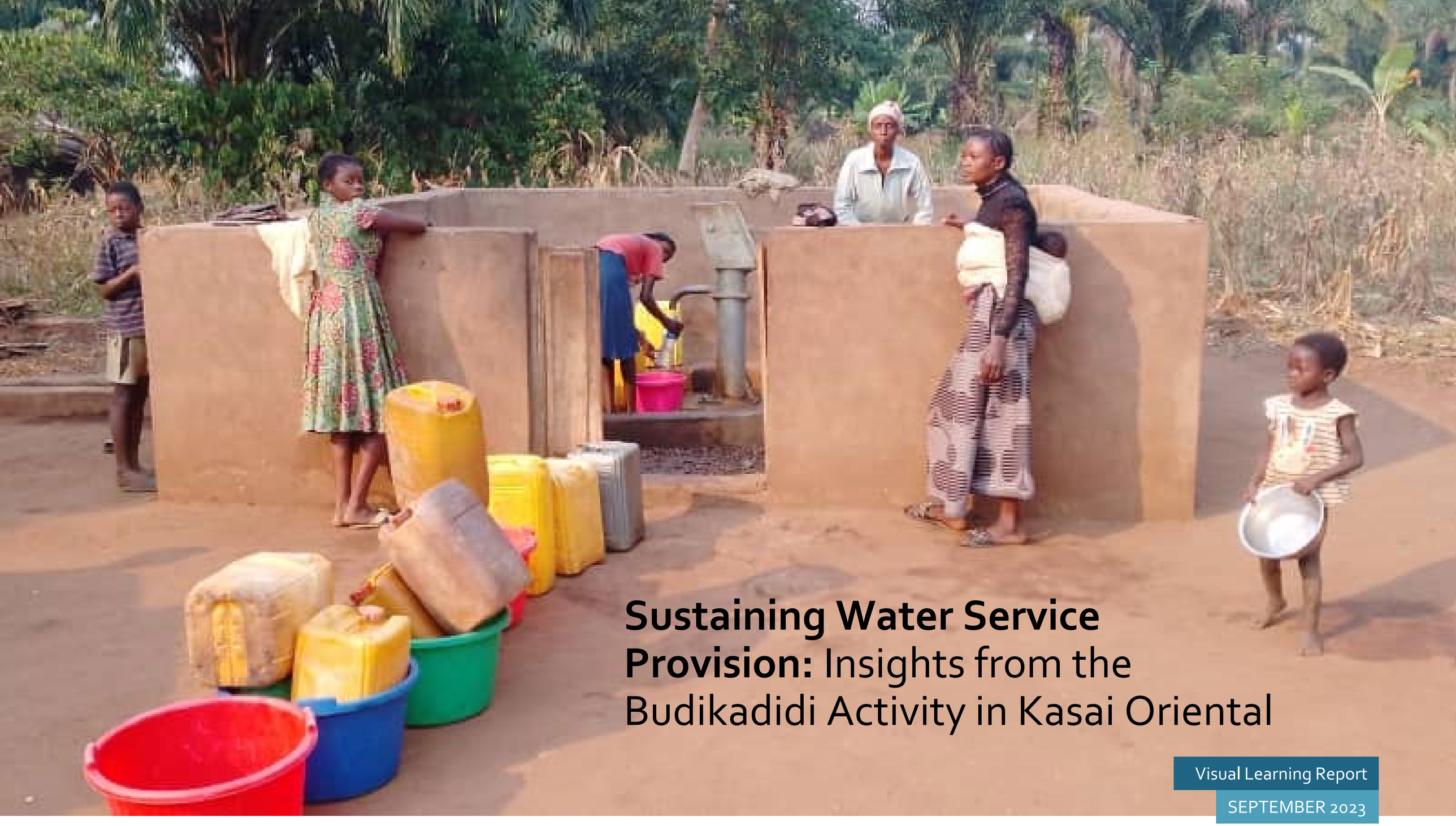

Sustaining Water Service Provision: Insights from the Budikadidi Activity in Kasai Oriental

Visual Learning Report

SEPTEMBER 2023

USAID FROM THE AMERICAN PEOPLE

PRO-WASH
Practices, Research and Operations in Water, Sanitation and Hygiene

SCALE
Strengthening Capacity in Agriculture Livelihoods and Environment

CRS
CATHOLIC RELIEF SERVICES

DISCLAIMER

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RECOMMENDED CITATION

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CREDITS

Photographs by Louis Lubangi and Guguy Kanika of the Budikadidi Team. Photographs are from the study conducted in June 2023 and as such may have lower resolution.

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Contents

Acronyms

English	French	Description
BHA	BHA	USAID's Bureau for Humanitarian Assistance
CA	CA	Community Assistant
CDC	CAC	Community Development Committee
CDF		Congolese Francs
	CNAEHA	National Water, Hygiene, and Sanitation Committee
	CPAEHA	Provincial Water, Hygiene, and Sanitation Committee
CRS		Catholic Relief Services
	DAS	Directorate of Sanitation and Health
DRC	RDC	Democratic Republic of Congo
DZ		
	ETD	Decentralized Territorial Entity
IGA	AGR	Income Generating Activity
JMP		Joint Monitoring Programme (UNICEF/WHO)
	OCE	Congolese Water Office
	ONHR	National Rural Hydrogeology Office
RFSA		Resilience Food Security Activity
TZ		
WHO	OMS	World Health Organization
WMC	CGE	Water Management Committee
UNICEF	UNICEF	United Nations Children's Fund
USAID	USAID	United States Agency for International Development
USD	USD	United States Dollar

Executive Summary

This learning report summarizes the lessons and insights related to constructing and supporting water supply infrastructure from Budikadidi's 7 years working in the Kasai Oriental Province in the Democratic Republic of the Congo (DRC).

The **Budikadidi** ("Self-Reliance") resilience food security activity (RFSA), funded by the United States Agency for International Development Bureau for Humanitarian Assistance, aimed to improve nutrition for pregnant and nursing mothers and children under the age of 2, using a cross-cutting gender transformative approach. This 7-year activity brought a multisectoral suite of agriculture, livelihood, and nutrition interventions to over 470 communities. For example, Budikadidi introduced fortified foods, strengthened value chains, and improved childcare and feeding practices. The RFSA's interventions also strengthened local governance systems, built social cohesion between communities, increased access to savings and lending services, improved water and sanitation using private sector-focused approaches, and combated harmful gender norms.

Overall, this report has three aims:

1. To summarize Budikadidi's strategy for water service provision and the differences between small piped networks, boreholes, and spring sources against a changing backdrop of national policy. **Section 1: Background.**
2. To share learnings from a mixed-methods endline assessment of 29 water systems (boreholes and spring sources) focused on water service provision sustainability. Conducted in June–July 2023, this endline assessment explored the perspectives of both Water Management Committees (WMCs) and water users. **Section 2: Assessment.**
3. To reflect on lessons learned and opportunities for future water service provision programming in the DRC. **Section 3: Lessons and Recommendations.**

The activity operated in a dynamic and rapidly changing policy environment, yet the results are encouraging and offer lessons for pursuing water-service-provision sustainability in other regions of the DRC and elsewhere.

The study highlights five key findings:

1. **Value of a systems approach.** The involvement of public and private sector stakeholders at the village, zonal, and national levels created a more robust market system with built-in feedback loops and redundancies. While imperfect, this process allowed WMCs to bounce back more quickly from breakdowns and successfully pay for repairs.
2. **Significance of local leadership**. The involvement of local leadership—often through village chiefs—and the alignment of Budikadidi's governance-systems strengthening interventions enabled local management structures to use local leaders as arbitrators and advocates. Where village chiefs were well aligned with the RFSA's objectives (in most cases), their role was key to institution-building and collaboration.
3. **Benefit of parallel social cohesion interventions.** Budikadidi's strategy also involved activities to strengthen social cohesion. This study suggests that the areas with stronger social cohesion had better functioning WMCs and, therefore, more sustainable water points.
4. **Importance of strong financial-management structures within WMCs.** Most of the reported challenges by WMCs related to financial management, including payment exemptions, committee remuneration, and side income generation. More can be done to strengthen training on these aspects and create guidelines to support future WMCs.
5. **Usefulness of consistent data and monitoring.** The study also highlighted the importance of understanding the experiences of WMCs and water users alongside utilizing standard databases for water point data management.

Introduction

This learning report summarizes the lessons and insights related to constructing and supporting water supply infrastructure from Budikadidi's 7 years working in the Kasai Oriental Province in the Democratic Republic of the Congo (DRC). The activity operated in a dynamic and rapidly changing policy environment, yet the results are strong and offer good lessons for pursuing water service provision sustainability in other regions of the DRC.

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The report has been formulated visually and in a landscape layout, with the goal of increased engagement with the insights. As such, the report has less text and more visual forms of communication. Objects (figures, tables, images, and boxes) are not numbered. It can be presented as a slide show, read as a traditional report, or used as individual pages to use for future programming.

ABOUT BUDIKADIDI

The **Budikadidi** ("Self-Reliance") resilience food security activity (RFSA), with funding from the United States Agency for International Development (USAID) Bureau for Humanitarian Assistance (BHA), has aimed to improve nutrition for pregnant and nursing mothers and children under the age of 2, using a cross-cutting gender transformative approach.

Over 470 communities in central DRC have participated in RFSA interventions. Catholic Relief Services (CRS) led this 7-year activity to bring a multisectoral suite of agriculture, livelihoods, and nutrition interventions, including introducing fortified foods, strengthening value chains, and improving childcare and feeding practices in Kasai Oriental Province.

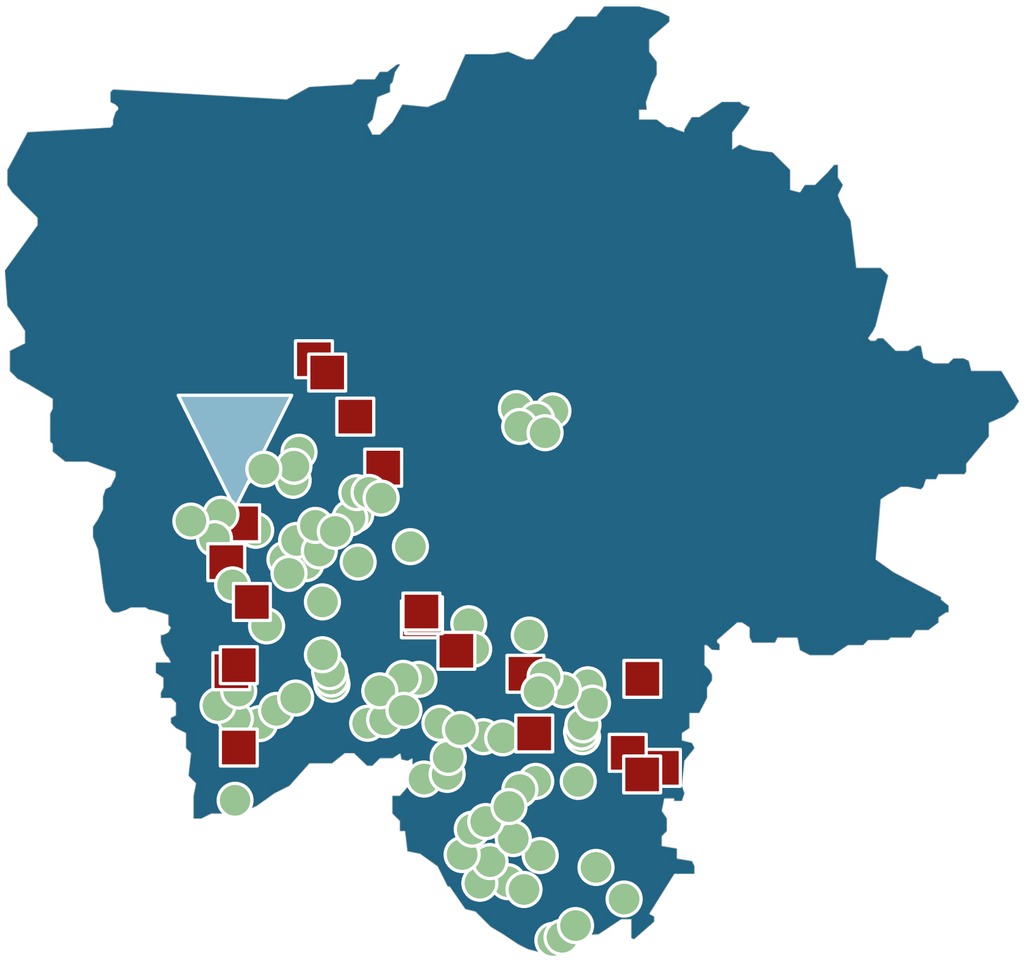
Interventions also strengthen local governance systems, build social cohesion between communities, increase access to savings and lending services, improve water and sanitation using private sector-focused approaches, and combat harmful gender norms.

AT A GLANCE

Water Impacts in Budikadidi

Over 7 years, Budikadidi sought to improve the access to and use of safe water for communities. The RFSA constructed 252 water points (boreholes, springs, and a mini-network), serving 332,829 people with access to safe water for the first time.

