Informal service providers in Tanzania
A differentiated perspective on managing
the unwanted side of water service provision
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A differentiated perspective on managing the unwanted side of water service provision
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<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>BMZ</td>
<td>Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
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<tr>
<td>EWURA</td>
<td>Energy and Water Utilities Regulatory Authority</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>ISP(s)</td>
<td>Informal Service Provider</td>
</tr>
<tr>
<td>LIA(s)</td>
<td>Low-Income Area(s)</td>
</tr>
<tr>
<td>MoW</td>
<td>Ministry of Water</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Government Organization</td>
</tr>
<tr>
<td>SSPSP</td>
<td>Small Scale Private Service Provider (A different term for ISP used in other publications)</td>
</tr>
<tr>
<td>TSH</td>
<td>Tanzanian Shilling</td>
</tr>
<tr>
<td>WSSA</td>
<td>Water and Sanitation Service Authority</td>
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</tbody>
</table>
ABSTRACT
The paper examines the importance of Informal Service Providers (ISPs) for water service delivery in urban centers in Tanzania. The paper provides a typology and definitions of ISPs and uses empirical data to show their varying importance with regards to service provision in Tanzania. Based on those, the article provides rough outlines for tailored approaches to address ISPs in sector policies. While some types of ISPs are obstacles to improving the overall service level to the poor, others may be elements to a successful sector reform.

The baseline survey on low-income underserved urban centers

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) commissioned the survey in cooperation with the Ministry of Water (MoW) and the Energy and Water Utilities Regulatory Authority (EWURA) in November 2009. Data on water and sanitation services in Low-Income Areas (LIAs) was collected from February 2010 to September 2010 in the 19 regional towns and Dar es Salaam through household interviews, focus group discussions and interviews with ISPs. Moreover, GPS data was collected including coordinates and pictures of water points and sanitation facilities as well as administrative boundaries.

The objective of the study was to provide detailed information on the water and sanitation situation in LIAs to relevant water sector institutions to allow for better targeting of funds, to make informed decisions on infrastructure development and, for the regulatory authority, to develop adequate regulatory and monitoring approaches. The exercise resulted in the Baseline Study Database and the Baseline Study GIS, which are hosted at MoW and EWURA and available to all stakeholders. Geo-referenced data is available free of charge using google.earth: http://www.ewura.go.tz/waterbaselinestudy.html
INTRODUCTION
Water Service Provision in Tanzania by public utilities is – in most urban centers – in a dire state. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH recently conducted a sector survey collecting information from 32,480 household interviews, 599 focus group discussions and 2,315 ISPs interviews in low-income areas in the 20 biggest urban centers in Tanzania. The survey findings suggest that about 53% of the whole population in Tanzania receives drinking water from ISPs.1

Service delivery by public utilities to the urban poor living in so-called Low-Income Areas (LIAs) in the 20 surveyed towns in Tanzania is correspondingly low with only 23% of the population receiving their drinking water from a public utility.

The service gap of 77% is to a large extent minimized by ISPs, which currently serve around 68% of the population in LIAs2. Those not receiving water from ISPs fetch their water from rivers, streams or ponds. In absolute figures this means that ISPs provide water to approx. 4.65 million people living in urban LIAs in Tanzania.

Clearly, ISPs have an important role in service provision in Tanzania. However, ISPs are not organized as a group in any way, such as an association. They set their tariffs at will and the quality of the water they deliver is not subject to any form of standardization or monitoring by the Energy and Water Utilities Regulatory Authority (EWURA).

There is no sector policy describing how, or if at all ISPs should be considered in any effort to improve service provision in urban centers. Government agencies, donors and development partners continue to debate whether ISPs are part of the root problem to insufficient water supply by public utilities – or may even be part of the solution to improving water service to the Tanzanian population.

Characteristics of a low-income area (LIA):

- high incidence of economic poverty accompanied by poor living conditions and other forms of non-economic poverty
- limited access to adequate and affordable safe water supply and basic sanitation facilities
- households depending on on-site sanitation facilities
- lack of adequate housing and limited or no access to other infrastructure and services such as solid waste, storm water drainage, street lights, roads and footpaths
- areas can be planned or unplanned
- low-income households may be confined to specific areas, but may also occur as small size slum dwellings that mix with higher income household areas (pocket areas)
- a haphazard layout, and/or difficult geographical and environmental conditions
- prevailing high population densities
- low and unpredictable incomes (earned daily mainly through informal activities)
- a devastating public health situation.

2 The figures for LIAs always refer to the LIAs in the 19 regional towns Arusha, Babati, Bukoba, Dodoma, Iringa, Kigoma, Lindi, Mbeya, Moresgoro, Moshi, Mtwara, Musoma, Mwanza, Shinyanga, Singida, Songea, Sunzawanga, Tabora and Tanga and to the LIAs in Dar es Salaam.
1.0 A TYPOLOGY OF ISPs
The term Informal Service Provider refers to all service providers that supply water but have not been licensed by EWURA. As such they do not provide their services within the existing regulatory framework, and are illegal providers as by the EWURA Act 2006 and the National Water and Sanitation Act 2009.

