Many rural communities in sub-Saharan Africa lack clean water for basic needs. Available data suggests up to one in three rural groundwater-based water supply facilities fails within just a few years of construction in sub-Saharan Africa,¹ as boreholes fitted with handpumps enter cycles of failure and repair or become abandoned altogether. Whilst there are many interrelated factors at all levels (national, district and community) that affect the sustainability of rural boreholes fitted with handpumps, it is the local government or district level which holds the mandate for ensuring everyone has access to sustainable water supply services in decentralised states.

People involved in delivering, managing and using handpump-based rural water supplies often have different perspectives about the factors driving poor performance and service failure. To better understand these, in 2018, District Sustainability Assessments (DSAs) were carried out in Ethiopia, Malawi and Uganda as part of the UPGro Hidden Crisis Project.² A total of 12 districts were assessed, four in each country. The DSAs were conducted to generate complimentary data about the district-level institutional factors that affect the sustainability of rural boreholes fitted with handpumps.

These assessments complement the findings of other UPGro Hidden Crisis research outputs, such as political economy analyses, the geophysical assessments, and the social and community-level social science studies.

This document summarises the findings from the full District Sustainability Assessment reports from Ethiopia, Malawi and Uganda. All findings and perspectives presented are those of the district level stakeholders who participated in the DSA focus groups, and not necessarily those of the authors.

**Methodology**

For each DSA, workshops were convened with district local government water supply and health staff, service users, handpump mechanics, non-governmental organisations (NGOs) and providers of support. Workshop facilitators were trained by WaterAid to undertake a series of participatory exercises which aimed to: 1) assess the influence and interest of stakeholders involved in delivering and sustaining water supply services in the district, 2) discuss and clarify roles and responsibilities of those involved in ensuring sustained water supply in each district, 3) unpack threats to handpump sustainability, and 4) self-assess the strength of the district’s enabling environment using WaterAid’s

² See: upgro.org/ for more information about the research project and findings.
District Sustainability Analysis Tool (Building Block Tool).atham  These participatory exercises rely on strong facilitation to navigate power dynamics and clarify stakeholders’ contributions during focus group discussions, to ensure all views are expressed, and consensus reached that reflects the strength of the rural water supply sector. These assessments are not an in-depth social science study, but rather sought to understand the level of consensus among district-level stakeholders about the strength of the rural water supply sector regarding the sustainability of rural boreholes fitted with handpumps. Whilst results cannot be compared across districts and countries, this summary presents an overview of the findings of the three studies, highlighting common key factors at the district level that affect sustainability of rural water services.

**Results**

Rankings from all of the district-level Building Block Assessments show there is progress to be made in all three countries before boreholes fitted with handpumps provide a reliable and sustainable water supply service. In all countries, Building Blocks were ranked as fragile but strengthening or transitioning, with the exception of two districts in Malawi which assessed coordination as fully transitioned.

**Ethiopia results**

**Coordination, strategic planning and financing:**
In national policy, district plans should set out how universal water, sanitation and hygiene (WASH) coverage will be achieved in line with the National Growth and Transformation Plan 2 (GTP 2).

<table>
<thead>
<tr>
<th>Building block assessment results of four districts in Ethiopia</th>
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<td>Coordination</td>
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**Key**
- Emergency WASH
- Fragile but strengthening
- Transitioning
- Fully transitioned


This, alongside the district coordination body (Woreda\(^5\) WASH Team (WWT)), serve as opportunities to coordinate actors and agencies involved in rural water services. However in only two of the four districts were the WWTs meeting regularly, and even then, not all of the necessary district offices were engaged in the process. Also, while each district reported to have a district plan, these were un-costed due to limited understanding of life cycle costs. Similarly, limited fiscal decentralisation to districts leads to insufficient budgets for the delivery of plans. District authorities do not budget for capital maintenance, suggesting extending coverage is prioritised over investment in sustaining services. In some instances as little as 4% of the district budget is allocated to maintenance.\(^6\)

**Institutional arrangements and accountability:** Roles and responsibilities overlap, particularly in relation to setting water tariffs and management of water supply services in schools and health facilities. This makes holding stakeholders to account for poor performance a challenge. Feedback from communities is sporadically addressed by district authorities or used to inform future water policy.