Kasai Oriental Province



Budikadidi has also aimed to foster a strong enabling environment to manage and maintain the water points with a view of a sustainable water system.

Inclusive Management

Over the life of the activity, participants formed 268 WMCs representing 30,010 members, 60% of whom are women and young people. The WMCs were trained in management (administrative, financial, and technical) and governance of the water service.

Maintenance and Repair

Over the life of the activity, WMCs paid for and managed 45 breakdowns. These repairs included collaborating with the private sector for spare parts and 16 RFSA-trained mechanics.

Water Quality

Over the life of the activity, more than 4,500 tests were conducted, with 95% of water points qualified as potable according to drinking water standards according to WHO (Conductivity, pH, Turbidity, Coliforms Arsenic, Nitrate, Nitrite, Iron, Fluoride, Manganese, Ammonia) with the portable laboratory Potalab+.




Section 1
Background

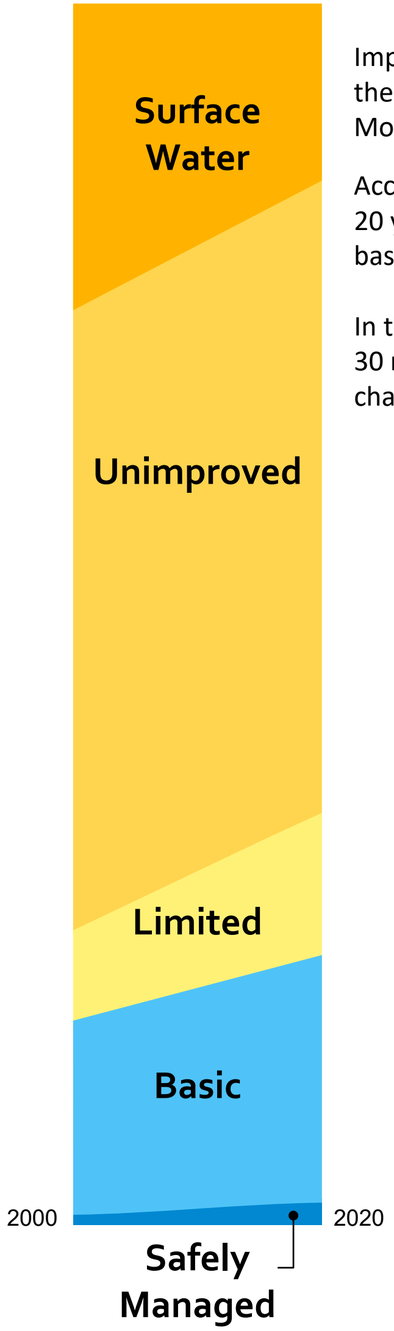
This section lays a foundation for understanding the challenges and opportunities related to water service provision in the DRC.

Section 1A: Foundations outline the policies, strategies, and institutions that govern the access to and use of water in the DRC.

Section 1B: Strategy describes Budikadidi's vision for WMCs and their supporting systems—construction, maintenance, repair, and water quality testing within Kasai Oriental—the working area of the Budikadidi activity. Notably, these governance structures are slightly different for the three different forms of water access promoted by Budikadidi: small-scale piped systems, boreholes, and spring sources.

DEMOCRATIC REPUBLIC OF CONGO

Water Context



Improvements in rural water access from 2000 to 2020 in the DRC as indicated in the WHO and UNICEF's Joint Monitoring Program (JMP).[1]

Access to safely managed water has improved over the last 20 years, but significant work is still to be done to ensure basic or limited forms of safely managed water.

In the DRC, access to river water and long trips (more than 30 minutes roundtrip) to access water both offer significant challenges to improvements.

Surface Water	Drinking water directly from a river, dam, lake, pond, stream, canal, or irrigation canal.
Unimproved	Drinking water from an unprotected dug well or unprotected spring.
Limited	Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip, including queuing.
Basic	Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip, including queuing.
Safely Managed	Drinking water from an improved water source that is accessible on premises, available when needed, and free from fecal and priority chemical contamination.

Over 50% of Africa's freshwater reserves are in the DRC, yet only 22% of rural households can access safely managed or basic drinking water.[2]

Rapid population growth has tempered improvements in water access over the last 20 years in the DRC.[3]

Nonetheless, the use of surface water has decreased from 18% to 8% over the last 2 decades due to an increase in unimproved water sources.[4]

There is much to do to increase access to improved water (basic and safely managed), not only for drinking but also for broader domestic use.

1. JMP (2020). washdata.org
2. USAID. (2021). *Water Resources Profile Overview: Democratic Republic of the Congo* (Water Resources Profile Series).
3. USAID. (2020). *USAID Water and Development Country Plan for the Democratic Republic of Congo (DRC)*
4. INS (2019). *Enquête par grappes à indicateurs multiples, 2017-2018, rapport de résultats de l'enquête*. Kinshasa, République, Démocratique du Congo.

DEMOCRATIC REPUBLIC OF CONGO

Water-Related Ministries and Platforms

A variety of ministries and coordination systems are involved in the governance and oversight of water service provision, including networks, boreholes, and springs. Most ministries have both national and service authority level operations to support collaboration. The six most influential ministries in relation to water service provision and their relevant service authorities are summarized below.

Ministry of Public Health	**Health Zones and Health Areas** The DRC is divided into 515 health zones and 8,126 areas, which are responsible for the village-level support of water systems and sources. The health zones work closely with the provincial branches of the National Rural Hydrogeology Office.
Ministry of Rural Development	**National Rural Hydrogeology Office (ONHR)** The ONHR, formerly the National Hydraulic Service, is responsible for managing rural water supply, borehole drilling, and coordinating non-governmental organization stakeholders. It is also responsible for training communities in servicing and maintaining drinking water systems. The ONHR has 17 regional offices across the country to coordinate and collaborate with partners.
Ministry of Water Resources and Electricity (Formerly Ministry of Energy and Hydraulic Resources)	**Congolese Water Office (OCE)** The water authority is responsible for planning, implementing, managing, and monitoring facilities and installations relating to the management and development of water resources. The OCE is also responsible for collecting and managing basin-level hydrogeological data and information.
Ministry of Planning	**National Water, Hygiene, and Sanitation Committee (CNAEHA)** Hosted by the Ministry of Planning, the CNAEHA is an inter-ministerial structure to harmonize and coordinate policies and strategies related to drinking water, hygiene, and sanitation services. The committee is mirrored in each province with a Provincial Water, Hygiene, and Sanitation Committee (CPAEHA).
Ministry of Environment and Sustainable Development	**Directorate of Sanitation and Health (DAS)** Housed within the Ministry of Environment and Sustainable Development, the DAS is responsible for safe wastewater and stormwater management, water quality monitoring, and hygiene awareness.
Ministry of Decentralization	**Decentralized Territorial Entities (ETDs)** ETDs regulate the conservation, use, and protection of water resources at a city, commune, sector, or chiefdom level within each province. Create a structure for public water services; set pricing for water services; manage drought, pollution, and flooding; and manage wastewater and stormwater. The ETDs work in collaboration with provincial governments.

Information identified from the following sources:

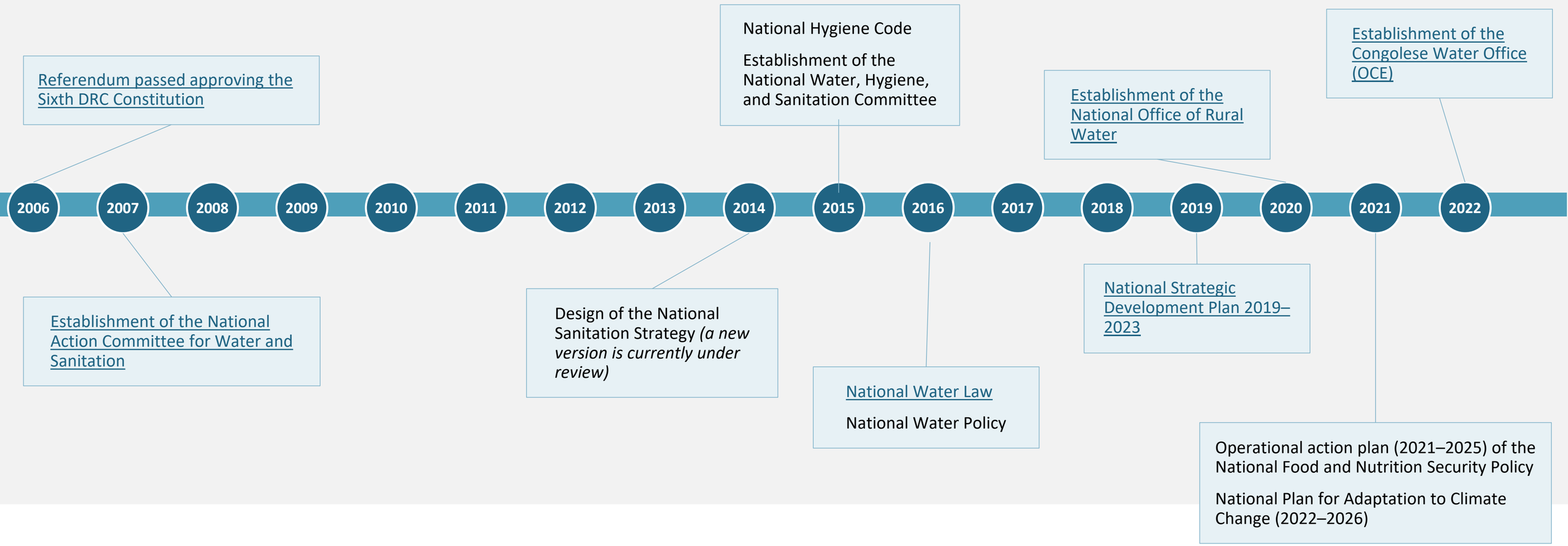
- USAID. (n.d.). *Democratic Republic of the Congo Water and Sanitation.*
- USAID. (2020). *USAID Water and Development Country Plan for the Democratic Republic of Congo (DRC).*
- WASH Consortium RDC. (2016). *Leçons apprises pour la durabilité des services eau, hygiène et assainissement en milieu rural en RDC : Rapport à mi-parcours du Consortium WASH RDC.*

DEMOCRATIC REPUBLIC OF CONGO

Water-Related Policies and Strategies

Budikadidi was implemented in a rapidly changing water policy in DRC. As such, the RFSA needed to adapt to inform and align new strategies, codes, and laws.

This timeline summarizes the adoption of the central policies and strategies in the DRC. Where applicable, hyperlinks to the full documentation are provided.



BUDIKADIDI
Piped Water Networks

Stakeholder Roles and Responsibilities

Public Sector · Private Sector · Supporting Groups · Service Provider · Users

This illustration summarizes Budikadidi's vision for the roles and responsibilities of the governance stakeholders of the two newly constructed small-piped water systems.

Technical and Donor Support

Budikadidi contributed technical and financial support for designing and constructing water networks.

Budikadidi' s support was made possible by USAID's BHA.

Traditional Village Chief

Prevent social conflict between water users, governance structures, and operators.

Mobilize community members to protect water points and pay for use.

Water Regulator

Provincial Board of Drinking Water Supply Systems

Provide regulatory oversight for water systems and strengthen local capacity.

Monitor the application of the Water Law for water systems.

Sector Chief

Owns the system and oversees the private sector operator through local chiefs and water user association.

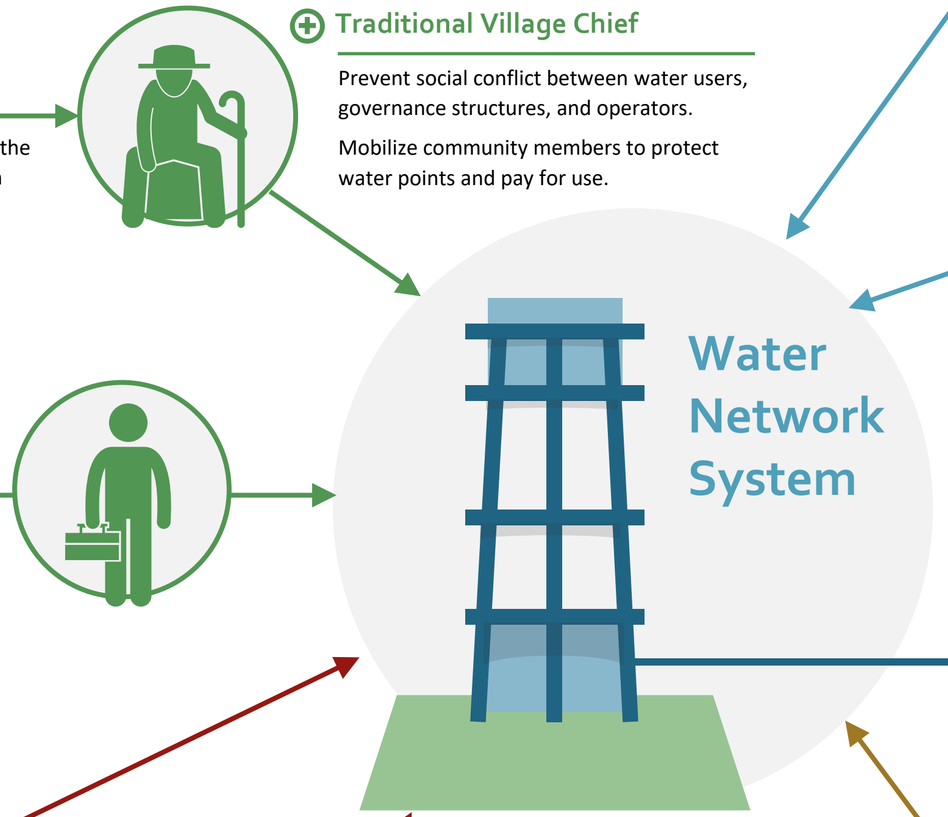
Coordinates regulation and inspections and ensures accountability.