The term ISP – sometimes also described as Small Scale Private Service Providers (SSPSPs)3 – is a very broad definition. In reality there are large differences between the various types of ISPs for example with regard to size (number of customers, number of employees), organizational form, source of water provision and service levels. Some of them are operated by only the owner, others by Community Based Organizations (CBOs); some have piped systems, others supply water by tanker or pushcart.

In addition, ISPs are either intermediate service providers, reselling water from the public utility or independent service providers drawing water from independent sources such as private boreholes and wells. A more detailed analysis of the relevance of ISPs for service provision requires a more in-depth look at the various types of ISPs.

We distinguish between the following:

**Neighborhood re-seller**
Include individuals or households that supply (sell) water from their own (legal or illegal) domestic water connection, which is supplied by a Water Supply and Sewerage Authority (WSSA), a public utility.

**Private boreholes**
Are individuals or private companies that sell water either via a network or directly from a borehole or tank. The owner built the infrastructure by using his own financial resources (usually his/her own savings) and possesses full property rights over the assets, such as the right to transfer possession to others. While mobile vendors and tankers are also privately run, a borehole ISP differs from those in that the owner built an infrastructure of some kind that cannot (easily) be moved, e.g. the borehole itself or a network lying underground. If a network is connected to the borehole the provider can only service people with a connection to the network. As such private boreholes are a mainly sunk cost. In contrast e.g. water tankers operate geographically largely independent, can transport all sorts of liquids and as such can be sold much easier.

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The terms Water Supply and Sewerage Authority (WSSA) and public utility are used interchangeably in this paper - both referring to the public regulated service provider in the urban areas, responsible for water provision.
1.0 A TYPOLOGY OF ISPs

**Water tanker**
Is a road vehicle carrying or mounted with a vessel for the purpose of transporting, distributing and supplying water. Water tankers are a specific type of mobile vendors not primarily focusing on customers in LIAs. A tanker is often owned by one person and driven and operated by a hired driver. In those cases the driver pays a *rent* to the owner and is responsible for fuel costs and minor repairs. He then keeps all revenues exceeding his rent payment and operational costs as profit.

**Mobile vendors**
These are ISPs who sell or resell water provided by a WSSA or obtained from an independent source or a different type of ISP using some kind of (hand) carrier. Ownership and operation of a push card are usually in the hands of the same person.

**NGO/community/institutional schemes**
These are water schemes managed by a NGO, community or institution (e.g. church, school) that supply (sell) water from a public utility connection or from an independent source (e.g. borehole) using their own infrastructure (tank, borehole, etc.). This means the ISP acquired the infrastructure and possesses full property rights over the assets, such as the right to transfer possession to others.
2.0 THE IMPORTANCE OF ISPs FOR SERVICE PROVISION
In many urban centers, ISPs are currently the predominant form of water service provision to the Tanzanian population. Without ISPs the majority of Tanzanians living in urban centers would at the moment not have access to any form of water supply as public utilities do currently not cover their mandated service areas! Based on the survey findings, the estimated percentage of the total Tanzanian urban population who receive their water from some type of ISP is estimated at 53%.

The situation is especially critical in LIAs. Only 27% of all LIA households have domestic water connections served by a licensed public utility. However, 29% of these connections do not provide water, because they are disconnected, or because they do not receive water due to technical reasons (e.g. low pressure, no water in the distribution network). The share of domestic connections that do not provide water is highest in LIAs in Kigoma (45%), followed by Dar es Salaam (44%). In total, approximately 23% of the LIA population use drinking water from a household connection (no neighborhood re-seller) or a water kiosk receiving water from a public utility and take less than 30 min to fetch water. Table 1 on page 16 summarizes detailed information with regard to water supply / service provision on survey area level.
While the water supply coverage of the LIA population through ISPs is quite high, the different types of ISPs contribute to varying degrees as shown in Figure 1.

**Neighborhood re-sellers** represent the predominant type of ISPs in Tanzania. They serve around 32% of the LIA population in the 20 urban centers. This translates into approximately 483,500 households, which fetch water from their neighbor’s connection. Neighborhood re-sellers mostly provide water from a public utility connection and, therefore, occur in areas with a public network. In the urban centers of Mwanza, Morogoro, and Mbeya public water utilities even promote neighborhood re-sellers as a means to increase their service coverage in LIAs even though this form of water supply is prohibited by EWURA. Especially under a flat rate tariff scheme neighborhood re-sellers are the cause for revenue losses and increased unaccounted for water for the public utility.6 The potential for integrating customers of neighborhood resellers into the public utility system of service provision is considerably high.

