41st WEDC International Conference, Egerton University, Nakuru, Kenya, 2018

TRANSFORMATION TOWARDS SUSTAINABLE
AND RESILIENT WASH SERVICES

Systems mapping for sustainability: a case study of shifting the focus of NGO action in Malawi

S. Byrns & C. Madryga (Malawi)

PAPER 3013

The Sustainable Development Goals (SDGs) have placed a renewed focus on the need for organisations to consider how to produce lasting impact. Often the scope of this undertaking is underestimated and signals the need for an organisational shift in project design and implementation. This paper focuses on the work of WASH Catalysts in evaluating the sustainability of an InterAide project in Malawi's Central Region during its 'exit-phase.' This paper showcases the ways in which creating systems maps identified leverage points and highlighted sustainability risks in InterAide's Hand Pump Mechanic project, which then helped to inform their strategy moving forward. Additionally, it alludes to the value of NGOs using systems maps to inform more sustainable project design in the sector at large.

Introduction

Many NGOs in the WASH sector have been dealing with how to improve their strategies and better contribute towards SDG 6. In many instances, this has meant shifting away from 'business as usual' and beginning to institutionalize recommendations pertaining to sustainability. WASH Catalysts, an organisation operating in Malawi's WASH sector, has been privy to national and sub-national discussions on how organisations are working to implement this. It has become clear that many actors underestimate how radical a change in methodology and approach is needed in order to have a sustainable impact. MDG-era interventions have tended to over-focus on capacity gap training, building infrastructure, and developing new technologies. These interventions have been characterized by the failure to clearly differentiate between the need to establish systems while also ensuring their continued management. This usually stems out of an undervaluation of the role that permanent institutions need to have in ongoing management as well as poor coordination between NGOs working in the same sector.

One of the keys to achieving SDG6 in Malawi lies in NGOs recognising their role in building systems that can be sustained in their absence (IRC, 2014). This may sound simple in theory, but in practice it requires organisations to re-imagine project design, implementation, and role definition (WASH Alliance, 2018). Fortunately, in Malawi's case, there are a number of 'early adopter' organisations who are considering this dilemma and in which WASH Catalysts has been privileged to act as facilitator. This paper will focus on the process that the French organisation, InterAide, went through to re-define the roles of their extension workers as they were nearing the 'exit stage' of their Hand Pump Mechanic work in the central region of Malawi.

Background

Over the past decade, InterAide has invested substantial resources into initialising and managing Hand Pump Mechanic (HPM) networks as well as piloting different options for a sustainable spare parts supply chain for Afridev hand pumps in five districts in Malawi's central region. Working strategically with local government and community development committees, the organisation has had success in managing HPM networks that boast consistently high activity of HPMs in areas where they operate and water point functionality rates as high as 85% in districts such as Salima (GoM, 2018).

Throughout the project period, InterAide has considered different models for longer-term management of the HPM networks, considering private and public models. In 2017, InterAide decided to initiate their transition out of their role as network managers, which then put questions about the network's ability to sustain its success independently of the organisation at the forefront of discussion.

WASH Catalysts' experience in facilitating transition phases with other NGOs and in building resilience within district government systems made it the ideal organisation to undertake InterAide's sustainability risk assessment. The assignment took place from May to October 2017 and assessed the resilience of the HPM networks in three districts, identified areas to strengthen during a phased exit, and suggested re-defining the job descriptions of extension workers to address these weaknesses. As InterAide continues its work to adopt sustainability recommendations generated by this process over the next year, this paper focuses on the methodology, preliminary insights, and decisions the organisation was able to make as a result.

Assessment process

The assessment took place over two three-month periods: the first was an embedded consultancy which mapped the resilience of the HPM network in select districts, the second period developed new role descriptions for InterAide staff that were based on the results of the initial sustainability risk assessment.

