Sustainable WASH Systems Learning Partnership (SWS) Bibliography

2016–2021

Flagship Resources

Global Resources

Sustainable WASH Systems Learning Partnership End of Project Report

Flagship

15 December 2021

This end of project report captures SWS partners' lessons, challenges, and achievements in rural water and small town sanitation services across Cambodia, Ethiopia, Kenya, and Uganda. The document shares approaches and findings from the partnership's study of how systems understanding and engagement can help service providers navigate the complex challenges to service sustainability, how incentivizing preventive maintenance and fast repair times can improve rural water services, and how collective action platforms can bring about policy change. A companion annex is available here.

End of Project Report Annexes

Flagship Annex

15 December 2021

This End of Project Report Annex contains comprehensive information on how SWS partners addressed learning questions across WASH contexts in Ethiopia, Uganda, Cambodia, and Kenya. The Annex also includes a Monitoring, Evaluation, and Learning Plan Report summarizing progress towards SWS performance indicator targets.

Understanding and Analyzing Systems

Social Network Analysis

Using Social Network Analysis in WASH Programs
Flagship
15 September 2021

This report documents the use of social network analysis (SNA) across SWS locations in Ethiopia, Kenya, Uganda, and Cambodia to provide insights into relationships and dynamics that hinder or enable water, sanitation, and hygiene (WASH) sustainability and identify opportunities to improve collaboration and collective results. By improving the understanding of resource and information flows that influence a stakeholder network's ability to coordinate and act, SNA can be applied to advance WASH services in low-resource settings.

Conceptualizing Service Delivery Approaches from a Systems Perspective
Brief
15 November 2021

To assess shifts in stakeholder understanding of factor interactions in WASH systems, SWS researchers analyzed key informant interviews conducted with WASH stakeholders over the project's 5-year duration. This Learning Brief summarizes the study approach and findings, with lessons learned on how to improve stakeholders' systems understanding within the WASH sector.

Tracking Network Analysis in SWS: Debre Birhan, Ethiopia
Brief
1 April 2021

SWS partner, LINC, applied organizational network analysis to better understand relationships and dynamics among WASH stakeholders in the rapidly growing town of Debre Birhan, Ethiopia. The analysis aimed to identify opportunities to improve network cooperation, information sharing, and capacity development among WASH learning alliance members, including public authorities, non-governmental organizations, private sector, donors, and academics working to improve sanitation in the area.

Tracking Network Analysis in SWS: Cambodia

Brief

1 April 2021

In 2017, SWS partners, LINC and WaterSHED, conducted an organizational network analysis (ONA) of the Rural Sanitation and Hygiene Network in Cambodia. The analysis examined relationships among network members to coordinate actors to accelerate the Cambodian government's vision of universal WASH services in rural communities.

Strengthening WASH Networks in Ethiopia: Analyzing an Urban Sanitation System

Webinar

19 May 2020

Ethiopia

This webinar presents progress made in two urban sanitation learning alliances in Ethiopia, including midterm results of a longitudinal ONA. Lessons learned from the learning alliances and network analysis provide insights into pathways to improve sustainable service delivery through locally led systems change and using systems analytic tools to measure change.

Sustainable WASH Systems: Social Network Analysis

Video

13 May 2020

Uganda, Kenya, Ethiopia, Cambodia

SWS partners implemented SNA analyses in Ethiopia, Kenya, Uganda, and Cambodia to help practitioners visualize the relationships between actors that contribute to the sustainability of a WASH system. This video highlights the work of SWS partners applying SNA in planning and designing interventions, monitoring and evaluation, strengthening networks, and facilitating local action.

Using Social Network Analysis in WASH Programs

Brief

13 May 2020

Uganda, Kenya, Ethiopia, Cambodia

This learning brief summarizes SWS's application of SNA to explore relationships across WASH networks in Ethiopia, Kenya, Uganda, and Cambodia. SNA is a systematic analytic tool that can be used to design, plan, monitor, and strengthen WASH interventions and networks.

Using Network Analysis to Understand and Strengthen WASH Systems
Webinar
21 Feb 2018
Cambodia, Ethiopia, Uganda

On February 21, 2018, SWS conducted a webinar that provides an introduction to network analysis and early lessons learned from analyses conducted in Ethiopia, Uganda, and Cambodia. SWS is using such analyses to better understand the complex interactions and interdependencies of actors in a local WASH system, with the ultimate goal of increasing the sustainability of WASH services.