Private boreholes are second in importance to neighborhood re-sellers (provision of services to 25% of LIA population). However, the survey shows that such ISPs are particularly common in Dar es Salaam but have a rather limited impact in other cities. In Dar es Salaam 44% of the LIA population is supplied by private boreholes, while the percentage in other cities in Tanzania is significantly lower for example accounting for only 1% in LIAs in Arusha and Mtwara and even less than 1% in Tanga and Mwanza.

Water tankers play a small role in water service provision in Tanzanian LIAs. Only 3% of the poor population currently receives their water supply from water tankers. First, tankers usually need a minimum quality road condition and a certain road-width to be able to operate/navigate. Due to the unplanned nature, high population density and lack of transport infrastructure in LIAs, tankers can often not access these areas.

### Table 1  Overview of the status of Water Service Provision in LIAs by urban centers

<table>
<thead>
<tr>
<th>Survey area</th>
<th>Water supply coverage LIA</th>
<th>% of LIA pop. with domestic WSSA connection</th>
<th>Metering ratio domestic</th>
<th>% disconnected domestic connection or no water</th>
<th>% of LIA pop. receiving water from ISP</th>
<th>% of LIA pop. receiving water from neighborhood re-sellers</th>
<th>% of LIA pop. spending more than 30 min. to fetch water</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>23%</td>
<td>27%</td>
<td>79%</td>
<td>29%</td>
<td>68%</td>
<td>32%</td>
<td>13%</td>
</tr>
<tr>
<td>Arusha</td>
<td>37%</td>
<td>35%</td>
<td>96%</td>
<td>18%</td>
<td>56%</td>
<td>53%</td>
<td>10%</td>
</tr>
<tr>
<td>Babati</td>
<td>16%</td>
<td>16%</td>
<td>100%</td>
<td>11%</td>
<td>41%</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Bukoba</td>
<td>40%</td>
<td>38%</td>
<td>93%</td>
<td>7%</td>
<td>16%</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>Dar es Salaam</td>
<td>10%</td>
<td>17%</td>
<td>75%</td>
<td>44%</td>
<td>88%</td>
<td>23%</td>
<td>11%</td>
</tr>
<tr>
<td>Dodoma</td>
<td>30%</td>
<td>32%</td>
<td>95%</td>
<td>15%</td>
<td>55%</td>
<td>48%</td>
<td>24%</td>
</tr>
<tr>
<td>Irigna</td>
<td>52%</td>
<td>50%</td>
<td>86%</td>
<td>8%</td>
<td>42%</td>
<td>41%</td>
<td>12%</td>
</tr>
<tr>
<td>Kigoma</td>
<td>10%</td>
<td>46%</td>
<td>9%</td>
<td>45%</td>
<td>61%</td>
<td>8%</td>
<td>39%</td>
</tr>
<tr>
<td>Lindi</td>
<td>46%</td>
<td>24%</td>
<td>94%</td>
<td>8%</td>
<td>45%</td>
<td>29%</td>
<td>9%</td>
</tr>
<tr>
<td>Mbeya</td>
<td>52%</td>
<td>49%</td>
<td>60%</td>
<td>10%</td>
<td>43%</td>
<td>42%</td>
<td>12%</td>
</tr>
<tr>
<td>Morogoro</td>
<td>54%</td>
<td>54%</td>
<td>91%</td>
<td>16%</td>
<td>41%</td>
<td>36%</td>
<td>12%</td>
</tr>
<tr>
<td>Moshi</td>
<td>54%</td>
<td>45%</td>
<td>98%</td>
<td>1%</td>
<td>38%</td>
<td>37%</td>
<td>7%</td>
</tr>
<tr>
<td>Mtwara</td>
<td>40%</td>
<td>35%</td>
<td>94%</td>
<td>8%</td>
<td>56%</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td>Musoma</td>
<td>31%</td>
<td>33%</td>
<td>78%</td>
<td>4%</td>
<td>57%</td>
<td>56%</td>
<td>6%</td>
</tr>
<tr>
<td>Mwanza</td>
<td>36%</td>
<td>36%</td>
<td>98%</td>
<td>4%</td>
<td>50%</td>
<td>49%</td>
<td>13%</td>
</tr>
<tr>
<td>Shinyanga</td>
<td>34%</td>
<td>34%</td>
<td>96%</td>
<td>5%</td>
<td>44%</td>
<td>38%</td>
<td>13%</td>
</tr>
<tr>
<td>Singida</td>
<td>29%</td>
<td>20%</td>
<td>66%</td>
<td>13%</td>
<td>24%</td>
<td>8%</td>
<td>45%</td>
</tr>
<tr>
<td>Songea</td>
<td>35%</td>
<td>38%</td>
<td>79%</td>
<td>8%</td>
<td>33%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Sumbawanga</td>
<td>17%</td>
<td>14%</td>
<td>73%</td>
<td>9%</td>
<td>36%</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Tabora</td>
<td>47%</td>
<td>41%</td>
<td>63%</td>
<td>32%</td>
<td>27%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Tanga</td>
<td>56%</td>
<td>47%</td>
<td>97%</td>
<td>6%</td>
<td>42%</td>
<td>42%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Secondly, to maximize the number of deliveries per day, it is preferable for a water tanker to deliver water to a middle- or high-income area, where households own adequate storage facilities and where the entire load (usually 5-10 cubic meters) can be sold at once. In contrast, low-income households usually do not have water storage facilities and buy water by the jerry can. A water tanker supplying a LIA, therefore, has to spend a lot of time making many, small, individual sales. A water tanker may even have to drive to different LIAs to find enough customers to sell its entire load. It is, therefore, simply financially preferable for tankers to cater to middle/high-income areas, such as the Masaki Peninsula in Dar es Salaam.

