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# SUSTAINABLE WATER AND SANITATION SERVICES FOR ALL IN A FAST CHANGING WORLD

# Short-term learning for long-term impact: lessons on project design from Malawi

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The complex work of sustainable development is one that benefits from applying "lessons learned" from previous experience in similar contexts. The paradox of requiring quick learning about long-term impacts can be partially resolved by co-interpretation with project partners on how a project's impacts are expected to proceed over time, and how the project has helped and hindered sustained service delivery. In 2013, the African Development Bank (AfDB) and Engineers Without Borders Canada (EWB) used this idea to study the anticipated impacts of a past AfDB supported project in Malawi's water, sanitation and hygiene (WASH) sector, to inform the design of a new project to be supported by AfDB. This paper describes this innovative approach to impact assessment, as well as key lessons from this study, on using decentralised structures, investing in capacity building, and building sustaining community level institutions.

## Applying project learning to project design

The practice of reviewing "lessons learned" and applying these to new undertakings in the development sector is well established. The complex work of development is not one which has universal solutions to simply replicate, and active cultures of critical reflection and learning are key to doing good work. In a project-based paradigm, however, it is not always easy to balance the need for long-term evaluations of impacts against the more immediate needs for informing new undertakings: a way to learn more quickly and have implementable recommendations for moving forward is needed. This is particularly challenging, seeing as how this evaluative learning needs to cover more than just the success of a project in terms of immediate implementation – it must extend to the sustainability of the infrastructure systems, to the behaviour change in communities, and to the ongoing management capacity of responsible institutions. In effect, a paradox is presented, where development work requires quick learning about long-term impacts.

In Malawi, developing sustained delivery of WASH services to reach Malawi's largely rural population remains a challenge. In spite of significant gains towards achieving Millennium Development Goal (MDG) targets, in large part due to donor-funded investments, the sustainability of these gains remains poor with water point functionality stuck around 75%, and low success rates of sanitation interventions (Government of Malawi, 2014). Recognizing this challenge, many development partners<sup>1</sup> (DPs) design infrastructure investments with complementary initiatives aimed to improve the sustainability of project benefits. However, evaluation cycles required to close projects and develop new ones do not address the long-term evaluations of impacts needed to measure the effects of the sustainability-focused initiatives within projects.

One approach attempted to overcome this was to have conversations with stakeholders about the anticipated long-term impacts of a project, on the shorter timeframe needed for relevance to new project design. In 2013, the African Development Bank (AfDB) and Engineers Without Borders Canada (EWB) studied the anticipated impacts of past AfDB supported projects in Malawi's water, sanitation, and hygiene (WASH) sector, to inform the design of a new project to be supported by AfDB. This paper describes this innovative approach to impact assessment, as well as key lessons from this study.

#### A method for short-term assessment of long-term impact

At the end of 2013, AfDB was seeking to design a follow up project on a program wrapping up in December, called the National Water Development Program (NWDP). The new project, called Sustainable Rural Water and Sanitation Infrastructure for Improved Health and Livelihoods, would target new areas of the country with similar water infrastructure construction and sanitation interventions as had been undertaken with NWDP. As NWDP was completing its final six months while the new project was to be created, use of traditional "lessons learned" from the first project would have restricted learning to aspects that had already been completed, and to implementation-focused learning rather than considering long-term sustainable impacts. As a work-around, techniques to anticipate long-term impacts and extract lessons learned were applied.

# Field approach

Two field studies were undertaken to gather information on long-term impacts of the AfDB supported project, as input to new project design. To quickly gather preliminary insights, a week-long study tour was undertaken by an EWB staff to Mulanje, one of the project districts. The EWB staff engaged with Mulanje's District Water Office, as well as contractors and consultants working on the project, through semi-structured interviews and observation of implementation to capture recommendations on how the AfDB supported project could be designed and executed to strengthen long-term service delivery.

This was complemented by a more in-depth study on the impacts of the AfDB supported project undertaken by an EWB staff stationed in Machinga, another project district, for three months. From their stationed position in the district, the EWB staff participated in project activities and held formal and informal interviews with District staff, and contractors and consultants working on the project. More time for active observation enabled the EWB staff to ask more specific questions about the anticipated long-term impacts of the project's methods of work, and to capture more nuanced perspectives on what could be improved. The staff was also able to develop some of their own recommendations from observations, and discuss these with those involved in the project.

In both cases, the intention of the studies was to assess the project, and not the district. To encourage open contributions without fear of repercussions, this premise was clearly explained to participants, and the outputs were confirmed with them before sharing with AfDB.

#### Framing and findings

The studies used a basic framework of what is needed for sustained service delivery, including particularly the supporting roles that need to be played, and focused on how the project either helped or hindered development for playing these roles. The co-interpretation technique allowed a reasonable confidence in the extrapolation of long-term impacts of an ongoing project. This was particularly strengthened by the experience of district staff in seeing numerous projects come and go over years or even decades.