Social Network Analysis: Baselines

Understanding Coordination in Kitui County's Water Sector: An Analysis of Stakeholder Interactions and Perspectives
Report
23 August 2019
Kenya

This report details an ONA studying interactions across WASH sector actors in Kitui County, Kenya. The analysis revealed opportunities to pool resources and improve coordination across the sector to facilitate progress toward sustainability of water service provision in the county.

Understanding the Network that Sustains Rural Water Services in Uganda's Kabarole District
Brief
18 October 2018
Uganda

This research brief presents results from a network analysis of stakeholder relationships affecting rural water service sustainability in Kabarole District, Uganda. Findings suggest that engaging key actors such as political leaders could more efficiently connect WASH networks and consistent engagement with communities in collaborative efforts could improve sustainability of WASH services.

Mapping Stakeholder Connections to Improve WASH Collaboration in Ethiopia
Report
2 July 2018
Ethiopia

In four woredas and towns in Ethiopia, SWS supported locally led platforms to increase collaboration and knowledge sharing among WASH actors and employed network analysis to improve understanding of the relationships among these organizations. Information from the

network analysis was intended to inform goals, activities, and structures of these locally led platforms and provide a baseline for tracking changes in the network over time.

Network Analysis of Factors Affecting Rural Water Service Delivery In Kamuli District, Uganda
Report
1 May 2018
Uganda

In April 2018, SWS partner, Whave, undertook a network analysis of the actors involved in rural water service delivery in Kamuli District Uganda. This nuanced understanding of actor interactions can be used to strategically influence how the network evolves to better support the establishment of a viable preventive maintenance model.

Analyzing and Improving Collaboration Among WASH Stakeholders in Ethiopia
Brief
1 March 2018
Ethiopia

This report details the methodology, findings, and lessons learned from organizational network analysis conducted across three WASH system learning alliances in Ethiopia. The objective of this analysis was to understand the current network of relationships among WASH sector stakeholders to inform learning alliance goals, activities, and structures, and to provide a baseline for tracking changes in the network over time.

Network Analysis and Systems Assessment for Sustainability in the Rural Sanitation and Hygiene Sector in Cambodia
Report
1 March 2018
Cambodia

This research report examines the relationship between network actors in Cambodia's Rural Sanitation and Hygiene sector. The analysis aims to generate a common understanding, leading to more coordinated actions among NGOs, government departments, private sector, and other actors in the sector.

Social Network Analysis: Midlines and Endlines

Sanitation in Small Towns — Woliso, Ethiopia Endline Assessment
Report
15 December 2021
Ethiopia

This report presents the findings of an endline assessment of sanitation services in Woliso, Ethiopia, conducted in January 2021, and the outcomes of a subsequent stakeholders' workshop to discuss and verify the results. SWS partners, Tetra Tech and LINC, conducted an assessment of the service delivery context in Woliso focusing on: (1) containment and excreta management services, (2) the enabling environment for achieving and sustaining universal access to safely managed sanitation services, and (3) the nature of relationships between local actors involved in service delivery at the end of the project.

Sanitation in Small Towns—Debre Birhan, Ethiopia Endline Assessment
Report
15 December 2021
Ethiopia

This report provides an endline assessment of small-town sanitation systems in Debre Birhan, Ethiopia. The methodology and data collection instruments for this assessment were developed from the Sanitation Cityscape Approach, also used for the 2018 baseline assessment, to assess sanitation at a city-wide level, from households to governance and institutional structures.

Endline Organizational Network Analysis of the Kamuli Rural Water Stakeholder Network
Report
1 July 2021
Uganda

This report details an endline ONA of WASH actors in Kamuli District, Uganda, to learn how different approaches to systems thinking and analysis might strengthen rural water service delivery. The study, conducted in 2020, repeats an analysis conducted in 2018 to understand network changes over the 2-year period, with perspectives captured from stakeholders on how or why these changes occurred.