While water tankers are very much a means for water service provision to middle and high-income households, mobile water vendors (push cards) are usually last resort water supplier for the poor. Mobile vendors usually supply those areas, which have mushroomed informally within and at the edge of a city and have no network coverage at all. Tankers do not drive to these neighborhoods. Also, the majority of the population in those neighborhoods does not have the financial means to invest into drilling a borehole and to sell water privately. Mobile vendors fill the market niche catering for 10% of the LIA population.

NGO/community/institutional schemes are of equally low importance as water tankers, serving about 3% of the LIA population. In contrast to water tankers, many NGO/community/institutional schemes serve LIAs from community owned boreholes. The schemes are set up by the community mostly with support from Development Partners or NGOs, by CBOs or by institutions e.g. churches, mosques and schools. Tariffs are set by the community itself (80%) or by the management of the organization and are usually based on the communities’ willingness and ability to pay. Although the number of this specific type of ISP is not very high, the average customer base is higher than for any other type of ISP with 69 households served on average.
3.0 THE PERFORMANCE OF ISPs
The survey results suggest that the performance of ISPs differs substantially between the various types of ISPs and sometimes even between different urban centers.

Sources
Most ISPs re-sell water from the public utility. 66% of all ISPs interviewed in the survey are intermediate operators, re-selling water from a public utility connection either exclusively or to some degree. While some types of ISPs, e.g. neighborhood re-sellers, receive all of their water from the public utility, other types of ISPs draw water for other sources. In some cases they also mix water from the public utility with water from other sources. The degree to which water from different sources is mixed depends on season and sometimes water quality. For example some tanker vendors mix salty water from a private borehole with water from the public utility to dilute the saltiness.

Quality
Water quality delivered by ISPs is usually unknown and untested. While many of the ISPs re-sell water from the public utility, there are substantial differences between the various urban centers concerning the use of utility connections as source of water for ISPs. In some towns nearly 100% of the ISPs claim to sell water from the public utility (e.g. in Moshi, Tanga, Iringa). This relates closely to the high occurrence of neighborhood re-sellers in these towns. Contrary, for example in Kigoma only 9% of the ISPs responded to take water from a public utility connection for resale. In this town in particular, many mobile vendors draw water from open (unimproved) sources with doubtful quality posing a risk to the health of their customers. Also, an operator’s commercial and availability concerns usually override health concerns for their customers. The large majority of ISPs does not conduct water tests or treats the water they sell which means that adequate water quality cannot be guaranteed. Only 33% of the private boreholes, NGO/community/institutional schemes and water tankers claimed that they carry out water quality tests. 30% of these operators indicated that they treat the water they sell. A verification of these claims was not possible during the study.
**Tariffs**

On average households in LIAs, which receive water from an ISP pay 13-times the price than they would if they received water from a house connection; and still pay 3-times the price than they would, if they received their water from a kiosk. The average price charged for water provided across all types of ISPs in LIAs is 131 TSH (0.07 Euro) per jerry can (20 liter). That is 3.28 Euro per cubic meter (m³) of water. ISP tariffs also differ substantially depending on type. A detailed analysis shows that while some types of ISPs charge notoriously high tariffs, other types of ISPs sell water at close to the official public utility tariff.

Mobile vendors charge the highest prices with 269 TSH (0.13 Euro) per jerry can or 6.73 Euro per m³ of water. Second most expensive are water tankers, which charge on average 187 TSH (0.09 Euro) per jerry can or 4.68 Euro per m³, followed by private boreholes with 69 TSH per jerry can (0.03 Euro) or 1.73 Euro per m³ on average. Neighborhood re-sellers on average charge 52 TSH per jerry can (0.03 Euro) of water - or about 1.30 Euro per m³ of water. The lowest prices are paid by customers of NGO/community/institutional schemes, who pay 35 TSH (0.02 Euro) or about 0.88 Euro per m³. ISPs typically do not charge a connection fee, service fee or meter rent etc. in contrast to domestic connections from the public utility.

