

INFORMATION AND COMMUNICATION TECHNOLOGY: BOOSTING INTEGRITY?

'We are not even at the tip of understanding the full potential of technology.'

Jaehyang So, ex-manager of the World Bank's WSP (Schouten, 2013)

In sub-Saharan Africa, more people have access to mobile phones than to improved water sources, which still do not reach 319 million people (UNICEF and WHO, 2015). It is not hard to see, therefore, why information and communication technologies are increasingly being used as a tool to support water governance (Schouten, 2013). In relation to the water sector in particular, it is mobile phones that are the fastest-growing and most useful technology that improves the flow of data (Schouten, 2013).

Used and introduced properly, ICTs can increase transparency, accountability and civil participation and reduce corruption. They can also hold decision-makers to account, as well as enabling governments to communicate with their citizens.

Methods include real-time data reporting; open data portals (Davies and Fumega, 2014); using technology to eliminate the agents or the need for cash and to make customer feedback participatory; and e-procurements and mobile technologies (Grönlund et al., 2010).

In Africa at least, corruption in the administration of payment systems is a major source of corruption (Plummer and Cross, 2006). Too often, payment for services is informal, and this makes it possible to fake meter readings, give preferential treatment in

return for a bribe and engage in other activities that constitute water theft and lead to financial losses (Davis, 2003).

ICTs can contribute to the ability of water sector institutions and regulators to monitor both performance and potential areas for corruption, including making payments more efficient and corruption-proof, thus enhancing both service quality and provision. They can be used in various contexts, as the following examples show.

- + The city of Metro Manila in the Philippines uses a map-based information system to monitor service performance and customer complaints, leading to more coordinated repairs of pipe breaks and better tracking by the regulator (Cook and Stevens, 2002).
- + In Timor Leste a Water and Sanitation Information System monitors rural water and sanitation services at national, district and sub-district levels. Information collection is facilitated via SMS mobile technology to enable WASH facilitators to collect data, fill digital forms, store information and transmit the information by SMS to a central national database, which is regularly updated and the information made openly available to all (Pearce et al., 2015).
- + Akvo FLOW is an ICT tool for collecting, evaluating and displaying any quantity of geographically referenced data using smartphones and an online dashboard. It is used in the water sector in different countries (Akvo, 2012). In Liberia, for instance, it was used to complete surveys that monitored water points in urban and rural areas. Data was submitted directly to the web-based dashboard for data management and analysis. In Malawi, it enabled the collection of data from over 2,000 water points (Nhlema and Harawa, 2015).
- + In 2009 in Dar es Salaam, Tanzania, the Water and Sewerage Corporation (DAWASCO) introduced mobile communication technologies for the billing and payment of water. This meant that, instead of manually

entering transaction data into the billing system, an automatic update is generated. This has led to a reduction in the incidence of petty corruption and promoted improved financial management by making transaction data more transparent (Krolikowski, 2014).

- + The Open Government Partnership was launched in 2011 to provide an international platform for domestic reformers committed to making their governments more open, accountable and responsive to citizens. To date 66 countries have signed up to create, together with their citizens, National Action Plans, which include technological innovation.¹ In addition, a range of initiatives to enhance transparency in fiscal spending have become a key tool to track budget allocations and expenditure, such as Open UN-Habitat and the Open Budgets Portal from the World Bank, to name but two. Specific water-related web interfaces on the fiscal spending of national governments, donors and organizations in the water sector are still rare. One example is the International Aid Transparency Initiative, which enables signatories to publicize planned financial spending in a specific country, sector or region. The Kenya Open Data Portal enables such fiscal tracking of expenditure in the water sector.²

THE CHALLENGES OF USING ICTS TO COMBAT CORRUPTION

However, in practice there are a number of challenges in the use of ICTs to improve governance. They are a tool for rather than the solution to fighting corruption. In addition, making use of ICTs in this way is not always easy. For example, information is often not detailed enough for misconduct to be easily spotted, which makes it difficult for citizens and the media to recognize when something is corrupt (Davies and Fumega, 2014). Moreover, with many of the online platforms it is impossible to design data visualizations. To make the information easy to compare they require constant maintenance, and often they are not linked to other databases and sources. Additionally, information can be manipulated to influence decision-making, and data collection still relies on the accountability and transparency of the people who manage the information systems. One of the key challenges, says Muthi Nhlema from Water for People, is not the lack of appropriate technology but, rather, people's lack of capacity to read the story behind the data (Nhlema and Harawa, 2015). If ICTs are truly to help address integrity in the water sector and elsewhere, they must be used as part of broader policy and governance frameworks and go hand in hand with changes in people, processes and institutions (Pearce et al., 2015).

¹ Open Government Partnership: www.opengovpartnership.org.

² Kenya Open Data Portal: <https://opendata.go.ke>.