Understanding Changes in Coordination in Kitui County's Water Sector 2018–2021

Report
1 June 2021
Kenya

This report compares results of organizational network analysis of Kenya's Kitui WASH forum, from 2018 to 2020, to understand how network relationships have changed through various SWS interventions. To achieve sustainability in the Kitui WASH sector, the analysis identifies opportunities for: institutionalizing the WASH forum network within water policy/law to play a stronger coordination role in the sector; strengthening monitoring and reporting capacities to facilitate information and skills relationships; and streamlining sector funding to ensure clear strategies for supporting universal water access in rural Kitui, among others.

Ethiopia Endline Social Network Analysis

Report
1 May 2021
Ethiopia

This report details the results of the final of three SNA conducted in four WASH learning alliances in Ethiopia. By analyzing SNA data and trends over time, SWS quantified learning alliance dynamics to observe differences and commonalities among members based on their services, sectors, and relationships.

Ethiopia Midterm Organizational Network Analysis Report

Report
29 May 2020
Ethiopia

This report compares the first two of three organizational network analysis that SWS partners conducted on WASH learning alliances in Ethiopia. Comparing results from the baseline to midline analysis aids in developing an understanding of the current network of relationships among these organizations and informs learning alliance goals, activities, and associated relational structures.

Factor Mapping

Assessment of Shifts in Stakeholder Understanding of WASH Systems
Flagship Report
17 September 2021

This study sought to build evidence on the impact professionalized maintenance and facilitated collective action systems approaches have on stakeholder's ability to conceptualize complex factors and interactions that influence WASH service sustainability. Findings showed that stakeholders increasingly conceptualized more factors, actors, and their relationships necessary for systemic service delivery, demonstrating a greater understanding of the complexities and nuances of their local WASH contexts.

Systems and Understanding: Lessons Across USAID's Sustainable WASH Systems Learning Partnership
Webinar
27 October 2021

Systems approaches can have a significant impact on the planning and management of sustainable WASH services. In this webinar SWS investigates the hypothesis that improving local stakeholders' understanding of the interconnected factors that influence service delivery leads to more holistic decisions that result in improved service delivery outcomes.

Sector Perspectives on the Attributes of Systems Approaches to Water, Sanitation and Hygiene Service Delivery
Journal Article
February 2022

This journal article, published in *Journal of Environmental Engineering,* presents a study of remotely convened WASH sector experts in a multi-round Delphi survey to coalesce sector knowledge on the use of systems approaches for WASH service delivery in low-income countries. The study findings highlight sector alignment on many of the attributes that make WASH systems approaches distinct from traditional approaches. However, the findings also point to a need for future research that explores practical and scalable tools and techniques to map and evaluate WASH systems, and ways to engage relevant actors in these approaches to collectively apply systems knowledge.

Assessing the Efficacy of a Group Model Building Workshop in an Applied Setting through Purposive Text Analysis
Journal Article
19 August 2020

This journal article, published in *System Dynamics Review*, presents research on group model building (GBM) approaches in rural water service delivery workshops with SWS partners in South Ari, Ethiopia; Kabarole, Uganda; and Mille, Ethiopia. Applying purposive text analysis, causal loop diagrams, and quantitative analysis, results supported that individuals convened in GMB workshops had greater alignment on factors, causal links, and feedback.

Understanding Rural Water Services as a Complex System: An Assessment of Key Factors as Potential Leverage Points for Improved Service Sustainability
Journal Article
9 February 2020

This article, published in *Sustainability,* applies systems tools to evaluate factors and interactions that support rural water service sustainability. Through analysis of participatory factor mapping workshops with local WASH stakeholders, researchers found that while participants tend to identify a common set of factors, the interactions among those factors and their individual ability to influence service sustainability varies considerably across contexts.

Factor Mapping to Understand Water Source Functionality in Kamuli District, Uganda
Brief
23 August 2019
Uganda

This SWS research brief presents findings from five factor mapping workshops conducted by Whave Solutions in Kamuli District, Uganda, between April and October 2018. The analysis produced several insights that can help identify key leverage points to focus efforts to promote the functionality of water services in the district.

Summary Report of Baseline IFML Analyses in Kamuli District, Uganda
Report
23 August 2019
Uganda

Between April and October 2018, Whave conducted five factor mapping workshops in Kamuli District, Uganda, to learn about factors that affect the functionality of rural water services in the area. This SWS report presents a synopsis of findings and methodology from the iterative factor mapping and learning (IFML) process.