In comparison, domestic tariffs in the 20 largest public utilities’ (WSSAs) for the first block range between a minimum of 360 TSH (0.18 Euro) per m³ in Mbeya and a maximum of 750 TSH (0.38 Euro/m³) in Shinyanga. Most WSSAs apply rising block tariffs. Seven utilities also offer flat rate tariffs. In most towns a customer with a domestic water connection has to pay a service charge (fixed position) of on average 1,733 TSH (0.87 Euro/month). Some WSSAs charge a meter rent of around 500 TSH (0.25 Euro) to 10,750 TSH (5.38 Euro) per month.

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### Some advantages and disadvantages of ISPs

**Disadvantages of ISPs**

- High Tariffs.
- Water quality standards cannot be guaranteed.
- Lack of customer rights in case the operator is not performing well.
- ISPs cannot guarantee sustainable access. The operator may deny any customer access to services at any time without giving a reason or a customer an opportunity to appeal.
- ISPs do not comply with the central principles of the human right to water.

**Advantages of ISPs**

- ISPs nearly exclusively supply households who are not served by a public utility.
- ISPs adapt their services and service level to the needs of their customers such as individual paying procedures, flexible supply hours, delivering to the doorstep etc.
- Measured by availability and customer service orientation. Many ISPs perform better than a public utility.
- Most ISPs are well integrated into the local or community context implying that they are well known to their customers.
- ISPs provide employment or income opportunities for people in LIAs.

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7 All calculations are based on an exchange rate of 1 Euro = 2000 Tanzanian Shillings.

8 EWURA (2012): Water Utilities Performance Report for 2010/11. The average water tariff shows how much a public utility’s customer pays on average for each m³ billed. It includes metered and un-metered consumption and therefore also depends on the provider’s assumption regarding the consumption of un-metered customers or their authorised consumption respectively.
### Figure 2  Overview of average tariffs of ISPs and public utilities

#### Type of ISP

**Mobile vendors**

<table>
<thead>
<tr>
<th>Per jerry can</th>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>269 TSH</td>
<td>13 450 TSH</td>
</tr>
<tr>
<td>0,13 EUR</td>
<td>6,73 EUR</td>
</tr>
</tbody>
</table>

**Water tankers**

<table>
<thead>
<tr>
<th>Per jerry can</th>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>187 TSH</td>
<td>9 350 TSH</td>
</tr>
<tr>
<td>0,09 EUR</td>
<td>4,68 EUR</td>
</tr>
</tbody>
</table>

**Private boreholes**

<table>
<thead>
<tr>
<th>Per jerry can</th>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>69 TSH</td>
<td>3 450 TSH</td>
</tr>
<tr>
<td>0,03 EUR</td>
<td>1,73 EUR</td>
</tr>
</tbody>
</table>

**Neighborhood re-sellers**

<table>
<thead>
<tr>
<th>Per jerry can</th>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 TSH</td>
<td>2 600 TSH</td>
</tr>
<tr>
<td>0,03 EUR</td>
<td>1,30 EUR</td>
</tr>
</tbody>
</table>

**NGO/community/institutional scheme**

<table>
<thead>
<tr>
<th>Per jerry can</th>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 TSH</td>
<td>1 750 TSH</td>
</tr>
<tr>
<td>0,02 EUR</td>
<td>0,88 EUR</td>
</tr>
</tbody>
</table>

**Public utility (WSSA)**

<table>
<thead>
<tr>
<th>Per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>360 - 750 TSH</td>
</tr>
<tr>
<td>0,18 - 0,38 EUR</td>
</tr>
</tbody>
</table>

---

Excludes service charge and meter rent, which is charged in most utilities.
4.0 TAILORED APPROACHES TO DEALING WITH ISPs IN SECTOR DEVELOPMENT
ISPs neither comply with international standards (such as the human right to water)\(^\text{10}\) nor with national principles and regulations. Currently ISPs operate within areas where water supply is supposed to be regulated by EWURA while their service provision is presently unregulated. Consequently, customers of ISPs cannot be considered covered by improved water supply and do not appear in the national statistics for water coverage. In order to improve water supply for the LIA population and to increase official coverage rates a twofold approach is required:

A vision and long-term strategy is needed, emphasizing the extension of formal water supply by public utilities through a targeted pro-poor approach. This process requires considerable investments into water infrastructure and takes time. Until acceptable formal water supply is provided to the population, especially the poor in urban centers will continue to depend on the services of ISPs. Consequently, an intermediate approach is needed to minimize the deficiencies of ISPs and to make informal service provision benefit the Tanzanian water sector development in the meantime. In this context, it is crucial to define tailored approaches for the different types of ISPs.