**Service delivery:** Weak enforcement of regulations, lack of oversight and lack of finance undermine adherence to national standards for water supply. Service delivery is fragmented with no common targets for water supply. Post-implementation support from district authorities is not sufficient to ensure services are sustained. **Monitoring:** while service level indicators exist on paper, these are rarely used in practice to inform planning or budgeting processes. However, all four districts reported to use checklists to monitor progress towards plans.

### Malawi results

**Coordination and strategic planning:** District participants report that sector coordination has improved at district-level with a coordination mechanism and sector investment plan in place (albeit now expired). Challenges remain in harmonising the efforts of the many NGO and faith-based organisations involved in district water supply services.

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\(^5\) ‘Woreda’ is the Amharic term for ‘district’.

Government policy, district plans and NGO interventions focus on extending coverage and do not systematically consider life cycle costs of rural water services. **Financing:** Limited district budget is allocated to capital costs of infrastructure and ongoing operation and maintenance (O&M) is dependent on community’s ability to raise funds. **Institutional arrangements:** Roles and responsibilities for management and delivery of water supply appear to overlap with stakeholders assuming multiple roles and responsibilities often due to funding limitations. District Water Development Offices in all four districts are insufficiently funded and staffed, particularly hampering O&M support provided to communities. Low capacity of community level actors responsible for O&M combined with poor supply chains, leads to escalating (but preventable) maintenance requirements. Politicians with significant influence and interest in rural water services are incentivised to install handpumps for political gain, but not to sustain them. **Monitoring:** There is no joint monitoring framework in the districts and limited sharing of information amongst stakeholders, including NGOs with district offices and district with communities, making ensuring accountability a challenge. District participants also suggested the lack of community involvement in NGO project planning and implementation results in a community perception that they don’t own the handpump, sometimes resulting in cases of vandalism.

### Uganda results

**Coordination and strategic planning:**
District plans largely focus on extending coverage. Arrangements are in place for O&M, but plans do not consider the full life cycle cost of rural water services, so whilst some money is available for major maintenance it is not sufficient to meet the need. A functional platform exists for sector collaboration and coordination to harmonise plans of other sectors involved in district water supply. **Institutional arrangements and financing:** Roles and responsibilities are clear for the management and delivery of rural water services and are known by district stakeholders. However, these are not all upheld in practice due to partially-funded district plans (itself the result of limited fiscal decentralisation), and the district administrative costs such as salaries, which absorb the majority of funds received. Districts therefore prioritise funds for capital costs of infrastructure. Indeed, no less than 70% of the budget should be spent on new construction, while a maximum of 13% can be allocated to rehabilitation. Capacity and funding gaps restrict District Water

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Offices (DWO) in re-training water user committees and upholding and ensuring adherence to national standards within service delivery. **Accountability:** DWO’s ability to act on community feedback is determined by available finance. There are large capacity gaps for actors involved in O&M in three districts. **Service delivery** is hampered by lack of oversight of borehole installation, gaps in skilled and sufficient numbers of staff to follow-up and deliver post-implementation support, poor supply chains for parts and materials, and non-functional water user committees. This results in limited monitoring, delayed maintenance and the likelihood of further support requirements. District participants also suggest there is limited community ownership causing handpumps to be vandalised.

**Cross-cutting factors affecting sustainability of boreholes fitted with handpumps** (from district assessments in 12 districts):

**District planning does not include or budget for full life cycle costs of rural water services.** Extending water supply coverage is prioritised over planning for a full sustainable service, leaving a gap in the provision of continued support essential for service sustainability. In Ethiopia, whilst plans mention sustaining coverage, budget allocations predominantly for capital costs imply the districts focus on increasing coverage. In addition, fragmented project implementation by different actors as reported in Ethiopia and Malawi often excludes provisions or considerations for post-implementation support.