Religious Groups and Local Civil Society Organizations

Priests, Pastors, and Local Organizations

Encourage the protection and proper use of water systems.

Provide accountability for the operator, sector chief, and providential institutions as a neutral moderator and gatekeeper.



Health Zone

Provincial Health Division

Assure water quality and potability according to WHO standards.

Manage and coordinate epidemic response.

Zonal WASH Tech

Conduct water testing, share results with communities, and develop corrective actions such as chlorination or social mobilization.

Water Users

Access water through village taps.

Contribute regularly to the operation and maintenance of the system.

Department of Rural Hydraulics

Provincially based National Office of Rural Hydraulics

Assure norms and standards for the construction and repair of water systems.

Oversee mapping and functionality monitoring for water systems with a focus on boreholes.

Monitor drilling companies and deliver certificates of completion for construction.

Construction Firms

Provide construction and support services to find water and build water systems. This includes Feasibility Consultants, Drillers, Solar System Experts, Plumbers, and Reservoir Masons.

Operation Firm

Provide day-to-day operations, maintenance, and repair of the water system.

Water User Association

Community-Based Management Group

Protect and maintain infrastructure for sustainability.

Provide accountability towards users and the contracting authority.

BUDIKADIDI

Boreholes

Stakeholder Roles and Responsibilities

Public Sector | Private Sector | Supporting Groups | Service Provider | Users

This illustration summarizes Budikadidi's vision for the roles and responsibilities of the governance stakeholders of boreholes and handpumps.

Technical and Donor Support

Budikadidi contributed technical and financial support for designing and constructing water networks.

Budikadidi' s support was made possible by USAID's BHA.

Traditional Village Chief

Prevent social conflict between water users and the management committee.

Mobilize community members to protect water points and pay for use.

Operate as the liaison between the WMC, village assembly, and development committee.

Water Management Committee

Community-Based Management Group

Protect and maintain infrastructure for sustainability.

Provide accountability towards users and the contracting authority.

Health Zone

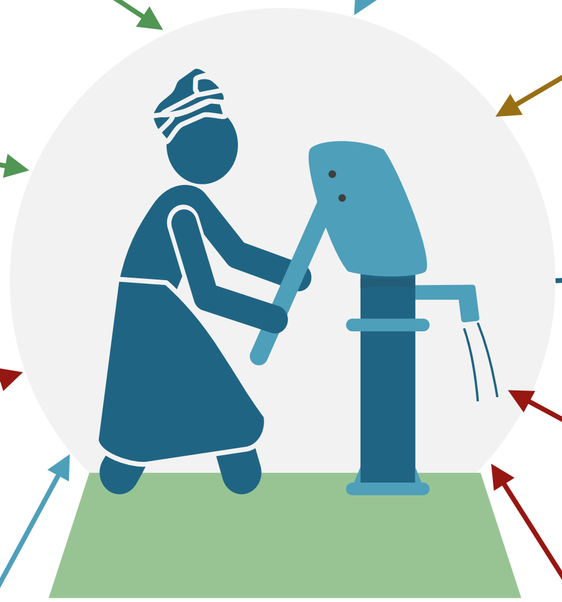
Provincial Health Division

Assure water quality and potability according to WHO standards.

Manage and coordinate epidemic response.

Zonal WASH Tech

Conduct water testing, share results with communities and develop correction actions such as chlorination or social mobilization.



Water Users

Access water through handpumps.

Contribute regularly to the operation and maintenance of the system.

Department of Rural Hydraulics

Provincially-Based National Office of Rural Hydraulics

Assure norms and standards for the construction and repair of water systems.

Oversee mapping and functionality monitoring for water systems with a focus on boreholes.

Monitor drilling companies and deliver certificates of completion for construction.

Construction Firms

Provide construction and support services to find water and build water systems. This includes Feasibility Consultants, Drillers, and Handpump Installers.

Craftsperson Mechanics

Provide targeted support to repair broken handpumps.

Budikadidi trained 19 craftsperson mechanics in collaboration with public and private support.

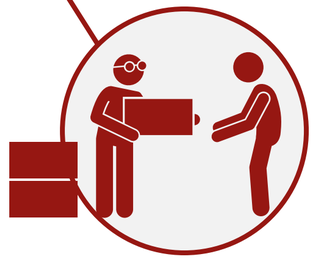
Religious Groups and Local Civil Society Organizations

Priests, Pastors, and Local Organizations

Encourage the protection and proper use of the borehole and handpump.

Provide accountability for the operator, sector chief, and providential institutions as a neutral moderator and gatekeeper.

Spare Parts Supplier



Supply pump spare parts through a shop in the town of Mbujimayi, accessible to all villages in the Kasai Oriental region.

BUDIKADIDI

Spring Sources

Stakeholder Roles and Responsibilities

Public Sector | Private Sector | Supporting Groups | Service Provider | Users

This illustration summarizes Budikadidi's vision for the roles and responsibilities of the governance stakeholders of spring sources.

Springs are the least complex form of water service provision supported by Budikadidi.

Technical and Donor Support

Budikadidi contributed technical and financial support for designing and constructing water networks.

Budikadidi' s support was made possible by USAID's BHA.

Sector Chief

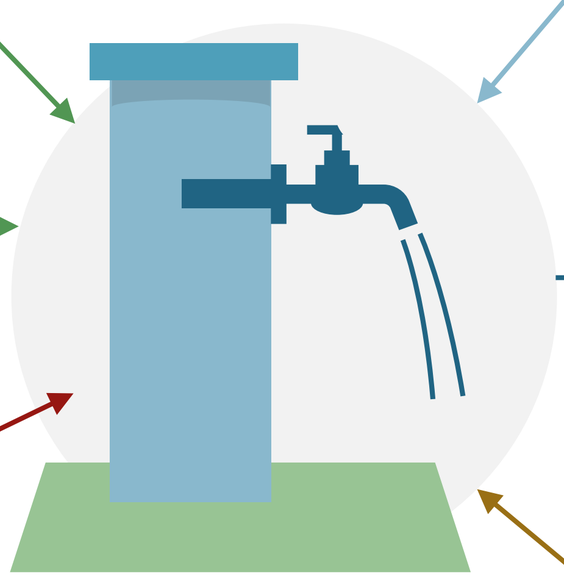
Owns the system and oversees the private sector operator through village chiefs.

Coordinates regulations and inspections and provides accountability.

Traditional Village Chief

Prevent social conflict between water users and the management committee.

Mobilize community members to protect water points and pay for use.



Water Users

Access water through springs.

Contribute regularly to the operation and maintenance of the system.

Health Zone

Provincial Health Division

Assure water quality and potability according to WHO standards.

Manage and coordinate epidemic response.

Zonal WASH Tech

Conduct water testing, share results with communities, and develop corrective actions such as chlorination or social mobilization.

Department of Rural Hydraulics

Provincially based National Office of Rural Hydraulics

Assure norms and standards for the construction and repair of water systems.

Oversee mapping and functionality monitoring for water systems with a focus on boreholes.

Monitor drilling companies and deliver certificates of completion for construction.

Construction Firms

Provide construction and support services to find water and build water systems. This includes masons and experts in spring tapping.

Religious Groups and Local Civil Society Organizations

Priests, Pastors, and Local Organizations

Encourage the protection and proper use of water systems.

Provide accountability for the operator, sector chief, and providential institutions as a neutral moderator and gatekeeper.

Water Management Committee

Community-Based Management Group

Protect and maintain infrastructure for sustainability.

Provide accountability towards users and the contracting authority.

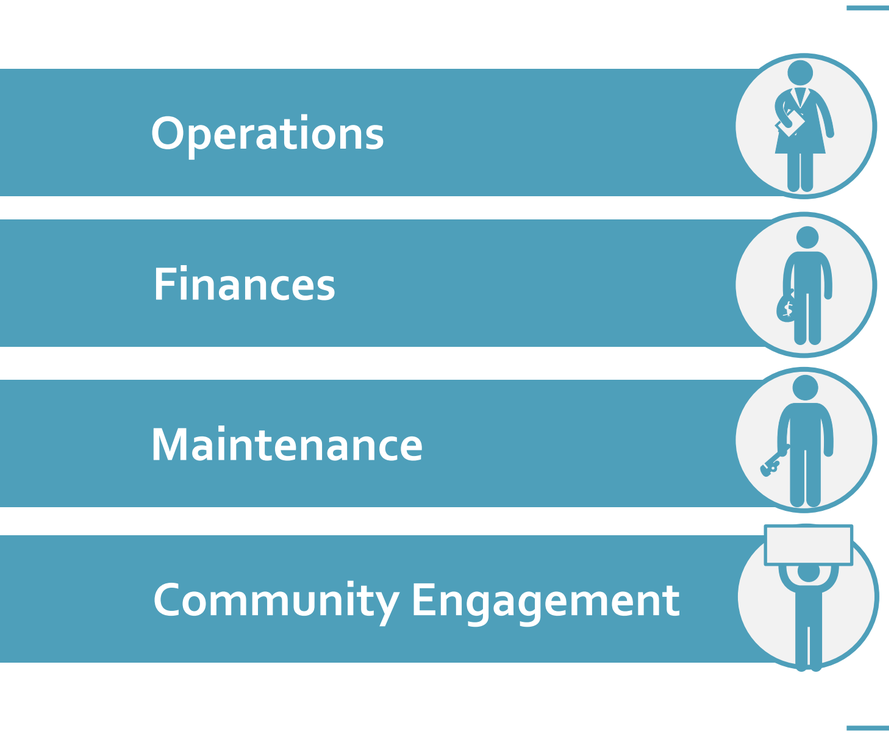
BUDIKADIDI

Water Management Committees

To support the governance of newly constructed water points, Budikadidi has formed and supported seven-member **WMCs** that oversee springs and boreholes in the communities of focus. These committees are responsible for the governance of the water points, including fee collection, maintenance, and creating rules for their use.

Budikadidi aimed to create WMCs elected by the community to oversee the local management of their water supply system.

The RFSA sought to form WMCs that were effective, transparent, inclusive, and accountable.



Committee Roles and Responsibilities

President

- Coordinates all committee activities and represents the external persons' committee.
- Organizes meetings and is responsible for the smooth running of the water system.

Vice-President

- Assists the President in their duties.
- Assists the president in preparing the agenda for meetings.
- Facilitates discussion of meeting themes.
- In the absence of the president, assumes the president's duties.

Secretary

- Administers the committee, prepares and organizes meetings.
- Takes the minutes of each meeting.
- Ensures the safekeeping of all committee documents.
- Committee member responsible for fund management.
- Responsible for the accounting book.

Treasurer

- Collects funds, fees, and other sources of revenue.
- Issue receipts for money received.
- Ensures the security of funds.
- Responsible for cash book management.

Mechanic

- Manages the technical aspects of the water point.
- Performs regular maintenance.
- Carries out minor repairs.
- Reports on operations and maintenance activities.

Hygiene Promoter

- Raise community awareness of water point ownership.
- Organize events to protect the environment of the work.
- Distributes tokens to users at the water point/checks exemptions.

Cashier

- Collects charges at the distribution point.
- Makes daily payments of collected expenses.

BUDIKADIDI

Water Point Maintenance System

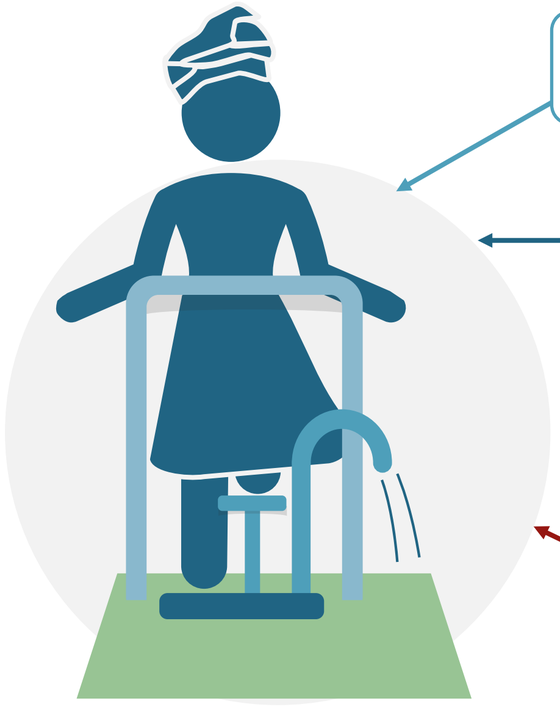
Budikadidi supported the sustainable provision of improved water services by fostering an operation and management system in collaboration with the WMCs for corrective, preventative, and continuous maintenance. This work was conducted with the Provincially-Based ONHR as well as the lead firm Vergnet and fostered two types of mechanics—centrally located craftsperson mechanics for larger repairs and village-based mechanics for basic maintenance and repairs.