Stakeholder-Driven Factor Mapping for WASH Systems
Brief
10 June 2019
Uganda, Ethiopia, Cambodia

SWS is piloting factor mapping workshops to improve stakeholders' understanding of complex

WASH systems and align their perspectives on the key components and the interactions between them that lead to improved service delivery outcomes. This brief outlines key steps in the factor mapping process and initial findings from its application in five locations in Ethiopia, Uganda, and Cambodia.

Factor Mapping for Rural Water and Small Town Sanitation Services
Report
1 April 2019
Ethiopia, Uganda

This report presents findings from factor mapping activities conducted in four local WASH system contexts: the rural and small town water systems of South Ari and Mille districts in Ethiopia's South Omo Zone and Afar Region, Kabarole District in Uganda, and the small town urban sanitation system of Woliso in Ethiopia's Oromia Region. The report presents an overview of the factor mapping approach, types of systems analysis employed, and cross-context findings and reflections from the first iteration of the process within SWS.

Understanding Factors and Actors to Achieve Sustainable Drinking Water Systems in Kitui County, Kenya
Brief
15 August 2018
Kenya

This brief presents findings from a water audit undertaken in Kitui County and a ranking of factors for sustainable WASH systems based on priorities of 42 actors as shared during a forum in February 2018. One key finding is that despite the water audit showing significant challenges with functionality of water sources, actors are still focused on building new WASH infrastructure.

Context Analysis

Context Analysis Uganda
Report
1 March 2018
Uganda

This context analysis report, created in 2018, provides a summary overview of the current situation in Uganda and a background on the Kabarole District to serve as input for the design of SWS interventions in the country. National context, WASH sector analysis, an overview of Sector Financing, and background on adopting systems approaches in Uganda are included in the report.

Outcome Mapping & Scorecards

Monitoring Methods for Systems-Strengthening Activities Toward Sustainable Water and Sanitation Services in Low-Income Settings
Journal Article
29 August 2020
Uganda, Kenya, Ethiopia, Cambodia

This paper, published in *Sustainability,* reviews the application of systems approaches and evaluation methodologies to WASH interventions at varying geographic scales in East Africa. Early findings indicate that including both outcome mapping and system-wide assessments within an overall monitoring approach are important for supporting systems to strengthen water and sanitation services.

Measuring Systems Change in WASH Programming: A Practical Application of Two Tools
Report
10 August 2020
Uganda, Kenya, Ethiopia, Cambodia

This report provides a guide to the practical application of outcome mapping and scorecard development to effectively monitor systems change in WASH programming. It includes examples of how these tools have been applied within SWS and recommendations for future application.

Multiple Methods

System Approaches to Water, Sanitation, and Hygiene: A Systematic Literature Review
Journal Article
21 January 2020

Authors of this journal article, published in the *International Journal of Environmental Research and Public Health*, conducted a systematic literature review of systems approaches for WASH across peer-reviewed, gray, and organizational literature. Review findings provide a robust survey of the existing landscape of systems approaches for WASH and propose a path for future research in this emerging field.

A Local Systems Analysis for Rural Water Services Delivery in South Ari and Mile, Ethiopia
Report
10 September 2019
Ethiopia

This report provides a synthesis of various rural water studies and systems analyses, including asset inventory, service delivery assessment, life-cycle cost analysis, sustainability check, organizational network analysis, and factor mapping, undertaken in two rural woredas (districts) in Ethiopia. The strengths of the decentralized local systems delivering services in these locations are summarized and interactions between key actors and factors are described.

Sanitation in Small Towns – Debre Birhan, Ethiopia: Baseline Assessment Report
Report
14 December 2018
Ethiopia

This report presents the findings of a 2018 baseline assessment of sanitation services in Debre Birhan, Ethiopia. The aim of the assessment was to understand sanitation service provision conditions at the community level, the service delivery environment, the enabling environment at the city level, and the relationship between actors within the WASH network that comprise the local system.

Sanitation in Small Towns – Woliso, Ethiopia: Baseline Assessment Synthesis Report
Report
15 November 2018
Ethiopia

This report presents the findings of a baseline assessment of sanitation services in Woliso, Ethiopia, and the outcomes of a subsequent stakeholders' workshop to discuss, understand, and verify the results. To understand the sanitation service delivery context in Woliso, the assessment focused on containment and excreta management services, the enabling environment for safely managed sanitation services, and the nature of relationships between local actors involved in service delivery.