### Stage one: mapping the HPM management system

Individual interviews held at district level

In all three districts, preliminary meetings with local government District Water Development Offices (DWDOs) used guiding questions focused on understanding the general context of each district, office trends in spending on water service delivery, their knowledge of the HPM network, data collection practices, and government perceptions of the post-project situation. The goal of these interviews was to understand the current operating environment and to anticipate how the HPM network would independently be managed by the DWDO and other community level institutions in the districts such as Water Point Committees (WPCs) and Area Development Committees (ADCs).

Multi-stakeholder mapping exercise in a single district
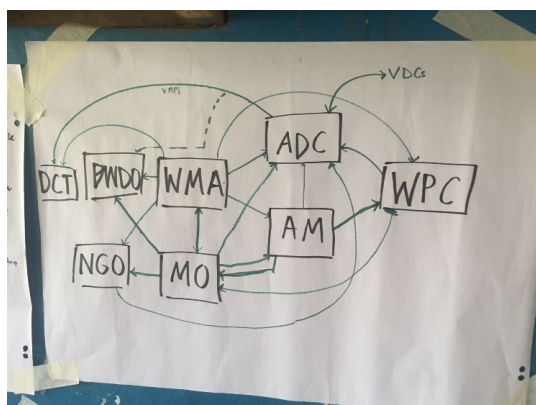
Photograph 1. Mchinji district – current HPM management structure dictated by participants
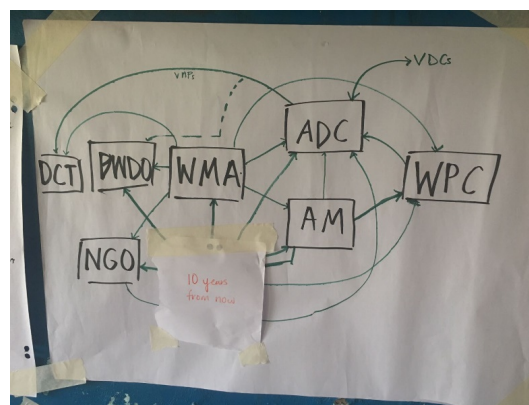
Photograph 2. Mchinji district – discussion prompt – what will the system do without the InterAide Maintenance Officer (MO)?

To dive deeper into the HPM system management, we held a meeting in Mchinji district which brought together DWDO staff, HPMs, representatives from community ADCs, and InterAide staff. The objective of the meeting was threefold: firstly, to understand the current management system, secondly, to illustrate the success of the current system being dependent on InterAide staff communication and management, and finally to spark discussion on roles that other stakeholders in the room would eventually adopt.

Through a series of questions and a small mapping exercise, we discussed the already existing communication lines with HPMs and other stakeholders in the district. This was followed by a second discussion where the InterAide staff member was removed from the system map; what would it take to keep the system functioning and under what circumstances would it fail?

Workshop with InterAide staff to map the district level HPM system management
With the insights generated from the district mapping exercise, we conducted a series of meetings with InterAide staff that workshopped the concept of a post-project HPM management system and discussed what roles different permanent actors would need to play to sustain it.

In the first meeting with InterAide staff, we reviewed the prescribed roles and responsibilities of the Maintenance Officers (InterAide extension staff). For each of their responsibilities, we asked if the activity would need to happen after the project concludes, and if yes, which actor they thought would be best suited to take on the responsibility and why. Roles and actions that were identified as imperative to future management of the network included: recruiting, selecting, and training new HPMs, conducting follow-up and evaluation of HPMs, providing HPMs technical support, leading HPM meetings, and promoting HPMs in the community.

In the second meeting with InterAide staff, we conducted a simplified social network map of the HPM system at district level. Three main interactions between stakeholders were mapped out: information flows, regulatory pathways, and technical/other support flows. The resulting map is depicted below.

