Organising authority: Municipality of Apalit, Pampanga Province, Central Luzon Region, Philippines.

Water operator: Apalit Waterworks, a subsidiary of Balibago Waterworks System Inc.

Location: Municipality of Apalit.

PPP description
Starting from a Memorandum of Agreement in 2003 to take over a pump and borehole provided by an NGO, Apalit Waterworks was able to develop the water system rapidly through coordination with barangays¹ in Apalit and neighbouring Macabebe. The aim was to develop additional boreholes, networks and customer management systems. Investment and operation are carried out by the company, which finances the works and operations mainly from revenue from customer charges. It now serves 103,000 people.

Context and PPP objectives
The Municipality of Apalit is situated in the eastern portion of the province of Pampanga in the Central Luzon Region of the Philippines. It has a total land area of approximately 6,147 hectares and it is composed of 12 barangays. As with many towns in the region, urban growth has been very rapid. Between 2000 and 2014 the population has grown by 78% and the number of households by 82%.

Prior to the involvement of Apalit Waterworks, the municipality was having difficulty providing water to its fast growing population, especially in outlying districts. The initial objective was to overcome this with a pilot project to show how a private company could improve the operation of the borehole and create a piped water network.

Subsequently, the services have been extended to the other barangays in Apalit and parts of the adjacent municipality of Macabebe.

Extending provision of water supply
Having been given the initial well and pump by the barangay of Tabuyoc (the farthest from the town centre), Apalit Waterworks started to install a network of PVC pipes and connect customers with meters. Since then the company has progressively extended its water services to other areas, installing new boreholes, pumps, backup generators, 3 elevated storage reservoirs and distribution networks to extend the service to parts of all 12 barangays in the municipality and 2 barangays in Macabebe.

The number of customers supplied in Apalit has increased from 150 at the end of 2003 to 12,919 in 2014. In Macabebe, the numbers served have risen from 258 in 2008 to 550 at present. This means that the overall coverage ratio has increased from 0.89% to 82% of Apalit Municipality and the 2 barangays served in Macabebe.

The number of pumps and boreholes has increased from 1 in 2003 to 11 in 2014 (includes the additional well in Barangay Sucad completed in November 2014), with more planned in 2015.

To ensure reliability, pumps have backup diesel generators, all procured and installed by Apalit Waterworks. In this way the water supply is assured on a 24/7 basis for all connected users.

The length of the networks has been extended from 0 in 2003 to 91 kilometers in 2014.

¹ Barangay is the smallest administrative unit in the Philippines
Extending water supply to un-served people
Ensuring water safety
Contributing to affordability of water services

The volume of water produced in 2013 reached 3,488,482 m³. Average consumption in December 2013 was 23 m³ per customer. The majority of customers are domestic households, but commercial customers are also supplied.

Water users that are not connected to the water networks mostly use shallow wells with cheap hand-pumps or small electrical pumps that are expensive to operate. In both cases, supplies are of dubious quality and are time consuming or costly to use.

Ensuring water safety

All the pumping stations are equipped with electronic chlorinators to ensure water safety. The water quality is tested and controlled for bacteriological and physical-chemical compliance with the Philippine National Standards for Drinking Water (PNSDW 1999). Copies of these tests are submitted to the National Water Resources Board (NWRB) and results show consistent compliance with PNSDW parameters.

When combined with the extension of the water network, the safety of the water supply for over 82% of the population of Apalit has been assured within almost 11 years.

Subsidies to domestic users

Customers are offered the opportunity to connect to the Apalit Waterworks network on a voluntary basis as the pipes become available. The connection charge is currently (2014) 2,760 Pesos for ½ inch (12 mm) domestic connection and 3,060 Pesos for a ½ inch (12 mm) commercial connection.

The tariffs are agreed between the Local Government Unit and Apalit Waterworks and then approved by the NWRB. The current water charges are set out in the table below. This shows that there is a cross-subsidy in place that enables commercial users to give some support to domestic customers.

Apalit Waterworks Tariffs 2014

<table>
<thead>
<tr>
<th>Category</th>
<th>Lower Consumption</th>
<th>Higher Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min: 1-10 m³</td>
<td>P 205.00</td>
<td></td>
</tr>
<tr>
<td>11-20 m³</td>
<td>P 21.30 /m³</td>
<td></td>
</tr>
<tr>
<td>21-30 m³</td>
<td>P 22.10 /m³</td>
<td></td>
</tr>
<tr>
<td>31-40 m³</td>
<td>P 23.00 /m³</td>
<td></td>
</tr>
<tr>
<td>Above 41 m³</td>
<td>P 24.20 /m³</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min: 1-10 m³</td>
<td>P 409.00</td>
<td></td>
</tr>
<tr>
<td>11-25 m³</td>
<td>P 40.90 /m³</td>
<td></td>
</tr>
<tr>
<td>Above 26 m³</td>
<td>P 44.20 /m³</td>
<td></td>
</tr>
</tbody>
</table>

Note: the average conversion rate Php – Euro for 2014 was 0.0170

Other significant improvements

It is notable that Apalit Waterworks has created 40 jobs directly (including 1 accountant and 1 assistant accountant). Its continuing pipe-laying, construction, repair and other activities likewise promote local employment. Also, as the company has developed, it has implemented appropriate modern technology such as data loggers, hydraulic modelling, geographic information systems and variable frequency drives. This has required it to expand the skills and competencies of its staff accordingly.

Moreover, aside from the increased productivity and improved sanitation it brings with its piped water, Apalit Waterworks has made a considerable contribution to the local economy through providing water to commercial and industrial activities and permitting the construction of new housing subdivisions.

“Apalit Waterworks has been the Municipality of Apalit’s partner in our pursuit to improve the quality of life in our town. It has been providing potable water to the Apalitenos. Challenges though are present and many areas for improvement are abundant but with the local government unit and Apalit Waterworks’ solid cooperation, the obstacles for continued success will be handled all for the common benefit of our townsfolk.” Mayor Oscar Tetangco Jr.