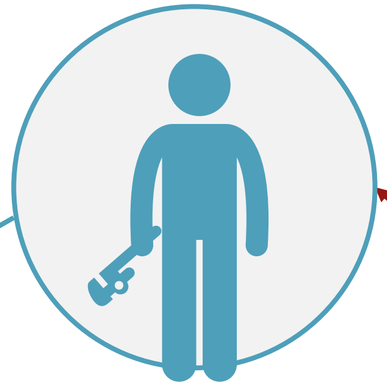
Preventative Maintenance

Regular maintenance, which briefly interrupts water services, is carried out to replace the smallest mechanical parts whose failure could lead to breakdowns and major mechanical failures.

Continuous Maintenance

Maintenance carried out without interrupting water services, including cleaning and fencing.





Continuous + Preventative Maintenance

Handpump Mechanic (Fontiner)

Each committee had a water technician trained in the basic upkeep of protected springs or repair of installed foot pumps.

Training

CRS worked with Vergnet Hydro, a French water pump & hydrology company based in Kinshasa, to provide in-depth training to water committees on complex breakdowns, which may require removing and replacing the pump manual rod-transmission and parts.

Community Members — **Continuous** Maintenance

Community members supported continuous maintenance at the water points encouraged by behavior change initiatives. This included community meetings around community water supply, activities to minimize water wastage, supporting good hygiene at water points, ensuring water points are cleaned, reporting breakdowns to water committees, and minimizing the potential for standing water.

Lead Firm – Vergnet

The RFSA successfully lobbied the supplier Vergnet to set up a sales outlet in Mbujimayi to supply spare parts, making it easier for communities to obtain them in case of need or breakdown.

Budikadidi has helped distribute the catalog of parts available in Mbujimayi, along with their prices. This ensures that WMCs can obtain original parts at a price the original supplier (Vergnet) sets. The presence of this parts store, close to the Miabi Territory, helps to facilitate regular pump maintenance and reduce downtime, which is usually linked to the time it takes to order parts from Kinshasa.

Corrective Maintenance

Craftsperson Mechanics

In collaboration with ONHR, the private pump supplier company (Vergnet), nine local craftspeople repairing major pump breakdowns have been set up and are working to support the installed pumps' maintenance and repair.

Together with the French pump supplier Vergnet, the RFSA formed associations of artisan repairers, two in Miabi and two in Tshilundu, who live in the area and provide corrective maintenance support.

Corrective Maintenance

Major repairs are required to resolve a fault that has caused the system to suspend or fail to operate. Corrective maintenance may require replacing the smallest cheapest parts or may require a major repair/replacement activity.

Section 2
Assessment

This section presents results from an endline assessment of 29 WMCs.

The section begins with a brief description of the assessment methodology.

This is followed by the study's results, which have been divided into five parts: operations, finances, maintenance, community engagement, and sustainability.

Assessment Methodology

To explore the experiences of WMCs, Budikadidi partnered with PRO-WASH & SCALE to conduct a rapid mixed-methods study of 29 water points across all three of Budikadidi's health zones.

The mixed-methods approach used semi-structured focus group discussions with members of 29 WMCs and semi-structured interviews with 4–5 users from each water point. Of the 29 water points, 14 were boreholes, and 15 were spring sources, representing 11% of the RFSA's water points.

Study Objectives

The study aimed to understand the experiences of WMCs relating to operations, finances, and maintenance. The study also aimed to explore how users perceive the transparency, inclusivity, accountability, and efficacy of committees.

Data Collection

In June 2023, three WASH Officers in the Budikadidi RFSA conduced focus groups and interviews in French. Data was collected using paper forms and entered in Kobo Toolbox.

Analysis and Sensemaking

The results were analyzed collaboratively between Budikadidi and PRO-WASH & SCALE. First, a 2-hour online sensemaking workshop was done to identify key themes from the study. Second, results were translated into English using an automatic translator and analyzed using content analysis procedures and rapid thematic coding. Results were visualized and clustered into key thematic areas related to the formation and function of water user committees. Results were then reviewed collaboratively by the study team through a series of online calls.

Results have been divided into five parts: operations, finances, maintenance, community engagement, and sustainability.

A Operations

B Finances

C Maintenance

D Community Engagement

E Sustainability

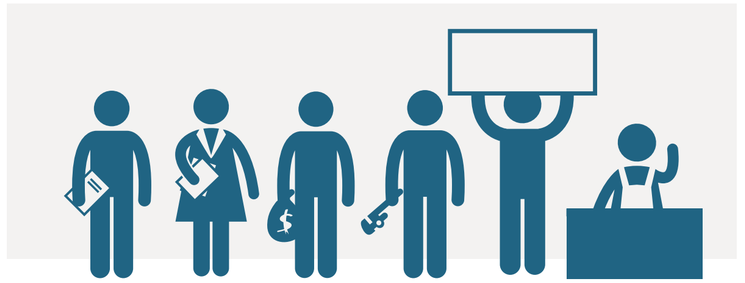
Section 2A Committee Operations

OPERATIONS

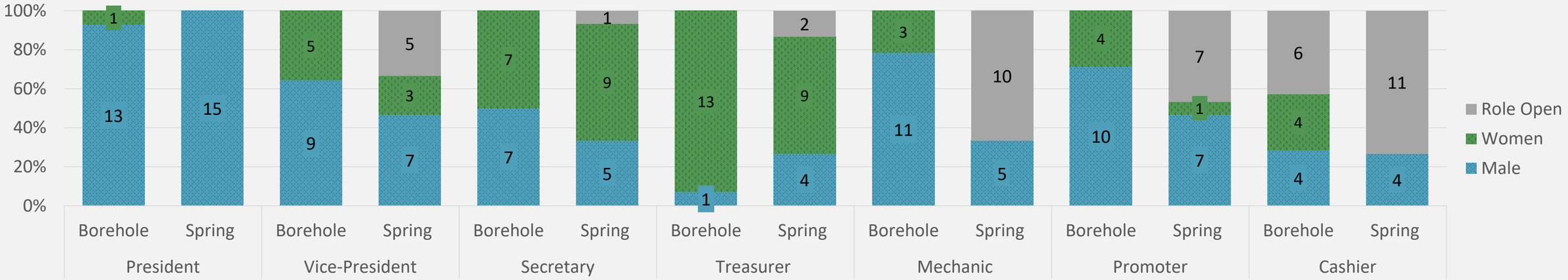
Committee Roles and Responsibilities

Budikadidi has successfully established strong community-based structures for water involving both village chiefs and Community Development Committee (CDC) members for the governance and accountability of water supply.

WMCs were set up to ensure the day-to-day management of water points. WMCs were trained in administrative, technical, and financial management of facilities.



Stacked bar chart representing the relative proportion of men and women for each role in WMCs by springs and boreholes.



President

- Coordinates all committee activities and represents the external persons' committee.
- Organizes meetings and is responsible for the smooth running of the water system.

Vice-President

- Assists the President in their duties.
- Assists the president in preparing the agenda for meetings.
- Facilitates discussion of meeting themes.
- In the absence of the president, assumes the president's duties.

Secretary

- Administers the committee, prepares and organizes meetings.
- Takes the minutes of each meeting.
- Ensures the safekeeping of all committee documents.
- Committee member responsible for fund management.
- Responsible for the accounting book.

Treasurer

- Collects funds, fees, and other sources of revenue.
- Issue receipts for money received.
- Ensures the security of funds.
- Responsible for cash book management.

Mechanic

- Manages the technical aspects of the water point.
- Performs regular maintenance.
- Carries out minor repairs.
- Reports on operations and maintenance activities.

Hygiene Promoter

- Raise community awareness of water point ownership.
- Organize events to protect the environment of the work.
- Distributes tokens to users at the water point/checks exemptions.

Cashier

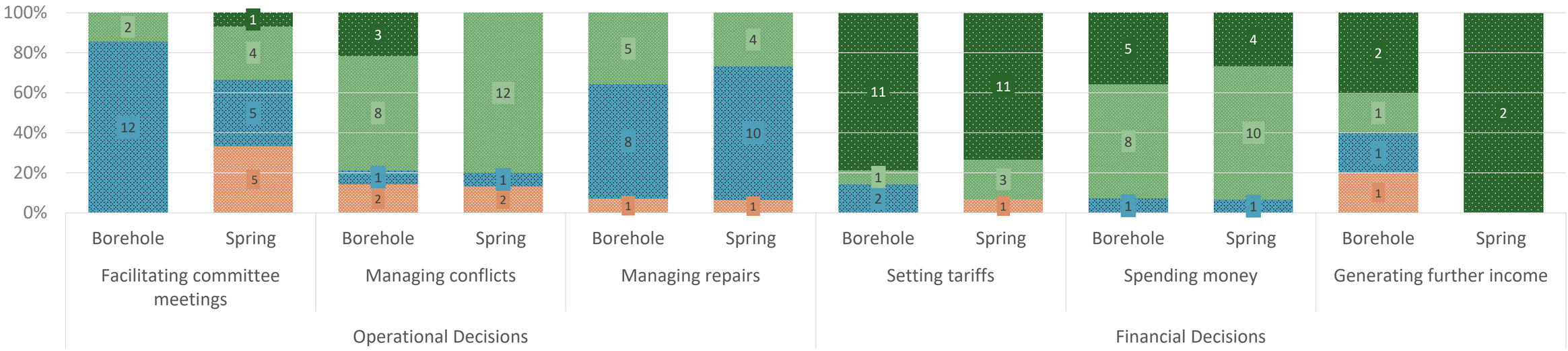
- Collects charges at the distribution point.
- Makes daily payments of collected expenses.

OPERATIONS

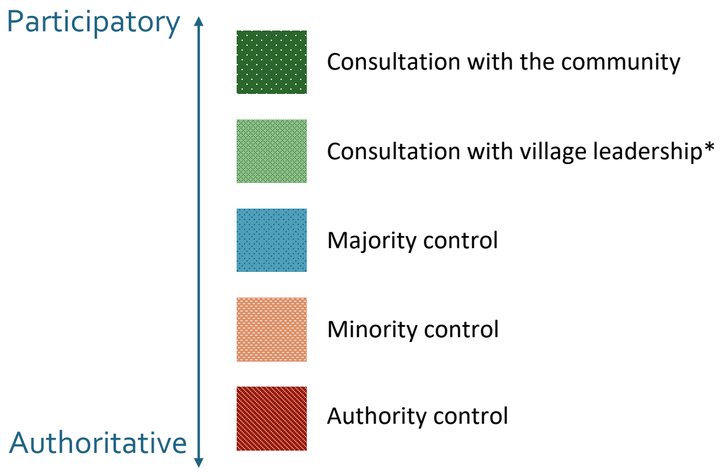
Decision Making

One of the most important tasks of WMCs is making decisions. To explore how WMCs make decisions within the committees, we asked WMCs how they make five key decisions using a range of responses from authoritative to participatory decision-making modalities. We then also asked what other types of decisions are taken directly by the committee and which are decided through consultation with the community. There are several examples provided as a reference. Notably, the WMCs did not describe any of the decisions as decided by the president alone. Only a limited number were decided by a minority of committee members. Future activities can adopt the decision-making ladder to understand the transparency and inclusivity of WMCs.

Stacked bar chart showing the relative proportion of decisions made by participatory or authoritative modalities, by decision and water point type.



- **Legend**: Ladder of decision-making styles from authoritative to participatory modalities.