Figure 1. District HPM system map, InterAide removed

Source: WASH Catalysts
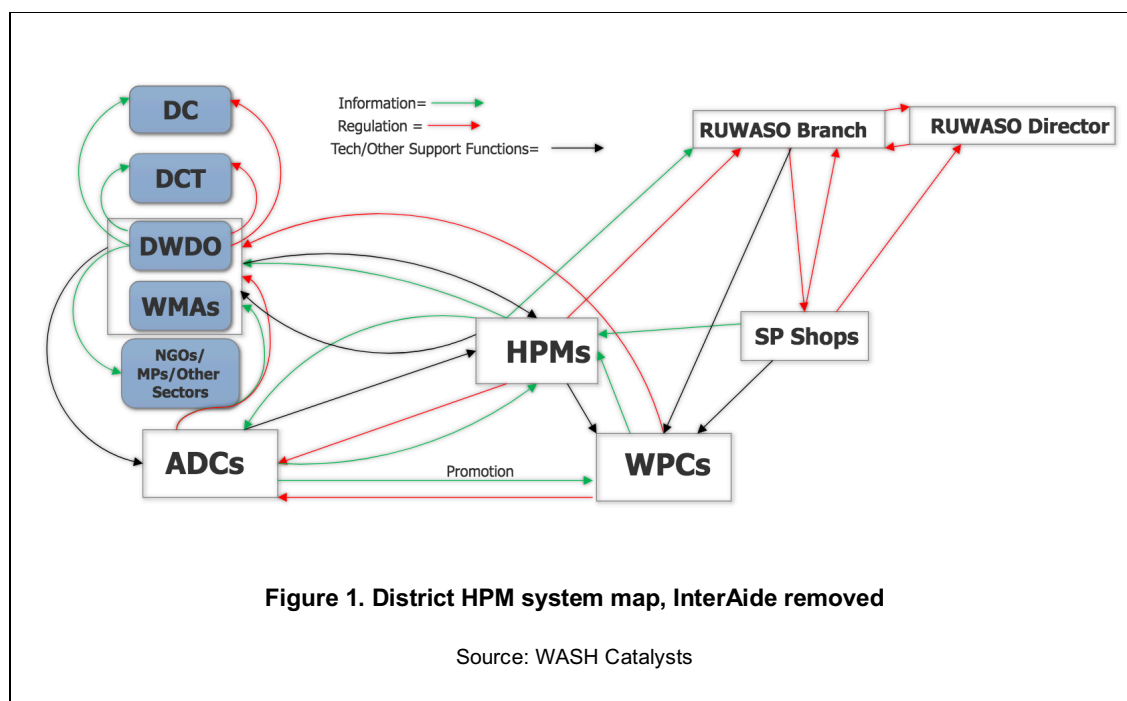
General recommendations from the mapping process
Although specific recommendations emerged based on the unique experience of each district, there were common themes and subsequent mitigation strategies which could be applied to all districts, depicted in Table 1 below.

Table 1. Sustainability risks to the InterAide-managed HPM networks common across three districts and possible mitigation strategies	
General risks identified	**Mitigation strategies**
Access to transport All three districts identified access to transport as a risk, from not having access to vehicles to the WMAs not being physically able to use the vehicles available.	Encourage the district staff to begin using public transport or carpooling with other sectors as a means to get to water points to monitor, to interact with AMs, to attend ADC meetings, etc. (This has already started)
System is too high cost for district resource envelope The cost of managing the HPM network, as it is currently managed by InterAide, is too high for the district to do on their own.	Find ways to more efficiently use existing finances/resources that may not be currently difficult for InterAide to fund but will be a challenge for the district to finance (eg. Printing forms, etc.). Brainstorm the district's own capacity and strategies to manage the network without requiring additional funding beyond what they already receive now. For example, InterAide is piloting the use of hardcover notebooks for HPMs to report information, reducing the need for the district to print forms.
District motivation/valuing HPM network All of the districts lacked some form of motivation or understanding of the importance of proper management of the HPM network.	Ensure the district understands the value of the HPM network and the negative implications to water point functionality, cost of repair, etc, that will come from failure of the network.
District unsure of how they might manage the system after InterAide leaves The district offices do not know their own capabilities, nor what is required to maintain and manage the HPM network.	Ensure the district and other stakeholders (ADCs, etc.) have a clear understanding of the roles they need to play, the importance of these roles, and how they may manage on their own.
The project staff currently play many essential post-project roles The roles that InterAide field staff are playing currently are those that others will be required to play once InterAide leaves. This prevents other stakeholders to be executing those tasks and growing into the role over time.	Ensure that the district is set up in direct communication with all other stakeholders, not relying on communication to go through the project staff first. Re-define project staff roles to support management by the district office and other stakeholders such as the ADCs, rather than direct management of the HPM by the project staff.

