

Reducing vandalism: experience from Zambia's Copperbelt

Water and sanitation utilities commonly experience vandalism and theft of their property. This Practice Note describes experience from the Copperbelt region of Zambia, where Nkana Water and Sewerage Company (NWSC) are tackling the issue through a three-pronged, integrated approach of improving customer and utility relations, increasing the community's sense of ownership, and strengthening law enforcement.



Anti-vandalism flyer distributed to customers by NWSC

How does vandalism affect water and sanitation utilities?

Vandalism and theft of infrastructure is a worldwide, multi-sector issue that can undermine a service provider's financial viability. Water utilities are especially vulnerable to vandalism and the theft of pipes and fittings and to water theft through bypassing of meters and tampering with pipes to make illegal connections. The negative impacts include higher operation and maintenance costs for the utility, higher non-revenue water, and reduced customer satisfaction as a result of service interruptions and tariff increases to cover costs, often leading to refusal to pay. Sanitation facilities can also be affected through theft and damage inflicted upon wastewater treatment plants and public or communal toilet blocks.

Vandalism in Zambia's Copperbelt: a major problem

Nkana Water and Sewerage Company (NWSC) is one example of a utility devising their own strategy to counter vandalism, in work executed under the Copperbelt Water Operator Partnership led by Vitens Evidé International. Vandalism has been a prominent issue for utilities in the Copperbelt for many years: in the 2001 Kitwe Water Supply Rehabilitation project, 70% of the 2,480 brass yard-taps installed were vandalised within one year of project completion; in a 2010 baseline study for the Nkana Water Supply and Sanitation Project, 80% of households reported that vandalism and theft was widespread; and in Kitwe's Wusakili neighbourhood, the removal of communal toilet fixtures, fittings, doors and roofing materials made it necessary to demolish some toilet blocks. Aware of the financial cost to the utility – including NRW of 42% – and of the negative impact on customer service, NWSC developed focused interventions to address the problem.

A first step: understanding the motives behind vandalism

To counter vandalism it is vital to understand what is driving the behaviour. For example, acts of vandalism are often motivated by the desire to acquire a resource, but people may also be expressing anger or trying to draw attention to a cause. Through internal discussions NWSC identified a combination of recurring problems and individual flashpoints that had contributed to local acts of vandalism. They included users removing taps or meters to find water at times of poor supply; false expectations created by the premature launch of a sanitation project; a perceived lack of community ownership in the design of sanitation facilities; and the utility failing to communicate the reasons for installing meters on yard-taps.

Having identified the causes, NWSC developed a three-pronged approach to reducing vandalism, consolidated over time as their understanding of the issues continued to grow; this approach is detailed on the next page.

NWSC's three-pronged approach to reducing vandalism



NWSC Head of Security with
Chair person of Crime Prevention
after the arrest of Vandals

Next steps: Improved monitoring and reporting -
Data collected so far supports the efficacy of NWSC's approach: in a recent 'toilet handover' household survey in Buchi Kamitondo only 43 vandalism events were reported (less than 2% of the 2,257 toilets constructed), a vast improvement on previous projects. Whilst this survey is a useful indicator, NWSC recognise that the lack of more nuanced data presents a barrier to further progress: with support from WSUP the utility is now developing a tool to capture all vandalism events, including information on their severity and likely motives.

1. Improving customer and utility (NWSC) relations

A key to improving customer relations has been the joint implementation of a hygiene education programme by NWSC and the Ministry of Health (MoH). NWSC trained a Neighbourhood Health Committee – including staff from the local health clinic – to conduct house-to-house visits promoting improved WASH behaviours, and to arrange theatre groups to perform at community events; the Committee also distributed information on how to maintain facilities and on the negative effects of vandalism. This visible and close working relationship with the MoH helped to change the perceptions that many customers had of the utility, which is now understood to have a genuine concern for the health and well-being of the local population. These gains were strengthened when NWSC invited respected members of the community to visit the water and sewage treatment works, enabling these influential visitors to appreciate for themselves what is required to supply potable water and to treat waste water.

2. Increasing household ownership of infrastructure

In order to increase the sense of ownership of subsidy-supported household toilets, NWSC introduced a requirement for each household to contribute 10% of capital costs (ZMW 5,000, around US\$100). NWSC records indicate that households are willing and able to contribute: 1,540 household contributions have been received, and 72% of the households with built toilets have paid their contribution in full. NWSC agreed that the contribution can be made in staged payments over a period of ten months, easing the strain on a household's cash flow. Mwangala Chiwala (Community Mobilisation and Sensitisation Specialist, NWSC) identifies this intervention as being "one of the main lessons learnt by NWSC from its earlier projects, when people vandalised infrastructure that had been given to them completely free of charge".

3. Strengthening law enforcement

Though vandalism of water and sanitation infrastructure had been common for many years in Kitwe, no arrests, charges or prosecutions had ever been made against the perpetrators. Resulting from NWSC's efforts there is now a much improved system with three key elements:

- An **NWSC Inspector** trained in prosecution procedures at the National Institute of Public Administration (NIPA). The inspector has trained the local police force and helped NWSC to interpret laws and to prepare prosecutions that have led to successful convictions.
- An **Inspectorate Team** within the utility, reporting to the Chief Security Officer under the Human Resources Directorate. The Inspectorate Team conducts regular field inspections to detect vandalism and follows up reported cases with the police.
- A **Neighbourhood Watch Committee** (NWC) comprised of local residents with a mandate to look at issues of security in the local area. The Committee reports to the NWSC Inspectorate Team.

Conclusion

Although the approach developed by NWSC is still evolving, there is already clear evidence that the interventions are having a positive effect. The identification of motivations behind local acts of vandalism has been a key step forward, enabling the utility to design targeted intervention strategies, to strengthen their relationship with the community (their customer base), and to develop strong working relationships with stakeholders including the Ministry of Health, the local police and staff of neighbouring utilities. Based on this experience WSUP recommends that utilities should devise contextually specific approaches to reduce vandalism: the approach now being piloted in the Copperbelt provides a helpful starting point.

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