*Village Chief and CDC

Committee Decisions

- "The decision to move a hut for meetings not far from the water point, the construction of a toilet for customers. The maintenance program of the water point, the regulation at the water point, and the drawing order established." **Borehole Committee**
- **"**Decisions related to the internal organization of the committee, on maintenance days and the term duration of the committee members." **Borehole Committee**
- **"**The source cleaning schedule, the road leading, and the surroundings." **Spring Committee**
- **"**Organization of activities at the water point, maintenance, internal organization of the committee." **Spring Committee**

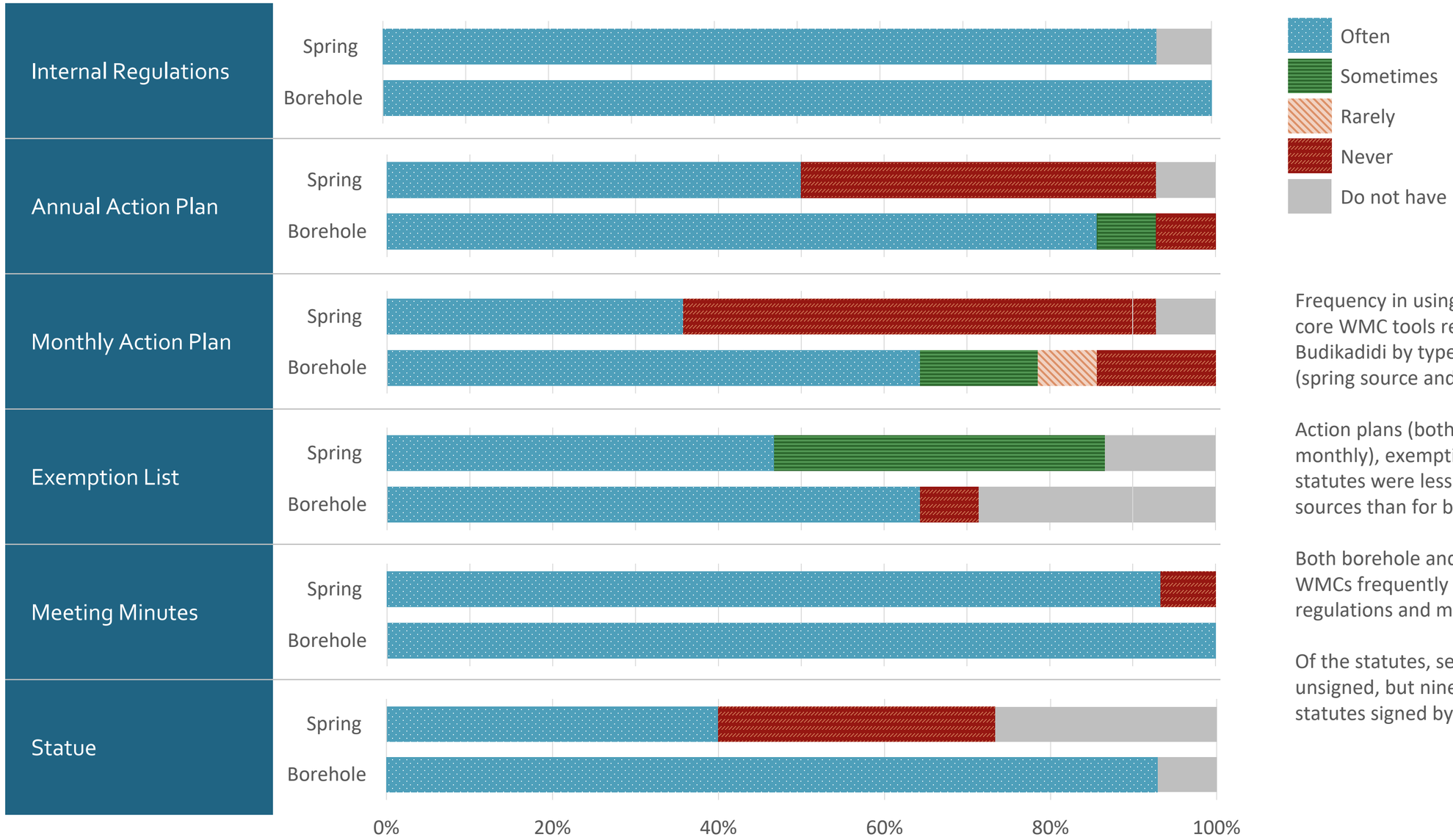
Consultative Decisions

- "The remuneration of volunteers, the fixing of the price of water, the schedule of drawing, the mandate of the WMC, the frequency of review of the list of the destitute.." **Borehole Committee**
- "Decisions related to water distribution services and sustainability. In particular, the price of water, the remuneration of the members of the WMC." **Borehole Committee**
- "The forecast of the development of another source, the period and modality of fundraising funds, and the amount contributed by household." **Spring Committee**
- "The source maintenance dates, the amount to contribute, people who cannot contribute, the types of punishment for people who disturb order at the source." **Spring Committee**

OPERATIONS

Management Tools

Budikadidi encouraged each WMC to adopt a selection of written management and governance tools to support accountability and transparency. To explore the use of these management tools, we asked each WMC if they have six recommended management tools and how often these six tools are used. The use of a Likert scale, rather than yes-no responses, created an opportunity to see the extent to which these tools are used regularly. This helps future project to identify which have been the most valuable tools to WMCs as well as which tools have been more challenging to incorporate.



Frequency in using each of the six core WMC tools recommended by Budikadidi by type of water point (spring source and borehole).

Action plans (both annual and monthly), exemption lists, and statutes were less used for spring sources than for boreholes.

Both borehole and spring source WMCs frequently used internal regulations and meeting minutes.

Of the statutes, seven remained unsigned, but nine WMCs had their statutes signed by the sector chief.

OPERATIONS

Conflict Management

Conflicts surrounding the water point are also factors affecting sustainability. Participants noted conflicts of ownership and customary conflicts, old latent conflicts revived by the presence of the borehole, negative impacts of the drinking water supply on other people's business, sabotage between rivals, and witchcraft. The arrival of drinking water in villages can revive latent conflicts between groups, which impacts proper water service management. Budikadidi has partnered all water activities with social cohesion and behavioral change interventions to mitigate conflict both with the committees and communities. These included increasing awareness, extending water access concepts to include behavior change, and encouraging community clean-up days.

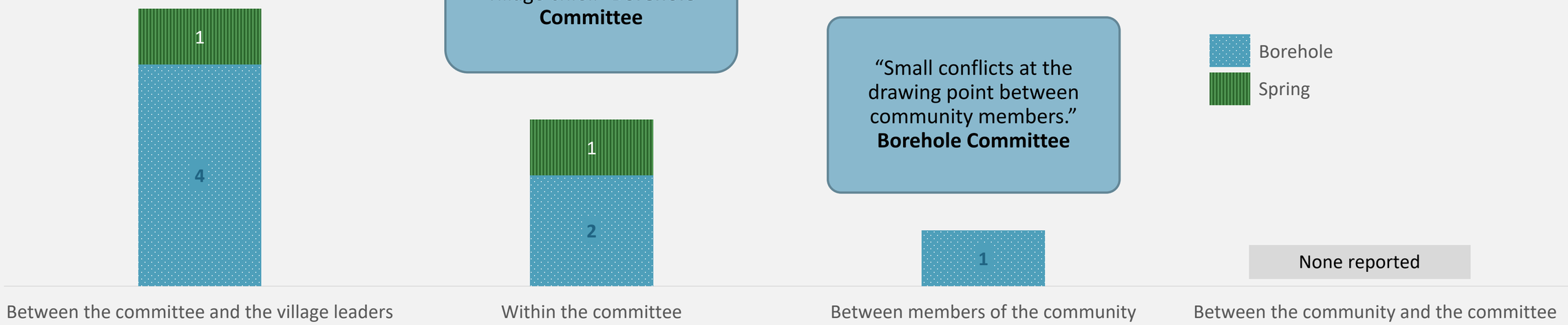
"The village chief does not want to pay for water, so the climate is not very serene between him and the committee. The WMC used the wisdom of the CDC to speak to the chief." **Borehole Committee**

"There was a conflict between members of the first committee, this led to resignation. This is what prevailed in setting up the new committee. The conflict was settled by the CDC under the leadership of the village chief." **Borehole Committee**

"Small conflicts at the drawing point between community members." **Borehole Committee**

Reported Conflicts

Number of reported conflicts by 29 water points interviewed by spring source and borehole WMCs.

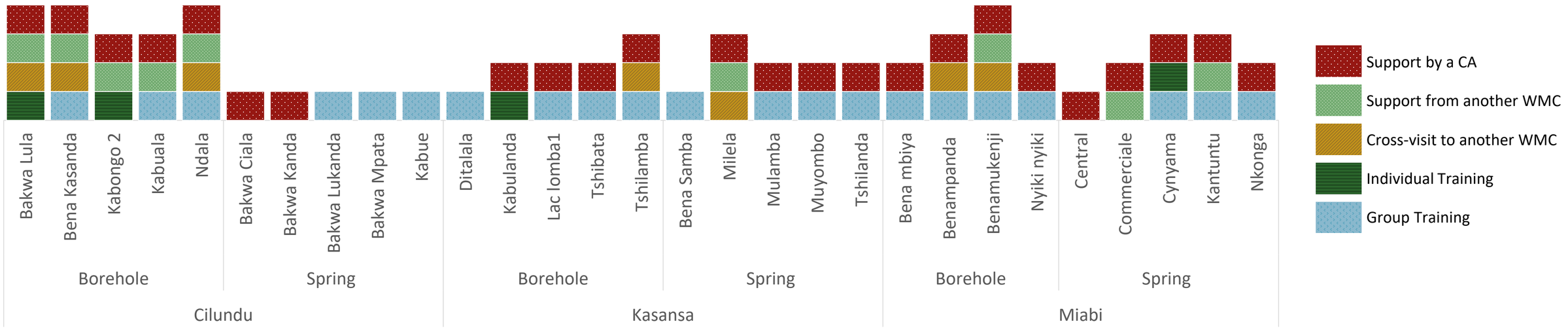


OPERATIONS

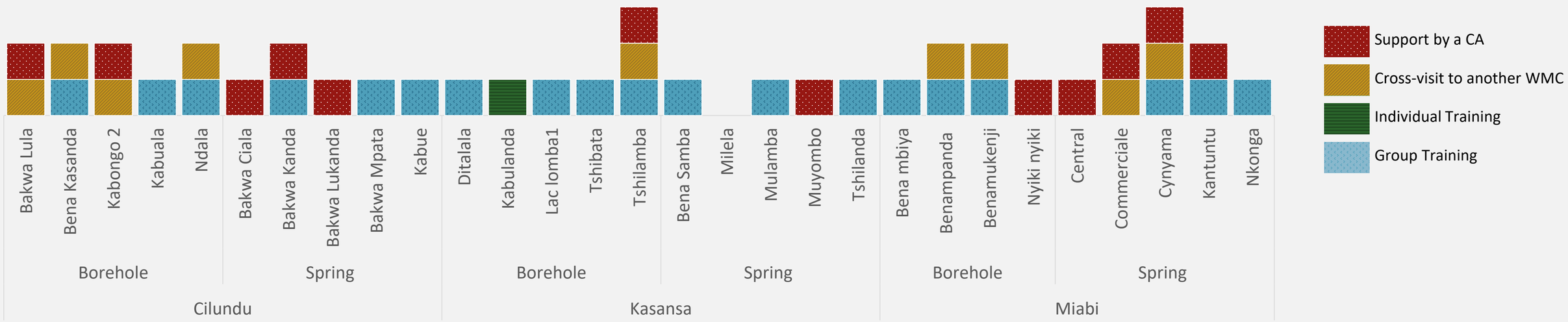
Training and Support

Budikadidi facilitated a range of support mechanisms to build the long-term capacity of WMCs, which included individual and group training, cross-visits with other WMCs, and support by a Community Assistant (CA). CAs are volunteers, usually young people, trained by the RFSA on multisectoral topics and assist a group of villages on different development interventions. We asked WMCs about their experiences and preferences to explore the uptake and desirability of these different modalities. It should be noted that there was not always alignment between the support received and the support recommended. Future activities should offer a variety of support options to recognize that not all WMCs appreciate or request the same types of support.

Support modalities used by each of the WMCs, by health zone and water point type.



Support modalities recommended for future programs by each of the WMCs, by health zone and water point type.



A Operations

B Finances

C Maintenance

D Community Engagement

E Sustainability

Section 2B
Committee Finances

FINANCES

Setting Tariffs

The sustainability of community water-supply service provision will depend on generating revenues that can cover all costs associated with monitoring and protecting the water point/source, managing and maintaining the facilities, and technical equipment or installations used to operate the service.

The community will be more likely to understand the need to generate income if the financial management of revenues is carried out transparently through appropriate accounting procedures and monitored by management committees.

Tariffs were set using community participation to balance desirability, feasibility, and viability.

Desirable:
Willingness to Pay

- Committees should involve community members and delegates in discussions of possible tariffs.
- As part of this discussion with community members, the committee should take time to discuss the system's sustainability and the fact that user fees must be sufficient to maintain and repair the water point.

Feasible:
Ability to Pay

- Committees should involve community members and delegates in discussions of possible tariffs.

Viability:
Infrastructure Costs

- Cost-based rate setting. Another approach is to set fees according to facility cost requirements to ensure system viability.
- Costs can be estimated at several levels, including those associated with replacing the complete system, costs associated with major repairs, and costs associated with day-to-day operations and regular maintenance.

A spectrum of tariff payment modalities from informal to formal. Modalities used by Budikadidi are highlighted in green.

Tariff collection modalities vary in levels of formality, transparency, and ease of access.