Stage two: defining roles of key stakeholders

Defining roles of four key stakeholders in the HPM system (excluding InterAide staff roles)
Throughout the system mapping with InterAide staff, we discussed how each of the 'connecting lines' would influence role descriptions for each of the major stakeholders: HPM, Water Point Committee (WPC), Area Development Committee (ADC), and the DWDO.

We then asked participants to use a process called 'dotmocracy'[1] through which they identified one responsibility, out of each of the four stakeholders, that they felt was least essential to the systems functionality. These responsibilities were deprioritised in subsequent discussion. The aim of this exercise was both to get participants to have difficult conversations that set realistic expectations of others, and to set focus on only essential, sustaining behaviours of the HPM system (also known as defining the minimum viable system). Using the same process, participants then identified the three most important responsibilities of each stakeholder, which enabled InterAide to prioritise next steps to support key stakeholders.

Re-defining job descriptions for the InterAide maintenance officers to support key stakeholders
With a clear picture of the role that permanent actors should play in the post-project context, participants were then asked to brainstorm activities that InterAide could execute to develop the necessary communication lines, skills, and attitudes of the other stakeholders. Overall, it was agreed that the new role of the InterAide maintenance officers should involve less direct management and concentrate on strengthening communication lines and capacity building of other stakeholders to manage the HPM network. An excerpt detailing some of the brainstormed activities is shown in Table 2 below.

Table 2. Examples of new activities for InterAide maintenance officers to support key roles of stakeholders

Stakeholder	Key roles of stakeholder in management of HPM network	Corresponding InterAide maintenance officer activities (selected examples)
Area Development Committees (ADCs)	Promote the HPMs to the community	• Re-introduce the HPMs to the ADCs for them to have information about the HPM work and roles expected to be played by the community
	ADCs to assist the DWDO to follow up with HPMs/performance monitoring	• Ensure that the HPM is reporting to the ADC about his/her work (successes/challenges) on monthly basis • Ensure the ADC is also asking the HPM to give those reports • Have an initial meeting between the DWDO and the ADCs to help ADC understand how they should communicate with the DWDO and what they should monitor with regards to the HPMs • Consider a small, simple monitoring checklist that can be managed by ADCs
District Water Development Office (DWDO)	Conduct follow-up and evaluation of HPMs	• Train the DWDO staff to use the evaluation form • Make sure they have contact list of HPMs • Assign the government extension workers to clusters of HPMs so they know who is responsible for which part of the district, collect key contact information • Field training for DWDO staff on how to conduct follow-up itself • Plan with the DWDO on how follow-ups will be done. How will the DWDO manage? What are some strategies? Mentor them as they start to try to do it on their own.
	Lead technical training of new HPMs	• Conduct a TOT for government extension workers so they have the technical capacity to train HPMs • Coach extension workers to plan for the training- what do they need to organise/prepare, the logistics, who to involve, etc. • Mentor them to lead a training of HPMs and then debrief afterwards to give tips on how to improve, what went well, etc.
	Regulation of other actors such as NGOs, donors, Ministry, MPS, councilors, churches, chiefs, etc.	• Produce a list of all the other relevant stakeholders in the district and their contacts, in order for the DWDO to be aware of them and have a direct contact link to each of them • Have the DWDO sign an MOU with these stakeholders regarding HPMs • Produce a simple form for HPMs and ADCs to use to report back to the DWDO when these stakeholders break the rules ("infraction report")

Lessons learned

Through their role as facilitators, WASH Catalysts and InterAide staff have identified several insights and considerations that may be useful for other organisations hoping to undertake a similar process.

