What has changed?
The town of Lodwar is the driest spot in the arid county of Turkana in northwest Kenya, with rainfall of just 210mm a year. Getting water to the town’s 100,000 residents is the responsibility of a private utility, the Lodwar Water and Sanitation Company (LOWASCO), and has long been a problem.

‘We were getting water once in a while from a local water point,’ says Regina Aemun, 30, who lives in Nakwamekwi with her husband, two children aged 3 and 7, and six other relatives. ‘It wasn’t once a day - more like once a week. So we often had to go to the river to collect water.’

Lodwar’s position on the river Turkwel, a river that flows all year round, regulated by a dam, should mean that residents can access water despite the lack of rainfall in the area. But inadequate infrastructure, resourcing and investment, combined with LOWASCO’s limited capacity, meant that historically this hasn’t been the case.

‘In the past, we would complain to LOWASCO,’ says Regina. ‘They told us there wasn’t enough water to pump to everyone.’

Now, however, like many other Lodwar residents, Regina is receiving clean, safe water directly to her home. An estimated 30,000 people, possibly more, are thought to be enjoying similarly improved access. ‘Now, we don’t have to go far for water,’ Regina says.

How has the change been achieved?
Under the SWIFT programme, Oxfam has been partnering with LOWASCO to address the need for an improved water supply to Lodwar. It drilled a high-yielding borehole in Nabulon and connected it to an elevated steel storage tank via a 2.2km pipeline which supplies the town.

It erected solar panels able to generate 46KW – one of the biggest solar pumping systems in Kenya – and the borehole is now supplying water at a rate of 16 litres per second, or 60 cubic metres an hour.

Oxfam has also brought online two more boreholes, in Nabulon and Nakwamekwi, equipping them with solar systems and connecting them to Lodwar’s distribution network, into which they are pumping water at a rate of 24 cubic metres an hour and 10 cubic metres an hour respectively.

Together, these three boreholes have increased the volume of water supplied to Lodwar by more than 50 per cent. Each source pumps to a reservoir serving a particular neighbourhood, but surplus water from one zone can be used to meet needs in another.
Why does it matter?
In addition to the obvious health benefits of enjoying improved access to safe water, Regina describes how the time she now saves through not having to make the journey to the river has had a number of positive impacts on her family.

‘Now I have more time to do jobs around the house, and for my business,’ she says. ‘I fry fish to sell. Business has improved because of water, and I have more money and food for the family. With the amount of water we now have, we can bathe at any time.’

Regina allows her neighbours who don’t have their own connections to access water from her home when they need it. ‘Now I can leave home and know everyone can get water if they want,’ she says.

What are the challenges?
LOWASCO faces many challenges in supplying water to Lodwar. The population of the town has grown significantly, which meant demand for water far outstripped the amount that could be supplied by existing boreholes. The utility also lacked resources and storage space, as well as technical knowledge and capacity, and wasn’t even sure where the pipelines were.

Operating costs were high, because of the cost of pumping water using electricity and diesel, and were not covered by the revenue LOWASCO was receiving from the water it supplied.

‘The National Water Regulator sets the tariff and it is too low, but because we couldn’t supply water regularly, people were unwilling to pay,’ explains LOWASCO’s technical services manager, Emmanuel Epat Echapan. ‘Often there is no power, so when there is water we can’t always supply it because there is no electricity.’

How will the challenges be met and what makes this change sustainable?
When the SWIFT programme began, the first thing Oxfam and LOWASCO did was to map the water supply to the town, so that the utility can see the pipelines and coverage, and identify where extensions are needed. This has enabled LOWASCO to put together proposals much more easily to attract the resources required.

‘Now we are getting some support from the Water Services Trust Fund to help us with a pipeline and storage tank,’ says Emmanuel. ‘We wouldn’t have been able to attract this funding without the mapping.’

“Business has improved because of water, and I have more money and food for the family”

To address the issue of high running costs from pumping water using electricity and diesel, Oxfam has installed solar-powered pumping systems which mean LOWASCO should become self-sufficient in terms of energy.

‘We will be able to make money from the solar power that will go into supporting other areas, and we can reach more people,’ says Emmanuel.

Together with the fact that Oxfam has brought online three additional boreholes, to add to the six already functioning, this means that Lodwar residents are now receiving an adequate, reliable supply of water, and as a result, are willing to pay for it, making the system sustainable in future.

‘I pay 500-600 Kenyan shillings per month. Previously we didn’t pay, because there was no water,’ says Regina.

Emmanuel is confident that ‘the impact is now being seen and felt across the board.’

‘The population is accepting that we are doing something, and we are doing our best,’ he says. ‘The result is that people are now prepared to pay for water.’

Oxfam will continue working with LOWASCO to increase its efficiency and management capacity until March 2018.

Stories and photos collected by Jane Beesley, freelance humanitarian communications specialist, and edited by Emma Feeny (Oxfam).