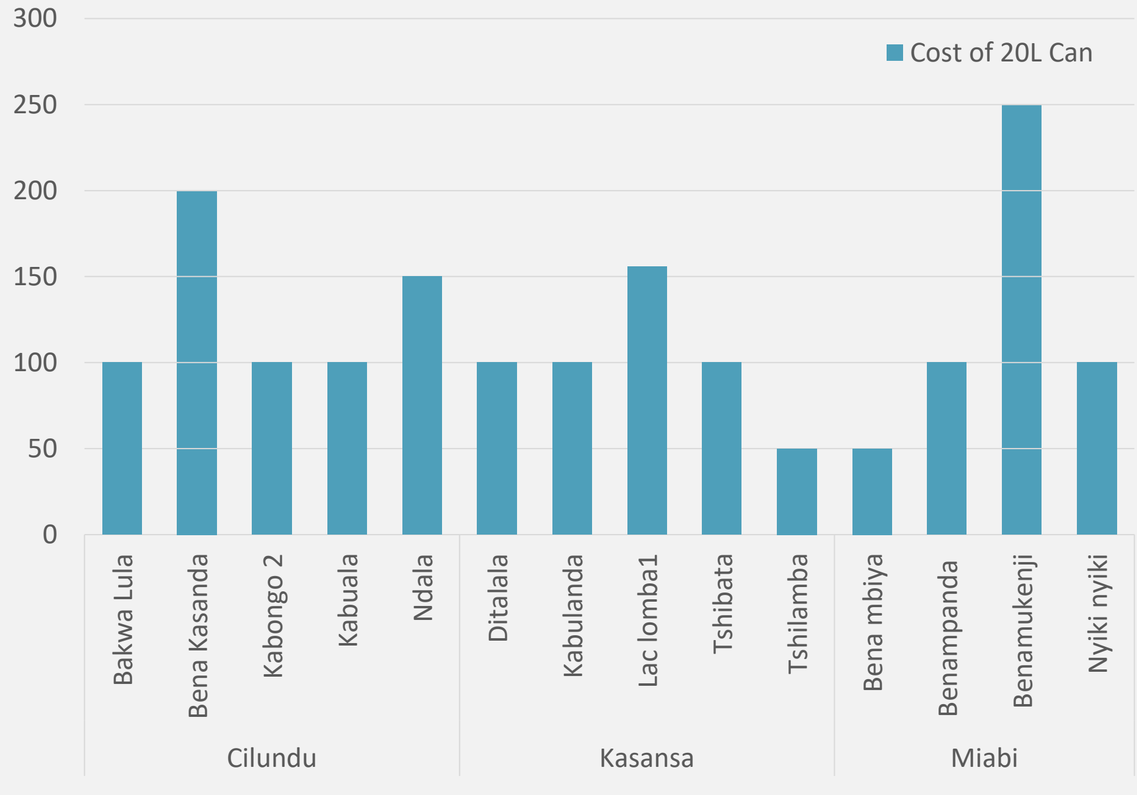
- Of the 29 WMCs interviewed, four springs and eight boreholes in the Budikadidi RFSA relied on payment at the source to a cashier.
- Of the 14 borehole WMCs interviewed, Orange Money (a mobile money operator) is being used by six, not as a payment modality, but to store savings.

Payment Modality		Boreholes	Springs	Total
Pay per use	Cash	8		8
	Prepaid tokens	6	1	7
Flat Rate Pre-payment	Weekly		5	5
	Monthly		5	5

1. JMP. (2021). The measurement and monitoring of water supply, sanitation and hygiene (WASH) affordability: a missing element of monitoring of sustainable development goal (SDG) targets 6.1 and 6.2. https://www.who.int/publications/i/item/9789240023284

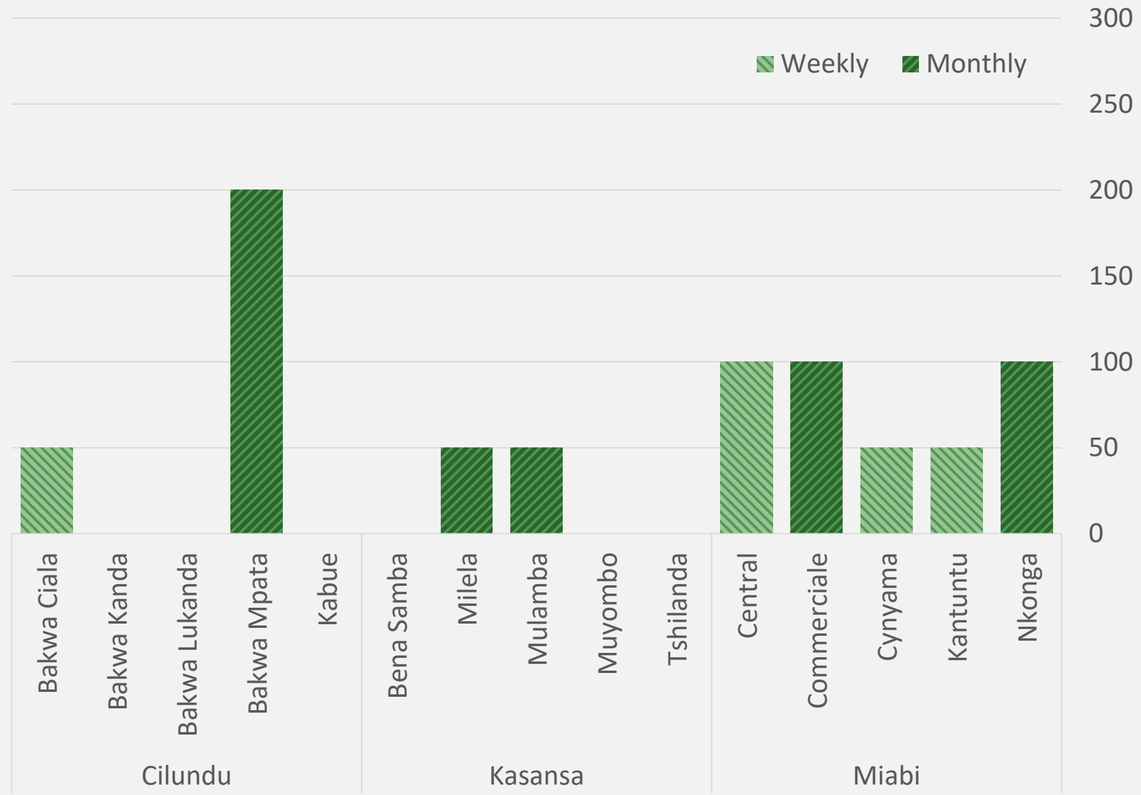
Borehole Tariffs

The cost in Congolese Francs for each 20-liter jerrycan for each pay-per-use water point (boreholes) by health zone. Three boreholes also include costs for 10-liter and 30-liter jerrycans.



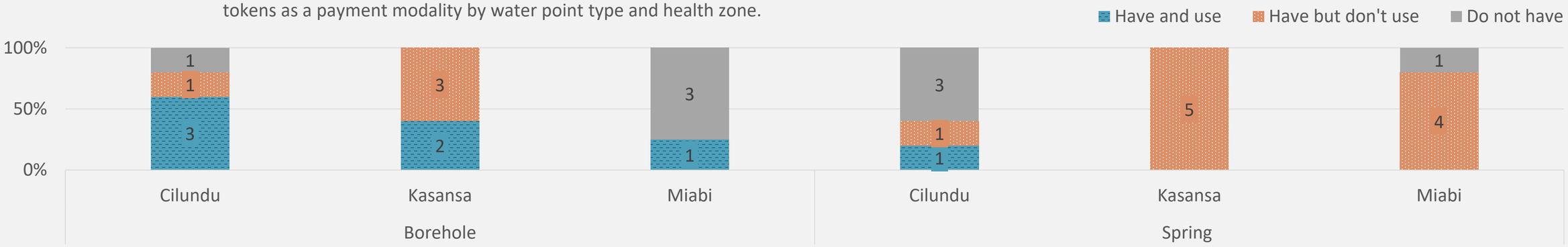
Spring Source Tariffs

The weekly or monthly cost in Congolese Francs for unlimited use at each spring source by health zone. Six spring sources did not report tariffs.



Token Use

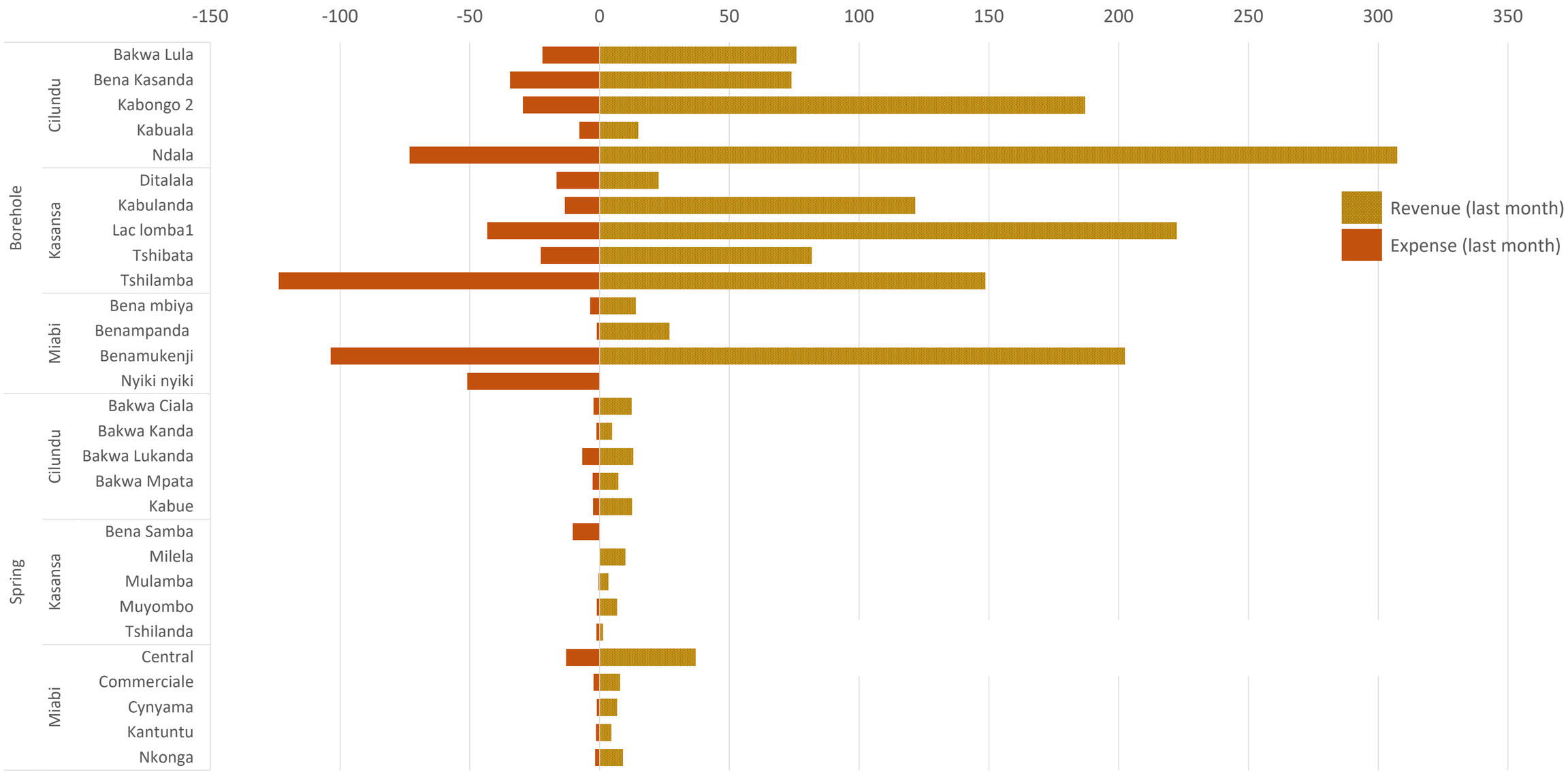
Stacked bar chart illustrating the relative proportion of water points using tokens as a payment modality by water point type and health zone.



FINANCES

Revenue and Expenses

The financial sustainability of WMCs is directly related to the committees' ability to raise funds and spend them as required for repairs, maintenance, and remuneration of WMC members. To explore the incomes of committees, we asked WMCs about their last month's revenues and expenses. All 29 committees shared information in Congolese Francs (CDF), which were then converted to U.S. Dollars (USD) for analysis. Borehole WMCs ranged from USD 0 to over 300, and expenses ranged from USD 1 to USD 124. Spring source revenues and expenses were less significant. The range of costs for the different committees includes different remuneration strategies and differing maintenance costs.

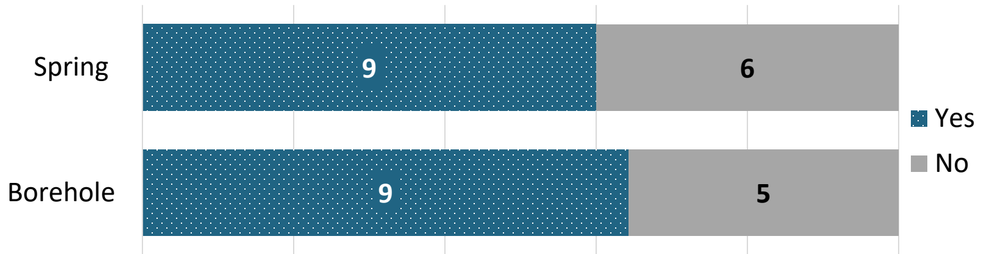


FINANCES

Payment Exemptions

While most community members expect payment, there are exemptions to payment that WMCs, CDCs, and village chiefs have negotiated. To explore the topic of payment exemptions, we asked WMC focus groups a series of questions related to the presence and types of exemptions. Of the 29 WMCs interviewed, 18 had water fee exemption lists.

