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**ENSURING AVAILABILITY AND SUSTAINABLE MANAGEMENT  
OF WATER AND SANITATION FOR ALL**

**Low resource innovations for sustaining service delivery:  
examples from districts in Malawi**

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*Low-income countries have less funds to allocate for water, sanitation & hygiene (WASH) services, but those funds which are available should still be used to have the greatest service delivery reach possible. This paper shares examples from several District Water Development Offices in Malawi of innovations developed to sustain service delivery with the limited resources they do have. These approaches include using available funds to pay for lower-cost alternatives which achieve their objectives, using other networks existing in communities to increase their reach, and leveraging other sets of resources that exist in the area.*

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**Low resource environments in WASH**

Low-income countries have less funds to allocate between many competing and important priorities, including water, sanitation & hygiene (WASH) services. In Malawi, District Water Development Offices (DWDOs) are the local government offices responsible for WASH service delivery in rural communities (McNicholl & Byrns, 2014). These offices are also severely underfunded (Lockwood & Kang, 2012), receiving on average 3,428,571 MWK (equivalent to about \$700 USD) per month (Government of Malawi, 2014) to support an average of 500,000 people (World Bank, 2016).

While these amounts may seem woefully inadequate, it is still more than nothing. Service providers and supporting development partners (DPs) can take action beyond, at worst, hand-wringing, and at best, advocating for more funds to be made available from already-stretched country budgets: they can ensure existing resources are used to have the greatest service delivery reach possible.

Since 2006, Engineers Without Borders Canada (EWB) has been working with private, public, and DP stakeholders in the WASH sector in Malawi. Over this period, EWB has gained particular expertise in supporting district government offices to improve their service delivery capabilities, without EWB providing any funds to the sector. In this way, EWB facilitates District Water Development Offices to work within their existing resource constraints, by not artificially and temporarily altering the flow of resources into those offices. This paper shares examples from several District Water Development Offices in Malawi of innovations developed to sustain service delivery with the limited resources they do have.

**Working within resource constraints**

**Purchasing different materials**

One way to work with constrained resources is to use the available funds to pay for lower-cost alternatives which achieve the same objectives:

- In Malawi's Nkhata Bay district, the fuel budget for extension staff to attend Area Development Committee meetings was only sufficient to be able to attend 4 out of the 14 meetings scheduled each month. EWB staff facilitated a review of this practice, and uncovered that if public transportation was used by extension staff in those areas where it was available, they could attend all 14 meetings. Now, the District Water Development Office budgets for public transportation when possible rather than buying fuel.

- In Nkhonkhotakota district, the District Water Development Office struggled to have enough resources to print data collection forms for routine monitoring of water point functionality. Instead, they have started buying cheap school exercise notebooks, and writing data into these, copying the questions over from the previous page each month.
- In Karonga district, the District Water Development Office changed its approach to engaging with local hand pump mechanics: rather than budgeting for fuel to meet, they adopted an approach of budgeting for phone credit to contact the hand pump mechanics. They can then prioritize fuel for travel only to those mechanics requiring further support.

By changing how the limited operational budgets of District Water Development Offices are spent, greater service delivery support can be provided even with constrained resources.

### **Tapping into existing networks**

Another way to stretch limited resources is to use other networks existing in communities to increase the reach of the service delivery institution:

- In Machinga district, the 14 Area Development Committees, traditional structures with representatives from every group village in the Traditional Authority area, are being used by the District Water Development Office as a network to increase the reach of the government office. With EWB's support, the district negotiated a memorandum of understanding (MoU) with each Area Development Committee to have them receive monthly reports from the hand pump mechanics in that area. The Committee then passes this information to the District Water Development Office, which can then spend its resources towards any hand pump mechanics requiring assistance.
- Also in Machinga district, the same Area Development Committees are being used to leverage the network of government extension workers from other sectors to support water point monitoring. This enables them to get around the constraint of having limited extension workers for the WASH sector. The Area Development Committees pass information requests from the District Water Development Office to extension workers from the Health, Community Development, and other sectors, who collect the additional information as part of their already-planned visits to those communities.
- In Thyolo district, the District Water Development Office has set up an agreement with the network of Health sector extension workers, who are present in nearly every community in the district. These Health sector extension workers collect reports from hand pump mechanics in their communities and pass these on to the District Water Development Office, which can then focus its resources on supporting those mechanics who require assistance.

By using other traditional and government networks already present across an area as information gathering or dissemination mechanisms, the limited resources of the District Water Development Offices can be focused on other service delivery support tasks.

### **Using other resource systems**

A third way to adapt to a resource-constrained environment is to leverage other sets of resources that exist in the area:

- Chitipa district, at the northern-most point of Malawi, decided to face the issue of resource constraints with an approach of extreme transparency. With facilitation support from EWB, the District Water Development Office explained the situation of the severe resource constraints they faced, and clarified that they simply were not able to reach most communities requiring assistance with WASH services unless those communities could meet their responsibilities of financing water point repair costs. Following these meetings, three different communities fundraised amounts between 5,000 and 10,000 MWK (at the time, equivalent to 14 to 28 USD) to enable District staff to travel to their communities to support their local hand pump mechanics in three complex repairs. With an understanding of the resource constraints of government, communities were able to tap into their local resourcing systems for issues they considered important.
- In Rumphi district, the District Water Development Office had used its own resources to set up a successful pilot of reinforcing principles of community-based management through the Area Development Committees, with two of the districts' 12 Area Development Committees. Eager to expand this to other areas, but lacking the resources, the District Water Development Office leveraged planned trips funded by an NGO working in the district, sending some of their own staff along in the vehicles to

introduce this idea to three additional Area Development Committees. In this way, they piggybacked off the NGO's resources instead of needing to finance the travel themselves.

By recognizing opportunities to leverage other sources of funds or in-kind support, District Water Development Offices can extend the reach of their service delivery support.

## Recommendations

Searching for creative alternatives to typical spending patterns might uncover non-traditional methods, which, with careful planning and budgeting, can significantly improve service delivery reach:

- Low resource environments are a reality of low-income countries, and call for creative approaches for working within these resource constraints.
- Working within resource constraints is not only necessary, but as several examples from innovative approaches used by District Water Development Offices across Malawi demonstrate, is very possible!
- Working within resource constraints can take several forms, including changing purchasing behaviour, tapping into other existing networks, and leveraging other resourcing systems

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## References

- GOVERNMENT OF MALAWI (2014) *Malawi Government Budget 2014/15*. Government of Malawi: Lilongwe, Malawi.
- LOCKWOOD, H. and KANG, M. (2012) *Closing the gap: WASH sector devolution and decentralisation in Malawi*. Triple-S: The Hague, Netherlands.
- MCNICHOLL, D. and BYRNS, S. (2014) *Modelling pump functionality with a Markov process: insights and implications from Malawi*. WEDC: Loughborough, UK.
- WORLD BANK (2016) *Data: Rural Population*. Accessed online from <http://data.worldbank.org/indicator/SP.RUR.TOTL> on February 15, 2016.

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