The approach resulted in a number of recommendations to AfDB on how the design of new projects could enhance the abilities of those with long-term service delivery responsibilities to develop in their roles. EWB and AfDB together prioritized those recommendations, focusing on practicality rather than an extensive wish-list: the recommendations which represented the highest opportunity for impact, and which were also feasible to support within AfDB's institutional structures and approaches, were taken forward as focus objectives. This prioritization framework is illustrated in Figure 1. The studies and associated recommendations resulted in the incorporation of a number of changes into the AfDB's new supported project, valued around \$36 million, which is slated to commence its implementation in July 2014. Some of these findings and associated changes are detailed below.

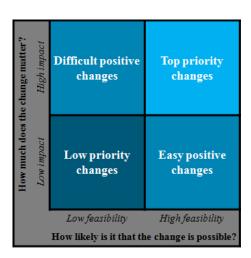


Figure 1. Prioritizing recommendations to incorporate into project design

#### **Lessons from short-term impact assessment**

Three key lessons which AfDB decided to incorporate into the design of the new supported WASH project are presented below. These are highlighted particularly to demonstrate some different types of recommendations which could be obtained from this assessment approach of extrapolating long-term impacts with project implementers on a shorter evaluation timeline.

#### Improving use of decentralised structures

Malawi's Decentralisation Policy assigns district governments responsibility for the management, maintenance, and oversight of WASH services (Government of Malawi, 2010), and, in response, DPs typically support the involvement of district governments in project implementation. The assessment of the AfDB supported project found that higher involvement of these decentralised offices provided valuable local knowledge and increased efficiency of implementation, with an added benefit of strengthening the ability of the district to follow up on project-related issues after completion and ensure sustainability.

# Using local knowledge

In Mulanje District, project consultants attempted to apply a demand-driven approach for borehole allocations, but struggled because they lacked history and local knowledge of the communities, leading to questions which set false expectations of the infrastructure that could be provided, and incomplete distribution of application forms across the district. Involving district staff, with better understanding of community interests and the geography of the area, could have avoided these issues. In contrast, project consultants in Machinga District asked district government staff to identify the communities to be considered for construction of boreholes. This meant that district priorities based on local knowledge and field realities determined borehole allocations, and also reinforced the role of the district government in managing WASH services. In the new AfDB supported project, district government will have a greater role in planning, coordinating, and executing project activities, facilitating adaptation to the local context by drawing on the experience and expertise of district staff. Districts will be supported with financing and technical back stopping from central government in the implementation of the project activities.

#### Implementing efficiently

Funds for the previous AfDB supported project were managed entirely at the national level. Consultants and districts submitted itemized budgets to the project management unit, who then attempted to send an employee to attend every project activity, some as far as 400km away, and distribute cash. This was inefficient, resulting in delays to community activities to accommodate the availability of the cash delivery person, and the diversion of considerable project funding to pay allowances and transportation costs for the paying staff and their driver as they travelled to the four project districts delivering cash. In addition to the

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high risk related to moving with hard cash over long distances, it also further entrenched the perception that district governments may be unable to manage resources, rather than allowing them to manage a portion of funds with the support needed to ensure responsible financial practices. The new AfDB supported project will make use of existing financial management systems and structures at district level, transferring funds for project activities to districts on an imprest<sup>2</sup> system, which will increase the probability of efficient project implementation.

#### Investing in capacity building

The capacity of local government has been recognized as a main factor affecting sustainability (Lockwood and Smits, 2011). This, combined with aid effectiveness principles of supporting governments in formulating and implementing development using local systems (OECD, 2008), creates an incentive for donors to ensure their projects build the capacity of governments in addition to regular infrastructure and service supports. The assessment of the AfDB supported project found certain capacity building investments had lacked permanence and application, and also uncovered an opportunity to build institutional capacity at the national level.

#### Learning through experience

In the previous AfDB supported project, capacity building efforts focused on trainings for district staff on topics such as facilitation, planning, and procurement. However, these trainings often took place after the district could have had the opportunity to apply the skills learned to the project activities. Furthermore, the approach to the capacity building lacked experiential components, such as hands-on involvement in certain aspects of the project. This could have improved performance and efficiency of the project, had the sequencing with project activities been properly aligned. The new AfDB supported project will have capacity building as technical assistance to develop skills in areas where government will be responsible for implementing, creating experiential capacity building, benefitting both the project and future undertakings. An additional form of capacity building, through the hiring of extension staff to alleviate high vacancy rates in project areas, will also be done differently. Whereas in the previous project, the government had hired extension staff on temporary contracts, the new project will have them hired through the formal and permanent government channels. This will ensure that the capacity of these staff and the experience they have gained is retained even after the completion of the project, to continue to support service delivery beyond the project timeframe. Building sustained and practical capacity in local government should result in improved service delivery over time and improved implementation of future projects.