Professionalized Maintenance

Legal and Policy Change to Promote Sustainable WASH Services in Kitui County, Kenya
Flagship Report
15 December 2021

Focusing on Kitui County, this report outlines the direction of rural water policy change in Kenya over the past 10 years and reflects on ways public, private, and civil society actors are contributing to the evolution of a county water policy that supports WASH service delivery. To advance the sustainability of WASH services in Kitui County and beyond, core recommendations from this research include: accounting for the long timeframes of institutional change, drawing on legal expertise and building trust for policy experiments in the rural water sector, and establishing collaborative learning approaches through WASH forums.

A Roadmap for System Strengthening for Professionalized Rural Water Maintenance Services
Flagship Report
15 November 2021

This flagship report synthesizes learnings from SWS partners, IRC, FundiFix, and Whave, with research from University of Colorado graduate students engaging with improved rural water maintenance services. System dynamics modeling and qualitative comparative analysis among other methodologies are applied to provide an analysis of common trends, gaps, and lessons of the factors and systems relating to maintenance provision.

Understanding WASH Systems with Systems Dynamics Modeling
Flagship Infographic
24 August 2021
Kenya, Ethiopia, Uganda

This infographic visualizes the dynamics between factors and actors in water maintenance cycles as groundwater pumps go from a state of working, to broken, to repaired. The infographic is a part of SWS's work to apply System Dynamics Modeling to investigate the effects of resource allocation on borehole repairs in Ethiopia as well as the financial and functionality implications of scaling professional maintenance services for the rural water sector in Kenya.

Pathways to consumer demand and payment for professional rural water infrastructure maintenance across low-income contexts

Journal Article
1 April 2022
Uganda

This paper, published in Science of the Total Environment, explores conditions that promote professionalized maintenance rural water service providers to retain consumer contracts. Fuzzy-set Qualitative Comparative Analysis is applied to identify combinations of operational, natural, physical, political, and social conditions enabling high contract retention across 22 implementation cases in Uganda, uncovering 2 pathways to success.

Institutional influences on local government support for professionalized maintenance of rural water infrastructure in Uganda: A qualitative analysis

Journal Article
15 February 2022
Uganda

Published in PLOS Water, this paper presents a qualitative analysis of semi-structured interviews with 93 Ugandan local government actors, following the release of a novel policy from Uganda's Ministry of Water and Environment promoting professionalized rural water system maintenance. Through the lens of Organizational Institutional Theory, this research identifies how the institutional environment influences local government fulfillment of assigned support functions.

Turn up the dial! System dynamics modeling of resource allocations toward rural water supply maintenance in East Africa

Journal Article
31 January 2022
Ethiopia and Kenya

This study, published in ASCE's Journal of Environmental Engineering, applies system dynamics modeling to investigate the effects of allocating resources to borehole maintenance and repair in the Afar Region in Ethiopia and Turkana County in Kenya. Sensitivity analysis and sensor data from 245 boreholes are used to model the relationship between maintenance budget allocations and borehole functionality levels.

System-Strengthening Interventions to Scale Up Professionalized Maintenance Brief

Research Brief
15 December 2021

This policy brief is based on analysis of the aggregated learning generated by SWS systems strengthening interventions working to scale up professionalized maintenance in Ethiopia, Kenya, and Uganda. Aimed at development partners (donors, implementing NGOs, and Charities), the brief summarizes main findings and provides recommendations for engaging in financing or implementing rural water supply interventions.

Near Real-Time Borehole Functionality Monitoring for Strengthening Water Supply Asset Management

Report
31 July 2021
Ethiopia

SWS and USAID Lowland WASH Activity partnered with the Ethiopian government to install satellite and cellular-connected sensors for monitoring all mechanized boreholes in Afar to research how innovations in monitoring and asset management have potential to improve borehole functionality. This paper explores the rural water supply context in Afar and the establishment and operationalization of the Afar sensor monitoring network, including preliminary data analysis on uptime and downtime indicators for water service delivery derived from sensor reports.

Afar Asset Management System Uptake and Use

Report
21 July 2021
Ethiopia

This paper explores monitoring and asset management practices in the Afar Region of Ethiopia. Activities undertaken to strengthen asset management through a partnership of the USAID Lowland WASH Activity, mWater, and SWS as well as context of water supply monitoring in the region prior to intervention are detailed.