\(^{10}\) For further information: Inga T. Winkler (2012): The Human Right to Water – Significance, Legal Status and Implications for Water Allocation, Oxford and Portland
ISP are an obstacle to pro-poor approaches implemented by public utilities, particularly with regards to the implementation of public water kiosks. While one may assume that ISPs are common, specifically where the population does not have access to public water kiosks, the opposite is true. Survey data suggests that ISPs — more specifically neighborhood re-sellers - are a prevalent form of service provision also in areas where kiosks are accessible to the population.

Residents reported a total of 1,055 functional and non-functional public water outlets (e.g. water kiosks, public standpipes) in the 550 LIAs surveyed. Most water kiosks are located in the LIAs of Dar es Salaam (in total 332 kiosks) followed by Tanga (in total 100 kiosks). However, reported coverage through public kiosks is rather low with 0% in DSM and 10% in Tanga. Coverage by kiosks is highest in Singida where 25 water kiosks are reported to serve 35% of the urban population, followed by Tabora where 74 kiosks serve 28% of the population.

While a large part of the population in those areas would have a kiosk in reasonable walking distance, only 4% of the LIA population fetches their drinking water at kiosk. When questioned 31% of the LIA population answered that they prefer to fetch their drinking water at someone else’s connection (neighborhood re-sellers). The reasons for the preference of neighborhood re-sellers despite the availability of operational kiosks are social and financial benefits of neighborhood re-sellers for the re-sellers and consumers. Fetching water from a neighbor is often physically less strenuous than fetching water from a kiosk, simply because the neighbor is usually closer, living in the immediate vicinity. Moreover, the sales act is often seen as a favor between neighbors, which may also be an opportunity to socialize over the fence. Nevertheless, preference of neighborhood re-sellers over kiosk water supply is not only influenced by social, but also financial parameters.

The tariff set by EWURA for a 20 liters bucket/jerry can of water at a kiosk is currently at 20 Tanzanian Shilling. Findings from the baseline survey and other research suggests that most kiosk operators ignore EWURA regulation and charge on average 46 TSH (0.02 Euro) per jerry can or 2,277 TSH (1.13 Euro) per cubic meter of water. This is about 3 to 10 times the tariff charged for water at a household connection (Minimum 360 – 750 TSH / 0.18-0.38 Euro per m³)! In Songea a person fetching water at a kiosk pays 14.7 times the price that he/she would for water from a household connection.

In contrast, the tariffs charged by neighborhood re-sellers are moderate and close to the prices paid for water at the kiosks — on average neighborhood re-sellers charge 52 TSH (0.03 Euro) per jerry can. Neighborhood re-sellers are actually often the unintended consequence of the existing tariff schemes in many cities as more than half of the public service providers offer flat rate tariffs, despite a rather high metering ratio (79%) of domestic connections in LIA areas.
In sum, the high prevalence of neighborhood re-sellers and the low acceptance of water kiosks in Tanzania are partly due to a sector structure that edges the financial and social benefits for customers and re-sellers towards neighborhood re-sellers.

A successful approach to dealing with neighborhood re-sellers is based on two pillars: First, EWURA would dis-incentivise re-sellers to act, essentially, as bulk suppliers for their neighbors by switching from flat rate to increasing block tariffs. With a metering ratio of household connections in LIAs of 79% there is no reason for public utilities to charge flat rate tariffs. Where connections are not metered, funding from donors or consumer driven financing mechanisms, such as small consumer loans or payments in installments etc. should aim at increasing the metering ratio. Already utilities (e.g. Dodoma) apply for commercial loans to buy meters, which they repay with the increased revenue collection after the successful installation of the meters. The GIZ Capacity Development program in Tanzania has taken up the Loan Guidelines, which were developed between MoW, EWURA and GIZ, and supports the utilities in developing loan applications for small-scale investment with commercial banks.

Secondly, on the customer side, the utility should recognize that dealing with neighborhood re-sellers in Tanzania should be guided by integrating those customers into the formal, public utility supply system either by individual house connections or water kiosks. Essentially, neighborhood customers are already customers of the public utility. The survey revealed that most people have no problems giving information from which neighborhood reseller they receive their water. If they are customers of neighbors re-selling water, they should be offered household connections. To incorporate the living situation of the population in LIAs, the utilities should offer payment in installments for new connection charges etc. Through an adapted tariff structure with a low tariff for the first bracket it should be ensured that a minimum amount of water is affordable to all customers of the utility.

4.2 PRIVATE BOREHOLES AS MEDIUM TERM SOLUTIONS TO PROVIDING RELIABLE SERVICES

Private boreholes serve a total of 24% of the population and play a significant role in water service provision in Tanzania and particularly in Dar es Salaam, where private boreholes account for serving about 44% of the population in LIAs. This is about 1.55 million people.