#### **Building national institutions**

Implementation and oversight of the previous AfDB supported project was handled by a project implementation unit (PIU), at arm's length from government. Following a government ban against new PIUs for projects, AfDB and the Ministry of Water Development and Irrigation agreed that the new project should be overseen by a project coordination team constituted within the Ministry. It was noted that this would be an important opportunity for a major donor supported project to be implemented by the Ministry, providing a mid-step for the Ministry to learn through experience how to manage large projects as the sector moves towards a fully-fledged sector-wide approach (SWAp) where government will lead all donor-financed development in the sector. This step, though not easy or entirely comfortable for either AfDB or the Ministry, was further highlighted as important by the caution of AfDB in assigning this role to MoWDI as they had always previously relied on these temporary PIUs and had not gained capacity in areas such as project procurement because of this. Circular arguments of lack of capacity such as these can only be broken by someone taking a first step, which this new project will do. By investing in national-level processes, the new AfDB supported project will lead important developments to institutional capacity.

#### **Establishing community institutions**

In each of the past five years, Malawi's WASH sector has agreed on an undertaking to reduce non-functionality by 5%. Disappointingly, the Sector Performance Report presented at the annual Joint Sector Review does not show any progress towards this target (Government of Malawi, 2014). Malawi promotes an approach of community-based management (CBM), empowering local committees to own and sustain their own water systems (Government of Malawi, 1999), however evidence of continuing low functionality rates suggests a need for another methodology. Based on success seen with Water Users Associations (WUAs) in peri-urban areas, the AfDB supported project is adjusting this approach to rural gravity-fed schemes (GFS).

Assessing how this approach was applied in the previous AfDB supported project highlighted the need to constitute WUA structures earlier in the project timeline to allow for mentoring time, as well as to continue experimenting with incentivised ownership models.

#### **Building responsible communities**

In each of the previous four project districts, WUAs were constituted very late in the project, and some were trained even in the last month before the project closed. While the project had intended to incorporate a mentoring period after construction works had been completed, delays in construction shortened the time available for mentoring considerably. This very short period of support, raised concerns about how the WUA would be able to continue managing a system they had just been introduced to. If the election of the WUA Board of Trustees had happened before construction was complete, these trustees could have had more time to receive mentoring in their new role, and possibly even been involved in construction and rehabilitation works. In the new AfDB supported project, support will be continued to the WUAs established under the previous project, to ensure they gain the mentoring and experience needed to meet their responsibilities. In the new project districts, WUAs will be constituted as early as possible, and will receive mentoring throughout the project. This increased support over a longer timeline will better enable WUA trustees to gain the skills crucial to managing and sustaining this infrastructure and the water services it provides over the long term.

#### Incentivising community based management

The constitution of WUAs in the peri-urban areas where the model was first found to be successful was done with considerable incentives to the WUA members. Allowances were paid for managing the scheme and kiosks in each area, using funds collected through the sale of water at the communal kiosks on a per bucket basis. In the previous project's adaptation of the WUA structure to rural areas, each WUA was constituted through election of a board of trustees, who are also incentivised, using funds from flat perhousehold monthly rates for access to the taps. To further support the collection of funds from households, in AfDB's new project, increased attention will be focused on government communicating that communities in rural areas must contribute to economic costs of providing safe water. It is anticipated that due to widespread understanding that water is largely a social good, this messaging will take time to be incorporated into how rural people view water services. However, when combined with sustained and incentivized ownership by the WUA, it is expected to be possible within the applicable timeframes.

# Designing projects for long-term impact evaluations

As a complement to the lessons learnt from the short-term impact assessment, AfDB's new supported project will also include an impact evaluation of the previous project. Funds have been budgeted in the final year of the new project to conduct an impact of the previous project, which will be five years after its conclusion. It is expected that the impact evaluation will yield interesting results which could be deployed by the Government of Malawi and DPs including AfDB in further engagements with the WASH sector. The impact evaluation will evaluate the achievements of the previous project measured against the outcomes projected at project design. This impact evaluation acknowledges the time it takes for the long-term impacts of interventions to be felt and seen, and will review the long-term benefits to the target population, providing an important perspective on actual, as opposed to anticipated, impacts.

#### Recommendations for others designing projects

Based on the experience of AfDB and EWB in designing a new WASH project with Malawi's Ministry of Water Development and Irrigation, the following ideas are recommended to others designing projects:

- To resolve the paradox of development work requiring quick learning about long-term impacts, develop
  assessments to co-interpret with government how they expect a project's impact to play out over time,
  and how the project has helped and hindered sustained service delivery
- Recommendations for improving future projects should be considered on two axes of potential impact and feasibility of implementation. This can assist in prioritising recommendations to be applied
- Building the capacity of the institutions responsible for the long-term sustainability of infrastructure should be a key consideration in all project design. Consider how to invest most effectively to build this capacity, especially focusing on gaining practical experience

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#### Note/s

<sup>1</sup> Development partners, as used here, refers to non-governmental organisations, bilateral and multilateral donors, and others implementing development projects.

<sup>2</sup> A financial accounting system based on advances to be reconciled. Similar to a "petty cash" approach.

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