Ten Factors for Viable Rural Water Services

Flagship Report
21 July 2021
Uganda

This report presents 10 factors identified as essential to an effective and sustainable system for delivery for safe water in rural areas by SWS partner Whave through its work in Uganda. The factors focus on the importance of coordination of rural water sector actors, means through which this can be accomplished, the intermediate and long term roles of various forms of financing for professionalized maintenance services, and the relationships and incentives among key actors, including professional service providers, communities, donors and donor-funded NGOs, and national and local governments.

Delivering Safely Managed Water to Schools in Kenya

Brief
31 March 2021
Kenya

The brief summarizes findings of a survey of school WASH services in Kitui County, Kenya. Water resource risks are evaluated and recommendations for supporting the delivery of safely managed water services in schools are presented.

Professionalized Maintenance for Rural Water Service Provision: Toward a Common Language and Vision

Brief
24 March 2021
Uganda, Kenya, Ethiopia, Cambodia

To arrive at some consistency around language in the sector, this brief proposes “professionalized maintenance” as a common umbrella term for improved maintenance of rural water services and outlines 10 characteristics of a professionalized service. It concludes with implications for supporting the emergence and growth of such maintenance approaches, including the critical role of decentralized local government and the importance of strengthening regulatory policies and ensuring their application.

Delivering Safely Managed Water to Schools in Kenya

Report
24 March 2021
Kenya

This report presents the status of school WASH services in Kitui County, Kenya, drawing on a survey of 1,887 primary and secondary schools in 2019. The authors evaluate water resource risks in schools and consider policy responses to guide thinking on the delivery of safely managed water services informed by the performance of professional maintenance service providers in repairing water systems and monitoring water quality.

Kabarole District Pay-As-You-Fetch Research Report

Report
22 December 2020
Uganda

SWS partner IRC Uganda commissioned a study to investigate whether the Pay-As-You-Fetch (PAYF) model incentivizes preventive maintenance of hand pumps in Kabarole and Bunyangabu districts in Uganda. This research report presents key findings and recommendations for strengthening the PAYF model in this context.

Rethinking the Economics of Water in Rural Africa

Journal Article
29 May 2020

This journal article in the *Oxford Review of Economic Policy* explores why rural water is different for communities, schools, and health care facilities across characteristics of scale, institutions, demand, and finance. Authors present policy recommendations to (1) network rural services at scale, (2) unlock rural payments by creating value, and (3) design and test performance-based funding models at national and regional scales, with an ambition to eliminate the need for future, sustainable development goals.

Sustainability for Rural Water: Whave's Preventive Maintenance Model

Video
12 May 2020
Uganda

This video explains how SWS partner, Whave, implements its model for rural water service delivery by partnering with local governments and working with water committees to collect operation and maintenance tariffs appropriate for each community. By aligning incentives and recovering costs locally, the system can scale and increase the sustainability of rural water service provision.

Maintenance Approaches to Improve the Sustainability of Rural Water Supplies
Brief
31 January 2020
Kenya, Uganda, Ethiopia, India, Ghana, Mali, Central African Republic

This document reviews literature about the factors influencing the sustainability of rural water services, and the emerging maintenance approaches seeking to address these factors and improve service reliability.

Emerging Lessons on Sustaining Rural Water Services in Uganda: A Case Study of Whave's Preventive Maintenance Model
Brief
18 December 2019
Uganda

SWS partner, Whave, presents findings from over four years of water service delivery in more than 400 communities across Uganda in this case study. The report includes details on the preventive service model's methods, effectiveness, and financing.

Cliff Nyaga and Pauline Kiamba on Sustainable Rural Water Improvements in Kenya
Podcast
24 September 2019
Kenya

In this podcast, aired on Global Waters Radio, veteran development practitioners, Cliff Nyaga and Pauline Kiamba, share insights, best practices, and lessons learned from SWS efforts to create and sustain rural water supply improvements. They not only talk about the importance of preventative infrastructure maintenance, but also spotlight the key role that WASH forums play in improving governance accountability, strengthening WASH service delivery, and cultivating relationships with county governments and the residents they serve.