**Limited and insufficient funding received by district local government.** In all three countries, the decentralised state structure is unmatched with sufficient fiscal decentralisation. With limited funding, and low coverage rates, districts target investment towards new infrastructure or capital costs (in the case of Malawi, this is per national policy) in the push for extending coverage. Funds received at district-level via fiscal decentralisation cover staff costs in Ethiopia and district administrative costs in Uganda, leaving limited funds for operation & maintenance or capital maintenance expenditure. Handpump sustainability is therefore dependent on communities’ ability to arrange support themselves and the mandated actors ability to provide it.

**District authorities lack funding and human resource capacity to fulfil their mandates.** Despite district authorities’ high interest and influential role in ensuring rural water supply sustainability, lack of funding limits their ability to fulfil their mandate. This affects their ability to ensure the functionality of water user committees, provide timely post-construction support to communities, lead coordination of district stakeholders, respond to community feedback, monitor services and ensure adherence to national standards related to all aspects of service delivery.
Clarity of district level roles and responsibilities for the management and delivery of water supply services varies in the three countries. Roles and responsibilities must be clear in order for institutions to be held to account for their performance. In Malawi and Ethiopia, roles and responsibilities overlap and are unclear. In Ethiopia, responsibility for the management of water supply in health care facilities (HCFs) and schools, and in setting tariffs for water supply is unclear. In Malawi, stakeholders hold multiple roles and responsibilities which are often unaligned with those set out in government policy.

Service delivery does not align with standards for access, quantity, quality and reliability of water supply in all three countries. Water service delivery is hampered by lack of oversight to ensure quality installation and repair of boreholes/handpumps, poor quality supply chains for parts and materials, and weak enforcement of regulation. Capacity gaps exist, particularly of actors involved in O&M, with high turnover and lack of skilled personnel, such as district monitoring assistants and mechanics. Service actors are not held to account for their adherence to national standards, resulting in poor installation, structural and mechanical breakdowns and weak post-implementation support.

Communities struggle to ensure on-going O&M of handpump-fitted boreholes. Participants perceive water user committees to be essential for ensuring handpump functionality. They report that this is dependent on their skills, motivation, and sense of ownership over the handpump. There is a perception that a lack of ownership results in an unwillingness to perform their mandated role and can lead to vandalism of the handpump. While this is the perception of participants, other social science research in UPGro, and indeed other studies outside UPGro, have found that having a water user committee has little impact on water point functionality.⁸

National water resource policies have not yet been fully translated to the district level to ensure water resources are protected and threats mitigated.

Conclusion

These studies provide further insight into the district-level institutional factors that affect the sustainability of boreholes fitted with handpumps in Ethiopia, Malawi and Uganda. The findings are in line with other district-level research on the sustainability of rural water services and with the results of the political economy analyses and community-level social studies conducted by the UPGro Hidden Crisis project. To help improve the sustainability of rural boreholes fitted with handpumps in Ethiopia, Malawi and Uganda, policy focusing on extending water supply coverage, at the expense of sustainable service provision, must be revisited. Overlapping roles and responsibilities for the management and delivery of water supplies also need to be clarified. Decentralised delivery of water supply services must be matched with adequate fiscal decentralisation to ensure that districts have the financial resources needed to perform their role. As key actors with the mandate to ensure sustainable delivery and management of water supply services, districts also need structured capacity support to enable them to adequately support communities in managing and maintaining their water supply. Efforts to calculate the full costs of reaching and sustaining universal water supply access (using various service options) in the district must be undertaken and integrated into district plans. These must be complemented by efforts to identify and leverage additional funding sources to implement costed plans.

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WaterAid is an international not-for-profit, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. Only by tackling these three essentials in ways that last can people change their lives for good.