Private boreholes are often operated by the middle- to high-income households having the necessary funds available for drilling and construction. Once taken into operation those households become de-facto small-scale utilities selling their water directly from the storage or through small, privately funded spaghetti networks. Only 7% of the private schemes receive their water from the respective utility using mostly tanks for water storage. They serve everything between 5 and over 300 households depending on their size. 31% of such providers claim to monitor water quality and 32% claim to at least chlorinate their water once per week. The average tariff private boreholes apply is 69 TSH per 20 liters Jerry can.

Private boreholes do not only face competition from other operators of the same type, but also from mobile vendors, water kiosks and sometimes water tankers. The costs of the infrastructure, including pipes and meters in case of networks, are typically born by the service provider. Most private borehole operators provide water 24/7. A service standard that in 2010/11 only one (Tanga) out of a total of 20 WSSAs and 109 small town public utilities matched. Operators of private boreholes are also often flexible with regards to their billing. Whereas all utilities in Tanzania send bills once a month, private borehole operators usually allow for payments once per week, making it easier for households to generate the necessary funds. In sum, many private boreholes are well integrated into their neighborhood and have a very good knowledge and understanding not only of how to professionally operate a borehole, but also of their customers’ needs and financial constrains. In order to make business, many provide flexible and reliable services adapted to meet their customers’ needs.

According to current Tanzanian law, private boreholes provide their services illegally. From a regulatory or sector development perspective, a selective formalization of those providers could be advisable for Tanzanian urban centers. For those neighborhoods, where the public utility will not have the funds to extend its network in the short- to midterm, EWURA is currently debating the issuance of short term (3 year) licenses. The license will formalize and legalize

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11 Water kiosks can be defined as all public outlets that are managed by a licensed service provider. Water is sold at a regulated tariff either by an independent operator, a committee or a utility employee. Water kiosks can either be open or semi-open structures or closed facilities with roofs.

12 For additional information GIZ (2012) conducted the Study of Water Kiosks in Urban Settlements as part of the Baseline Study of Low-income Undererved Urban Areas in Tanzania. This study looked more in-depth into the situation of kiosk systems in Tanzania, analyzing performance and challenges with a special focus on the kiosks located in Mwanza and Mtwara.
private borehole operators. At the same time it puts the private borehole operator under periodic scrutiny of EWURA and the local public service provider with regards to water quality testing, monitoring and tariffs. EWURA and the local public utility know the locations of most private boreholes. Their investments are stationary and an operator’s identity and address is also known. Thus, the implementation and administration of such an approach could be done with reasonable cost and effort for the regulatory agency and the respective local public utility.

A license can be issued fairly easily. However, EWURA or the public utility would have little means to enforce a shutdown of a private borehole after its license has run out or the provider has proven not to meet the required standards. At the same time, a license also serves as a public display to customers that a service provider meets EWURA rules and regulations and thus would give him a competitive advantage over those, who have not received a license or whose license has been withdrawn. A license could thus, provide an incentive for private borehole operators to offer minimum service and – by competitive pressure – help to weed out those who do not. While the verdict on such a regulatory approaches in Tanzania is still out, experience from other countries such as Mozambique shows that some private borehole operators were running their businesses so reliably that they were issued licenses for additional mini grid operations in a competitive bidding process serving urban centers that fell under the development plans of the Mozambique Water Asset Holder (FIPAG).

4.3 WATER TANKERS AS NICHE SUPPLIERS FOR THE WEALTHY

Sector policies or regulations aimed at improving services from water tankers need to differentiate between the tanker services themselves and the sources that the tankers receive their water from.

Water sources are stationary. They are boreholes, leaks in the public network or filling stations specifically designed to supply bulk water from the public utility. 63% of water tanker operators claim to receive their water from a public utility or a community run scheme. Private boreholes or other sources do often not supply tankers, as they normally do not yield enough water to reliably supply several tankers, several times per day. With tankers mostly receiving water from a public utility, quality assurance and monitoring is part of the utility’s daily operation. In cases where tankers receive their water from boreholes, a quality control of the water could be done at reasonable costs at the source itself. However, quality control at the source does not protect the consumer from having the water filled into and delivered from a polluted tank. In order to avoid pollution originating in the water tank itself, quality control would have to be done randomly within the tankers, not at the boreholes or the utility network.

Regulating water tankers implies the need to identify and locate them, their drivers and owners. One possible approach could be to force water tanker service providers to register with the public service providers and require them to have their quality tested by the public service provider in a regular manner. Pollution of the water often results from the actual tank being used for other services (e.g. fuel) and no regular cleaning. To maintain reasonable water quality, the tank should be cleaned periodically. To regulate the tariff a water tanker provider should be required to display the regulated tariff on the vehicle together with a public utility’s phone number for complaints. Regulations supporting such a form of quality and tariff monitoring have recently been drafted by EWURA.