Factors Influencing Revenue Collection for Preventative Maintenance of Community Water Systems: A Fuzzy-Set Qualitative Comparative Analysis
Journal Article
8 July 2019
Uganda

Published in *Sustainability*, this study applied fuzzy-set Qualitative Comparative Analysis, to analyze combinations of conditions that influence regular payments for water service in resource-limited communities. To do so, the study investigated 16 communities participating in a new preventive maintenance program in the Kamuli District of Uganda under a public–private partnership framework.

Sustaining Rural Water: A Comparative Study of Maintenance Models for Community-Managed Schemes
Report
7 July 2019
Ethiopia, Uganda, Kenya

This study considers different variations of maintenance approaches across the rural water sector and provides a typology for characterizing maintenance service provision models, a framework for analyzing them, and an in-depth study of seven maintenance models that represent different cases from the typology of approaches. Based on this comparative analysis, the study outlines emerging trends and recommendations for broader consideration.

A Water Infrastructure Audit of Kitui County
Report
1 January 2019
Kenya

The University of Oxford conducted a water audit in Kitui County, Kenya, with SWS support, to fill an information gap between water coverage and quality of water services. The water audit, detailed in this report, located major rural water infrastructure and collected information on installation and operational performance to inform county planning, investment, institutional development, and dialogue on sustainability.

An Examination of the Causal Conditions to Successful Revenue Collection for Preventive Maintenance Services to Sustain Rural Water Systems
Brief
1 November 2018
Uganda

This research brief presents findings from a comparative analysis of the conditions that influence whether rural water users pay for preventive maintenance of water services in the context of Whave's work in the Kamuli District of Uganda. Analysis reveals that successful payment compliance cannot be attributed to any one condition, and a comprehensive understanding of how multiple factors influence payment compliance is necessary to increase water system sustainability.

Develop and Scale District Public-Private Partnerships that Sustain Reliable Rural Water Supply in Uganda
Fact Sheet
22 October 2018
Uganda

This fact sheet highlights the work of SWS partner, Whave, a regional service provider, in piloting a preventive maintenance service approach in three pilot districts of Uganda. Whave works to strengthen rural water service provision through signing preventive maintenance service agreements with communities, conducting factor mapping to better understand the network of actors and factors influencing the provision of preventive maintenance, and helping governments build an effective institutional and regulatory structure to establish and enforce preventive maintenance services.

Adopting a Risk-Based Approach to Rural Water Supply Sustainability in Kenya
Fact Sheet
18 October 2018
Kenya

This fact sheet presents findings from SWS's work in Kitui County, Kenya, where Oxford and UNICEF are developing, scaling-up, and testing the FundiFix model of providing a performance-based approach for maintaining water infrastructure. Learning about and documenting the risks and returns of this approach will provide insights and direction for government, private sector, and communities to establish an empirical basis for improving policy, practice, and investments for water security for the poor.

Real-Time Monitoring for Improved Water Services in the Ethiopian Lowlands
Brief
1 September 2018
Ethiopia

This brief provides a summary on the use of cellular and satellite connected sensors for near-time monitoring of rural water services in the arid, drought-prone, and mainly pastoralist lowlands of eastern Ethiopia (including Afar, Somali, and parts of Oromia and SNNPR). It is intended to help policy- and decision-makers at national and regional levels make appropriate use of this new technology to strengthen water services.

Preventive Maintenance Models for Sustainable Rural Water Services

Webinar
23 August 2018
Uganda, Kenya

SWS held a webinar on August 23, 2018, to present recent learning about preventive maintenance, and how it can help local governments, communities, and the private sector shift the paradigm from paying pump mechanics to fix broken pumps to paying them to keep water services running.

Collective Action

Driving Change: Strengthening Local Systems for Better Public Services

Flagship Report
15 December 2021

Through case studies and cross-cutting analysis from local WASH systems change processes in Ethiopia and Uganda, this guide offers insights for improving public services through multi-stakeholder collective action and action research. The case studies were written to demonstrate three main pillars of local systems change: (1) understanding systems, (2) using learning alliances to convene stakeholders and develop a vision and change agenda, and (3) using action research for developing and testing innovations and making direct changes to the system.

Collective Action in WASH: Lessons and Findings from 11 Collaborative Approaches

Flagship Report
27 September 2021

This report analyzes SWS experiences in applying collective actions approaches to the WASH sector, contributes to the evidence base on these approaches in real-world contexts, and provides recommendations to better support their use in programming. Researchers collected and analyzed data from 11 WASH contexts in Ethiopia, Uganda, and Kenya to define collective action approaches, investigate the factors and contexts that drive progress, and identify resource requirements.