Payment exemptions are seen as a potential source of conflict for committees. Three WMCs described conflict with the village chief related to demands for free water. Only one WMC has provided free water to the chief's family and also provides free water to the police.



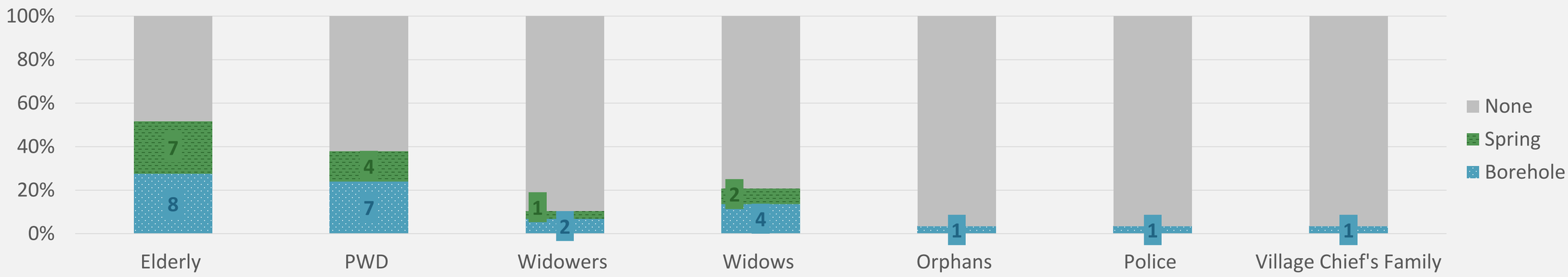
Stacked bar chart representing the proportion of WMCs who offer payment exemptions. Approximately two-thirds of the WMCs had and used exemption lists to identify the types of people who were eligible for exemptions.

How was the list developed?	Borehole	Spring
CDC Drafted	7	8
Community Consultation Process	1	
Village Chief Drafted	1	
Village Chief and CDC Drafted		1

- Most exemption lists (15/18) were developed by CDCs and focused on the elderly and persons with disabilities.
- These lists are reviewed annually (7), biannually (1) and quarterly (9).

Exempt Individuals

The types of individuals on the exemptions list for each water point by water point type.



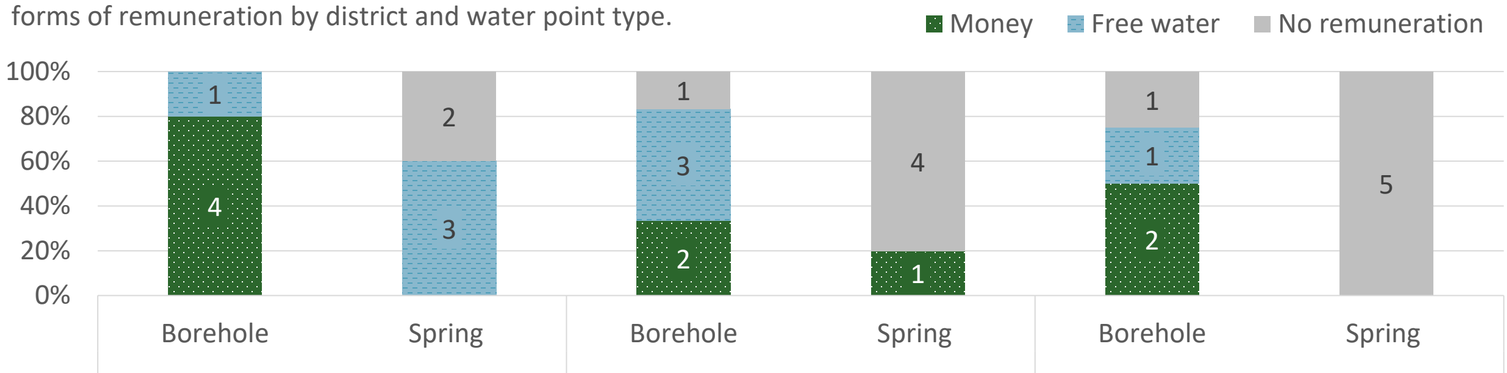
FINANCES

Incentives and Remuneration

Within the Budikadidi contexts, committees were free to work with their community members to identify how they would be remunerated for their work on the committee. To explore these incentives, we asked WMCs to describe what types of remuneration they used and how they decided on these remunerations. Boreholes were more likely to offer remuneration to committee members. This payment included both free water and money as a percentage of the committee's monthly revenues. Monetary incentives ranged from 10% to 30% of monthly revenues.

Forms of Remuneration

Stacked bar charts showing the relative proportions of the different forms of remuneration by district and water point type.



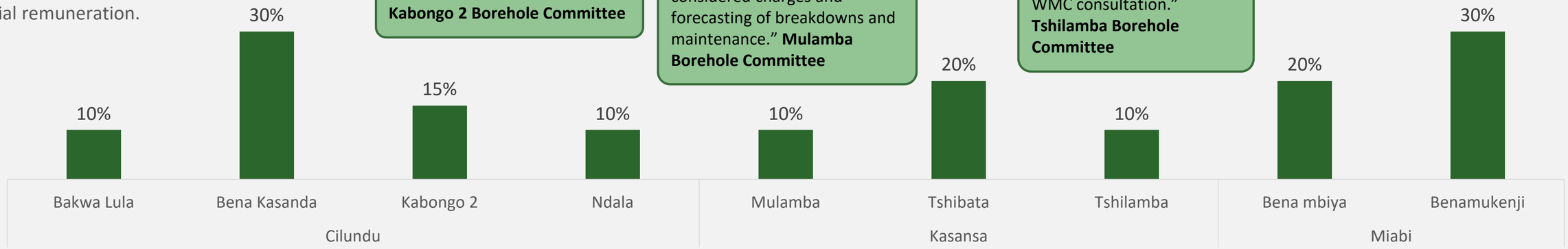
"There is no remuneration. The little money collected from the contribution is kept in the cash register for repair cases or used to motivate people on the day of maintenance." **Spring Source**

"There is no remuneration, but sometimes an encouragement bonus is granted to the members of the committee. This was decided by the community under the leadership of the village chief." **Spring Source**

"There is no remuneration. We give a package at the end of the month to encourage volunteers who order and care at the source." **Spring Source**

Financial Remuneration Amounts

Percentage of the monthly revenue for the borehole committees that use financial remuneration.



"The amount of the remuneration is set by the CDC in consultation with the WMC at 15% of the monthly income obtained from the water tariffs." **Kabongo 2 Borehole Committee**

"The amount of the remuneration was set by the CDC in consultation with the WMC and the chief. This considered charges and forecasting of breakdowns and maintenance." **Mulamba Borehole Committee**

"The decision was made by the CDC after consultation with the community, at the request of the chief and the WMC consultation." **Tshilamba Borehole Committee**

"Local authorities in community consultation decided the remuneration of 30%." **Benabukenji Borehole Committee**

FINANCES

Income Generation

Uniquely, the Budikadidi RFSA listened to calls to support WMCs to build income-generating components to their management work. Seven committees have started income generating activities (IGAs), and six offered to share their experiences documented below and on the next page.

As the IGA was a grass-roots emergent strategy in the project, there was not time to provide tailored support on financing strategies. However, six of the groups linked up to mobile money systems for the storage of the funds.

Waterpoint	Kabuala	Bena Kasanda	Ndala	Bakwa Mpata
Health Zone	Cilundu	Cilundu	Cilundu	Cilundu
Type	Borehole	Borehole	Borehole	Spring
IGA Type	Pig rearing	Goat rearing	Palm oil production and gardening	Farming and livestock
Progress so far	While it is still at the beginning, we continue to raise pigs.	We have rapidly increased our income and are more able to pay for repairs.	To date, we have already stored a good amount of palm oil. The sale is planned for next month when prices are expected to be higher. We have also produced a little corn and are consistently producing eggplant and onions.	To date, we are farming a one-hectare field. We have just started and plan to get a good deal. We also have four goats, two of which are large, for breeding.
Decision-making	Minority committee decision	Majority committee decision	village chief Consultation	Community consultation
Management	The WMC manages it.	The WMC decides the management.	We have invested in two IGAs, and each activity has a specific team for management. So far things are well-managed.	This is our first experience, so we have set up a management committee, especially for multiplying the goats before we sell them. We have not yet sold our animals, and we are considering how to reinvest the money after the sale.
Challenges	So far everything is still going well.	There was an epidemic that killed many of the goats.	At the start, the challenge was technical and financial. The village had not mastered how to use the machine. However, we have recruited an expert from the neighboring village.	For breeding, we faced the epidemic last year and lost two goats. For the farming, we must manually till the field without animals.
Overcoming Challenges	Nothing to report.	In collaboration with the sector's veterinarian, we processed animals following his advice.	We addressed these challenges calmly.	During the epidemic, we contacted a veterinary assistant who vaccinated our animals.
Recommendations	We recommend organizing meetings to inform communities about money management to avoid speculation.	We recommend selecting IGAs by identifying what can work in each village.	We recommend respecting the authority of the chief and working in collaboration.	We recommend always setting up a separate management committee for each activity. This will give them the opportunity to better control and follow. It also creates jobs for others.

Further cases

The newly built pharmacy building from the Tshilamba committee's IGA.

Waterpoint	Tshilamba	Bena Mbiya
Health Zone	Kasansa	Miabi
Type	Borehole	Borehole
IGA Type	Livestock and pharmacy	Gardening and livestock
Progress so far	We started by breeding goats and rabbits. For diversification, we have also decided to build a pharmacy. We are currently constructing the building. We will be the only pharmacy in the village.	We have carried out agricultural activities, mainly market gardening, by cultivating tomatoes, eggplant, and peppers. We have also been breeding goats, rabbits, and chickens. These activities have enabled us to increase income and engage the local workforce to expand our fields and financial capacities.
Decision-making	Community consultation	Community consultation
Management	• The number of rabbits and goats is increasing. • The pharmacy has been started according to the action plan and feasibility study carried out. • The treasurer continues to manage AGR's money well. • The funding of the funds must be authorized by the President with two signatures.	We benefited from value chain training from Budikadidi, and we have set up a management committee for our field activity. As for the breeding of goats, rabbits, and chickens, we give our members some of the animals for management. The IGA management committee is responsible for managing and reporting each time to the WMC, which reports to the CDC.
Challenges	• The animal epidemic. • Construction of the building to house the pharmacy. • Transport costs for purchases. • The presence of rivers in the vicinity.	In agriculture, the challenge is the theft of products in the fields. For breeding, we often have to face the epidemic of goats and chickens. Fortunately, since the CDC has developed risk and disaster management plans, we have followed epidemic cases and consulted the veterinary auxiliaries.
Overcoming Challenges	In relation to the epidemic, we received a veterinary assistant linkage from Budikadidi. Transport for purchases is not fully supported, so we should take advantage of members' trips.	When faced with a challenge, we consult the CDC under the leadership of the village chief.
Recommendations	We recommend that other WMCs be organized before jumping into IGAs. They should complete the whole training.	Creating an IGA is an effective way to increase money to deal with increased repair needs. So, we will promote creating IGAs whose management must be entrusted to a separate management committee.

FINANCES

Financial Performance

To explore the financial sustainability of the water points, we asked WMCs to describe their perceptions of their financial performance. 26 WMCs responded to the question. These responses were then grouped by water point type by sentiment (positive, negative, and neutral).
Most WMCs perceived their financial performance as positive, yet five borehole and five spring source WMCs described performance as negative. Several of the WMCs identified the use of IGAs as a way to strengthen financial performance. One of the spring sources also challenged the criteria of financial performance, instead describing that the WMC has social rather than financial objectives.

Borehole

(+) Positive

Good performance, which led the WMC with the CDC and the village chief to identify the activities.

The outlook has been good since the arrival of the new WMC.

With the funds generated by IGAs, we achieved our objectives as far as possible.

The performance is good. We have started building a pharmacy, and, in the meantime, we have bred multiple rabbits.

It was difficult starting with only the water money, but the performance has been good with the new IGAs.

Good performance.

Neutral

We think that with pork farming, we will wait for our goal.

For a start, we think we are evolving. Consider creating an IGA in the long run.

Negative (-)

The financial objective was not fully achieved since few people go to boreholes, and many go to rivers.

Financial performance is low due to a lot of free granted. There is still a lot of effort to provide.

Finances concern.

Weak, unlike expectations.

Not good performance.

Spring

(+) Positive

The WMC has performed well in creating two IGAs, including agricultural and breeding.

We evolve well and think about creating an IGA soon.

Compared to the financial objective, the WMC improves. It was difficult at the start, but currently, households are well.