- Simplifying system mapping processes can make mapping a more practical and deployable tool for NGOs to make operational decisions and conduct role definition, especially considering other methods of systems mapping can be more complicated or require special software.
- Systems mapping revealed the extent to which system functionality is dependent on NGO action. It also revealed that re-evaluating roles at the end of the project period make it more difficult to adjust expectations of stakeholders who will then need to take on additional responsibilities. Signaling that role definition and considering exit-strategies from the onset of a project should be at the forefront of project design.
- While framing the roles for key stakeholders is useful, generating buy-in and creating realistic commitments may be best achieved through conversations that ask them what role they think they can play in sustaining the network. These conversations may be guided by the framing done by projects but NGO-fabricated roles should not be "handed" to participants.
- Regional and district variation mean that while the standardisation of roles of key stakeholders is beneficial for harmonised action, there is still a need to be flexible and make time for detailed discussions surrounding roles and responsibilities that produce action plans specific to each district.
- Network sustainability indicators can be built around the ability of various stakeholders to play long-term roles in managing, promoting, and sustaining the HPM network (or other system).
- Conversations regarding transitioning out of projects required addressing the fears of NGO staff regarding their job security as directly as possible. Moving forward it was important to find ways to motivate staff with new responsibilities that assured them that they would remain gainfully employed.

Conclusion

InterAide is among few organisations in Malawi that have taken bold steps towards re-hauling 'business as usual' in response to concerns surrounding system sustainability. Facilitating a simplified mapping process highlighted the degree to which the NGO playing a principal role in management was negatively impacting the sustainability of InterAide's HPM networks. The way forward calls for greater inclusion of actors from permanent institutions, as well as changes to the role definition, and thus the core day-to-day activities, of project staff.

Many organisations that WASH Catalysts has worked with experience a similar 'blindspot' in recognising how integral the NGO activities and funding become to a system that is meant to stand on its own post-project. This is one of the most important risks to mitigate for as our sector strives toward the achievement of SDG6, and NGOs must start to answer the following key questions: how is our work situated in a system, how will that system sustain itself without us, and what are we doing to strengthen that system without becoming an essential part of it? Apart from following up with InterAide, WASH Catalysts is currently working with a number of other organisations on similar sustainability assessments that will impact project transition strategies, as well as packaging simple tools and guides for others to follow. Our goal is to continue to facilitate this type of process for other interested NGOs and projects, and we hope that this case study will serve as a starting point for self-reflection.

References

Government of Malawi. (2018). Salima District Water Development Office water point records.

Moriarty, P. (2014). IRC Blog. *Changing the whole system to provide services that last.* Available at: https://www.ircwash.org/blog/changing-whole-system-provide-water-sanitation-and-hygiene-services-last

WASH Alliance Website. (2018). Available at: https://wash-alliance.org/our-approach/sustainability/institutional-sustainability/

Note

'Dotmocracy' is an informal process of voting in which the participants indicate their preference by placing or drawing a dot alongside the favoured choice.

Contact details

Sydney Byrns is the Program Director of WASH Catalysts in Malawi, and is interested in the role of systems thinking in sustaining development impacts. Chelsea Madryga is an Institutional Sustainability Officer for WASH Catalysts who is passionate about the role of government and policy in development.

Sydney Byrns
PO Box 2207, Lilongwe, Malawi.
Tel: +265 (0) 991 755 901
Email: sydneybyrns@ewb.ca

Chelsea Madryga
PO Box 2207, Lilongwe, Malawi.
Tel: +256 (0) 993 673 845
Email: chelseamadryga@ewb.ca