The disadvantage of regulating water tankers is in the resources needed for effective implementation. Most critically, there is no incentive for tanker service providers to register themselves. Water tankers operate their business profitably by charging high tariffs and not having to monitor the quality of their water. There is no financial rationale why operators of water tankers would easily adhere to tariff regulation or any form of quality control.

Also, water tanker operators change their locations constantly during the day. It would, therefore, be very difficult and resource intensive for EWURA to identify all tankers in a given area and install a system of quality control, while tankers are in operation. Also water quality testing puts a substantial financial burden on the public utility itself that it would not want to cover unless there is a clear benefit.

In sum, given the costs and resources needed to effectively implement water tanker regulation and, particularly, the very limited scope of tanker service provision in Tanzania (3% of population in LIAs), efforts to regulate tanker service provision may not be appropriate from a pro-poor perspective. While above-mentioned forms of tanker registration, quality and tariff monitoring are feasible; their implementation is suggested for cities/countries where a high prevalence of tanker services with regards to their share in serving the poor population allows for a better balance of costs and benefits.
4.0 Tailored Approaches to Dealing With ISPs in Sector Development
4.4 MOBILE VENDORS AS THE LAST RESORT ALTERNATIVE FOR THE POOR

Mobile vendors serve a sizable part of the LIA population (10%). A mobile street vendor pushes a cart or bike to those areas, where no network is available, boreholes do not exist and tankers have no access due to road conditions or settlement patterns.

Mobile vendors are often the only form of water supply for those areas. As a group they often have the monopoly compared to other types of providers. Supplying water by using a pushcart is physically extremely demanding. Mobile vendors often have to go long ways from the source and to their customers. Also their howling capacity is limited to the size of the pushcart and the weight of the load – usually up to 120 liters per cart. As a consequence, the number of sales trips a mobile vendor can make per day is limited. All above-mentioned factors lead to the high tariff mobile vendors charge.

In addition to high tariffs, the quality of the water delivered by mobile vendors is assumingly low. While no empirical data on the water quality exists, many mobile vendors do not get their water from the public utility, but from ponds, rivers or streams. None of the mobile vendors interviewed in the baseline survey claimed to do any kind of testing or water treatment.

In sum, service delivery through mobile vendors not only comes at a high cost, but also poses a serious health concern for consumers. Approaches to improve service delivery should not attempt to formalize or regulate mobile vendors to the benefit of the population. Mobile vendors often take up businesses during the dry season and leave their pushcarts and look for other ways to generate income during the wet season. They are hard to track and their registration would be impossible to enforce.

Instead, pro-poor service delivery should focus on extending the public utility network, building water kiosks and formalize and monitor private boreholes and NGO/community/institutional schemes where those present suitable service providers. The best sector policy with regards to mobile vendors is to drive them out of the market.

4.5 NGO/COMMUNITY/INSTITUTIONAL SCHEMES AS NICHE SUPPLIERS

NGO/community/institutional schemes serve a total of 3% of the population in LIAs. They are similar in their technical setup to privately run boreholes as they usually consist of a borehole and more seldom of a small-scale network.

In contrast to private boreholes, they are legal under Tanzanian law, but are currently not subject to regulation by the regulatory authority. Hence, they usually set their own tariffs and usually decide for themselves whether to test and monitor the water and service quality or not. Experience in Tanzania shows that once a NGO hands responsibility of the operations over to the community, many schemes cannot hold previous service levels or fail all together.

Their similarity to private boreholes calls for a similar approach in the future. While they would not need to be licensed, a reliable service provision would require for EWURA and the local public utility to cooperate with the NGO/community/institutional schemes on implementing regular water quality monitoring and oversight over tariffs.
SUMMARY AND CONCLUSION – TOWARDS A DIFFERENTIATED PERSPECTIVE ON ISPs
In conclusion, while service provision to the Tanzanian population by a local, public utility would be preferable, it will take a considerable amount of time particularly for many LIAs to benefit from such a service. ISPs do currently provide services to the majority of the population and should be considered as a viable means to improve water-poverty for some parts of the population. A pragmatic approach is thus needed. Such an approach would go beyond the dichotomy of regulating ISPs or ignoring ISPs.

First and foremost, the empirical evidence shows that different types of ISPs run very different business models and provide services in very different ways, at varying quality and varying prices. In consequence, to formulate effective water sector policies ISPs cannot be treated as a general category, but – as this document shows - tailored approaches are needed for different types of ISPs. The debate about whether or not ISPs should be regulated always has to differentiate between the different types of ISPs and take the specific country situation into account.

In Tanzania, formalizing some types of ISPs (e.g. mobile vendors) would not benefit consumers or would most likely prove to be too expensive to enforce. Given their importance in service provision, regulating other types of ISPs, such as private boreholes and NGO/community/institutional schemes, may prove a more viable way to improve service provision particularly for households in LIAs as long as household connections supplied by a public utility are not available.