42 Regulatory Framework report, Feb. 2015

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