Factors Driving Success in Collective Action Approaches to WASH

Brief
1 December 2021

This brief summarizes a flagship report that analyzed 11 case studies applying collective

approaches to WASH in Ethiopia, Uganda and Kenya. It presents study findings that reveal insights into real-world conditions that most facilitate collective action approaches in WASH as well as recommendations for implementing organizations, government agencies, and funders.

Pathways for securing government commitment for activities of collaborative approaches

Journal Article

9 February 2022

This journal article, published in the Journal of Water, Sanitation, & Hygiene for Development investigates collaborative approaches to WASH service delivery across 13 cases in Ethiopia and Uganda. Combining Qualitative Comparative Analysis with case knowledge, study results reveal key strategies for how collaborative approaches can obtain government commitment for their activities.

Pathways for Collaboratively Strengthening Water and Sanitation Systems

Journal Article

25 August 2021

Published in *Science of the Total Environment,* this journal article applies fuzzy-set Qualitative Comparative Analysis to investigate what drives or impedes progress for development programs that collaboratively strengthen water and sanitation systems. Examining 11 cases of collaborative approaches in Eastern Africa, the study revealed no single best pathway to success, instead, core elements worked together in different ways depending on the context.

Collective Action in WASH: Findings from SWS

Webinar

3 July 2021

Uganda, Kenya, Ethiopia

In June 2021, SWS held a webinar to share findings from four years of research on the use of collective action in WASH, as a culmination of the data collection and synthesis of 11 case studies. SWS practitioners presented an overview of results and insights, approaches taken, and a robust Q&A and discussion.

WASH Collaboration: Two Projects, One Result

Webinar

9 December 2020

Ethiopia

Since late 2016, the USAID Lowland WASH Activity and SWS have collaborated to improve rural water supplies for pastoralist communities in the drought-prone, lowland regions of Ethiopia. On Dec. 9, 2020, presenters Petros Birhane and Lemessa Mekonta discussed how the two projects collaborated to advance WASH development in Ethiopia, and how other projects might increase the sustainability and impact of infrastructure-focused support through partnership and learning.

Facilitating Collective Action for Sustainable Development Goal 6 through Learning Alliances
Video
26 June 2020
Ethiopia, Uganda

This video shares reflections from facilitators and participants of learning alliances in Ethiopia and Uganda, highlighting how they can be leveraged to build the collective capacity of stakeholders to frame, re-frame, and solve problems in the rural water sector.

Adapting Collaborative Approaches for Service Provision to Development Contexts: Expert Panel Results
Brief
6 May 2020

SWS is working to better understand and improve collaborative approaches to strengthening WASH service delivery. This research brief summarizes the findings from an expert panel that evaluated the importance of various factors influencing collaborative approaches in international development contexts.

Defining Collective Action Approaches in WASH
Brief
16 April 2020
Uganda, Kenya, Ethiopia, Cambodia

This brief presents a definition of collective action approaches and a working typology of the range of related approaches based on literature review and interviews with experts and SWS partners who are working to implement collective action approaches to improve the sustainability of WASH services in Ethiopia, Uganda, Kenya, and Cambodia.

Adapting Collaborative Approaches for Service Provision to Low-Income Countries: Expert Panel Results
Journal Article
25 March 2020

This journal article, published in *Sustainability,* builds on existing literature to improve understanding of collaborative approaches in international development. With the support of

USAID, researchers convened a panel of experts to evaluate the importance of a series of factors that influence collaborative approaches for service delivery in limited-governance contexts.

What is a WASH Learning Alliance?
Video
30 August 2019
Uganda

In this video, Martin Watsisi from SWS partner, IRC Uganda, talks about learning alliances in Kabarole District, Uganda, and their role in improving WASH sector coordination.

Finding New Solutions to Strengthen Local Systems and Improve WASH Service Delivery and Sustainability
Fact Sheet
1 November 2018
Ethiopia, Uganda

This fact sheet highlights SWS's work in Ethiopia and Uganda, where SWS is working with local actors to better understand and strengthen local systems for rural water and small-town sanitation service delivery. In each location, SWS is promoting and facilitating learning alliances as a vehicle for more sector coordination and innovation.