NWS's success at reducing NRW in a relatively short period of time demonstrates the power of an integrated approach that combines organizational culture change, outreach to and engagement of customers in solving problems and improving service quality, and the use of innovative and creative technological tools. NWS Jinja and Iganga has become a model for Uganda, the region, and the rest of Africa and the utility has hosted numerous delegations in the region, the use of QSP, coordinated with a government customer engagement approach, and introduced monitoring by an innovative engineering company resulting in globally significant reductions in NRW levels in Jinja and Iganga.

BEST PRACTICES AND LESSONS LEARNED

- Performance improvement programs formed from focused internal reflection were the key to improving staff and organizational performance.
- Increased awareness among customers provides transparency, improves infrastructure planning, and enriches service satisfaction.
- QSP provided the framework for motivating staff and cultivating their commitment to enhanced service delivery and increased productivity.
- Staff became more attentive to customers and were more willing to address their complaints.
- The WACOCO programs created enhanced awareness among customers for NWS’s programs, and its NRW issues.
- More disciplined and committed customers became great allies for reducing water theft and leakage.
- Although critical in identifying and addressing leaks and bursts in the water supply network, technological solutions must be combined with improved service delivery and increased customer satisfaction.

Figure 5: AMRs on domestic meters

Figure 6: WACOCO meeting in Bugera

Figure 7: Water Meter Analyses

Figure 8: Headers of the Night Patrol

Figure 9: Water mind analysers (WMAs) and programme.

Figure 10: Night patrol team.

Annex A: Case Study: Water Metering

Table 1: Comparison of WACOCO Performance

<table>
<thead>
<tr>
<th>Category</th>
<th>Before WACOCO</th>
<th>After WACOCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average response time</td>
<td>24 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td>Average number of visits</td>
<td>10 per day</td>
<td>20 per day</td>
</tr>
<tr>
<td>Average customer satisfaction</td>
<td>3.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

INTRODUCING INNOVATIVE ENGINEERING AND ICT SOLUTIONS

NWS also interacted with the public through other communication channels. The utility introduced a local radio program, through a popular station, that informed customers about NWS’s services, their customer obligations, and how to improve health and sanitation, as well as how communities can reduce NRW by reporting leaks, leaks and bursts assistance NWS, identify illegal connections. Twenty-four radio programs were aired and the feedback was overwhelmingly positive. NWS complemented these engagements with targeted visits and messaging to places of worship, schools, and mosques were engaged in their desire to conserve water by educating our youth. "Our staff are now more trained and we have learned that from QSIP, we have objectives to be achieved and we engage stakeholders in our work," Charles Okuonzi, NWSC Jinja and Iganga General Manager.

Between October 2014 and June 2017, NWS's success at reducing NRW in a relatively short period of time demonstrates the power of an integrated approach that combines organizational culture change, outreach to and engagement of customers in solving problems and improving service quality, and the use of innovative and creative technological tools. NWS Jinja and Iganga has become a model for Uganda, the region, and the rest of Africa and the utility has hosted numerous delegations in the region, the use of QSP, coordinated with a government customer engagement approach, and introduced monitoring by an innovative engineering company resulting in globally significant reductions in NRW levels in Jinja and Iganga.
Water utilities within the region are straining for additional revenue to expand services. In some cases, water is rationed or made unsafe to drink. It is also being consumed by illegal activities. It is necessary to be forthcoming in the near future to increase costs of water so that the price of water will not be too expensive for the average income group. Water will be less wasted while much is being wasted. The NRW problem is likely to be different in regions as income levels rise. In the East African region, the average NRW figures by country are: Rwanda 47%, Burundi 44%, Tanzania 36%, Uganda 55%, Kenya 44%, and Kenya 44%. Conservatively, the NRW in the East Africa region therefore stands at 41%. The NRW in the East African region therefore stands at 41%.

37%.

In the East African region, the average NRW figures by country are: Rwanda 47%, Burundi 44%, Tanzania 36%, Uganda 55%, Kenya 44%.