The performance of the WMC compared to its financial objective evolves positively. The collect fees allow the execution of certain activities.

The collection is done normally. The money is used to buy maintenance equipment while keeping a part to deal with any repairs.

Effective.

Neutral

There is no financial performance to be achieved.

The WMC does not have financial but rather social objectives. How to make it available for drinking water for everyone. The community regularly contributes to the costs for possible maintenance and repair, although the population is poor.

Negative (-)

The financial objective is difficult to achieve, so we have not accomplished our investment activity in an IGA. However, our projections can be profitable if we do not know serious breakdowns.

The WMC has not achieved its performance goals.

Poor.

Not performs.

Since our entry into office, the income has increased, and we could soon consider the implementation of an income-generating activity, according to our action plan.

Section 2C
Maintenance

MAINTENANCE

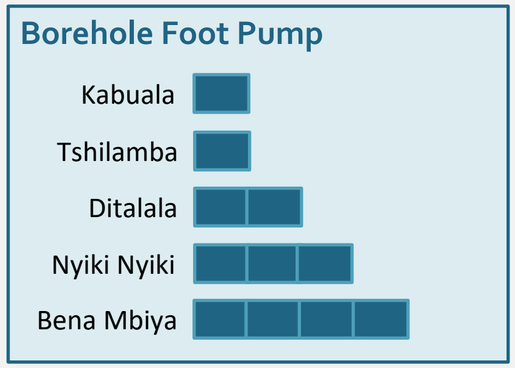
Facing Repairs

The functionality of water points remains a significant challenge to their sustainability. As such, the study explored the frequency of water point non-functionality and how the WMCs could facilitate repairs. This study was conducted through a series of questions about how the WMCs worked with the private sector and their local mechanic.

Further research is required to explore these challenges in more detail – for example, the study was unable to understand the reasons for these failures.

Probable causes of water point failure

- Poor geographical positioning of the water point or inappropriate technical choice.
- Lack of technical knowledge and appropriate personnel to resolve technical issues within the committee.
- Lack of monitoring of water quality during construction (by the community and others).
- Lack of maintenance services and spare parts suppliers in the area.
- Lack of a responsible entity and clear ownership of the infrastructure.
- Lack of legitimacy of the committee at the community level.
- Problems of influence or domination of certain members within communities (power and risk analysis).
- Poor management or problems anticipating operating needs.
- Poor use of infrastructure.



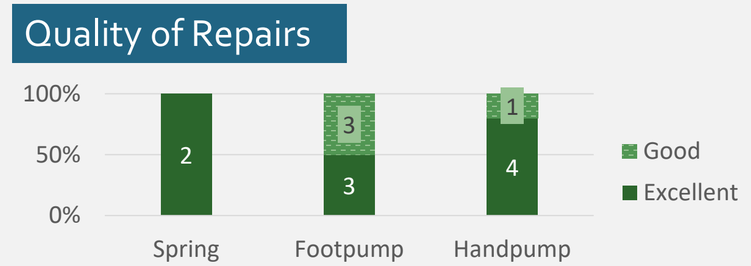
This diagram indicates the number of repairs for each water point requiring repair. Each box indicates a repair.

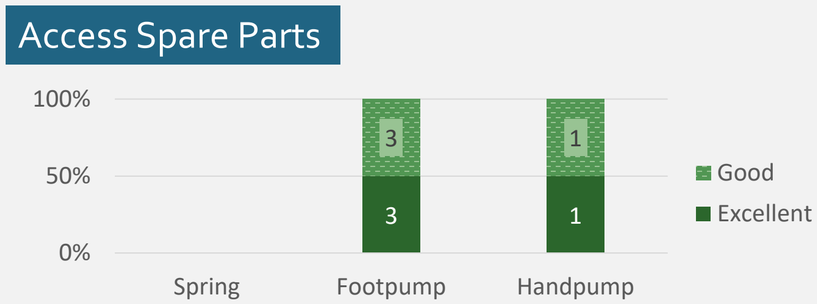
"We want us to find a local repairer because what increases the price is the transport of the repairer." **Kabulanda Borehole Committee**

13 WMCs described having completed a total of 21 repairs. Foot pumps were more likely to need repairs than hand pumps and spring sources. One pump, the Nyiki Nyiki foot pump in Miabi, was not working during the study.

Repairs were described as "excellent" (9/13) and "good" (4/13) from a Likert scale of excellent-good-okay-poor.

Eight water points indicated they had accessed spare parts from the private sector (Vergnet). These services were described as "excellent" (4) and "good" (4) from a Likert scale of excellent-good-okay-poor. WMCs described a few ways that private-sector-led water point repair could potentially improve. Namely the availability of spare parts and travel distances between the water points and the repairers.





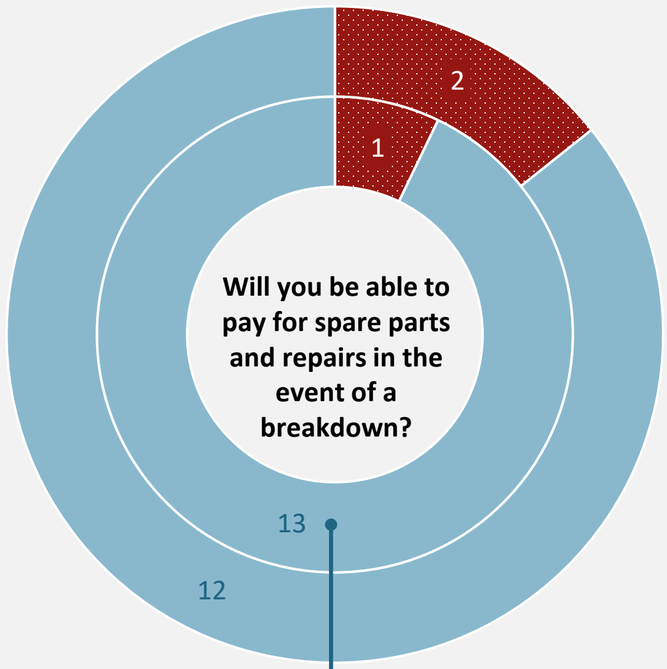
MAINTENANCE

Managing Repairs and Improvements

To investigate the extent to which WMCs believed they could sustain beyond the length of the activity, we asked two questions related to access to spare parts and potential expansions. Overall, WMCs felt confident about access spare parts, but less confident about expansions. However, notably 8 spring WMCs and 5 borehole WMCs did believe that they could expand their systems in the future.

Spare Parts

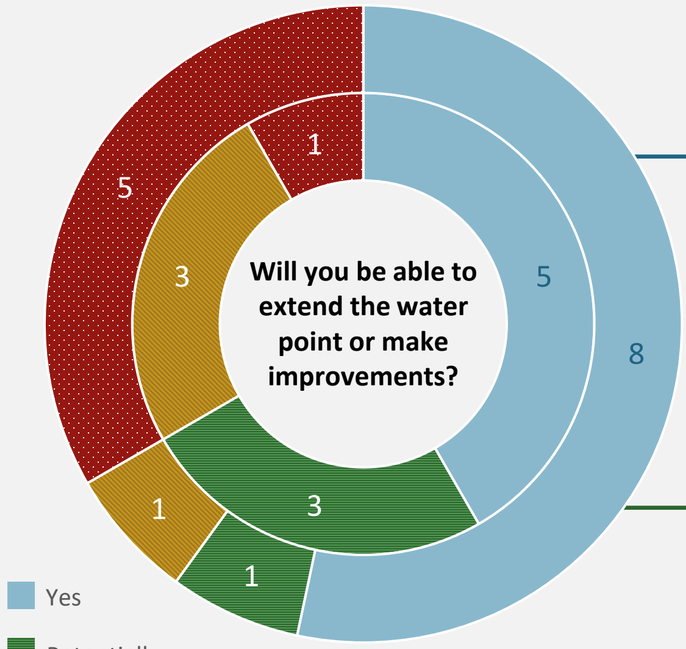
26 of the interviewed WMCs noted that they could pay for spare parts with their current financial management strategies.



"Yes, we can afford spare parts, given the level of mobilization of funds and on the basis of the list of prices of parts made available to us and the maintenance frequency." **Borehole Committee**

Expansions and Improvements

However, fewer WMCs were confident that they could improve or extend their water points in the future. These barriers were primarily due to financial limitations; however, there was interest in installing reservoirs and solar systems to ensure more consistent water access.



"It would take us a many years. But the vision is to have a tank made and replace the type of pump." **Borehole Committee**

"Perhaps not only with the means mobilized in water, but with external assistance or a subsidy, we could consider setting up a solar system with a tank." **Borehole Committee**

A Operations

B Finances

C Maintenance

D Community Engagement

E Sustainability

Section 2D
Community Engagement

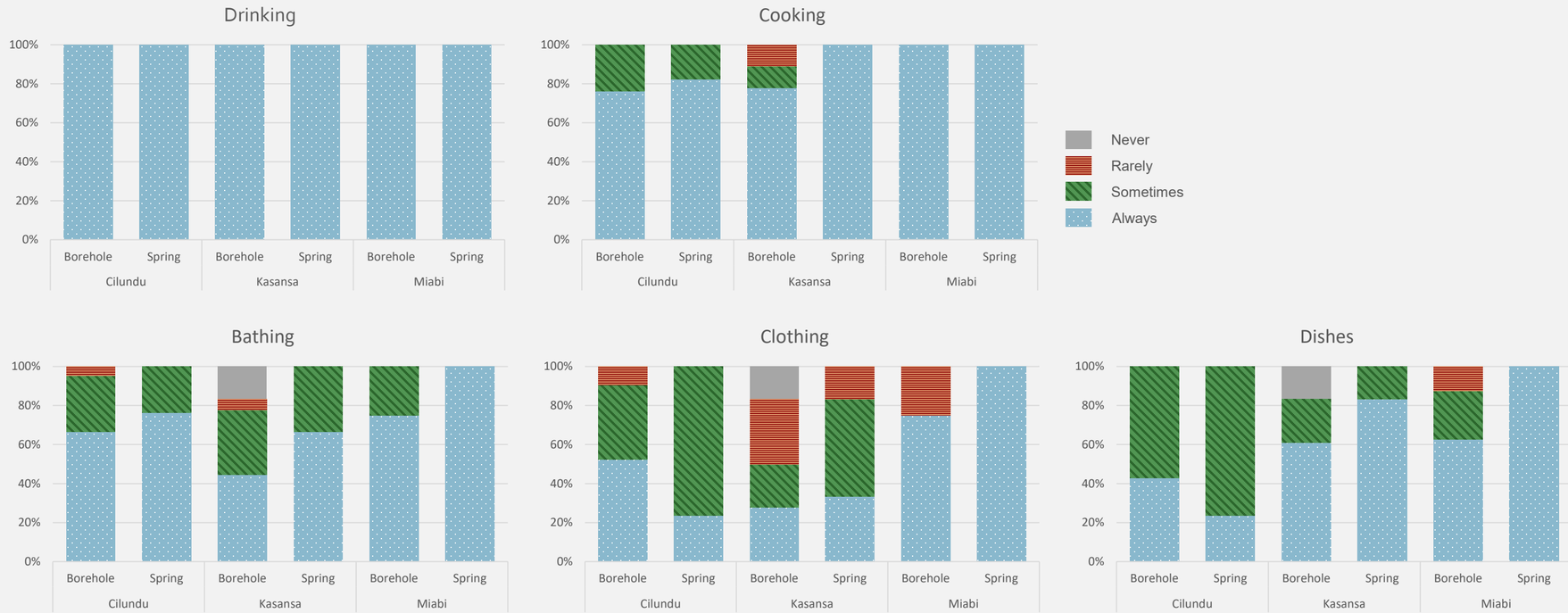
Water Use

Water use information from 73 water users at 29 water points in three health zones in rural DRC.

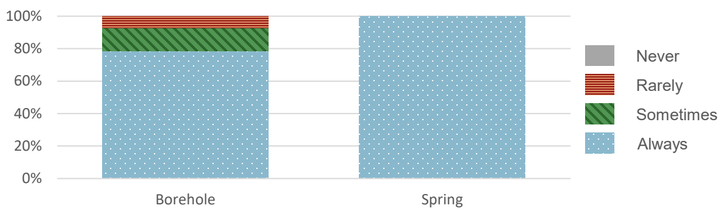
Structured interviews were collected from three to five users at each water point. Users were asked to describe how they used water collected from boreholes and springs. These use patterns were triangulated with responses from the 29 WMCs, shown at the bottom of the page.

There are differences in how boreholes and spring sources are used particularly around the use of water for bathing, cleaning clothes, and doing dishes. These variances also occurred across the three health zones.

Water was used less for gardens, animals, and crops—common aspects of multiple water use. However, springs were more likely to be used for multiple uses than boreholes. One borehole is also used for bricking making.



Water Sufficiency
Reported by WMCs



Water was deemed to be more sufficient in springs than boreholes.

Water User Patterns
Reported by WMCs

Reported use patterns broadly aligned between users and committee perceptions.

COMMUNITY ENGAGEMENT

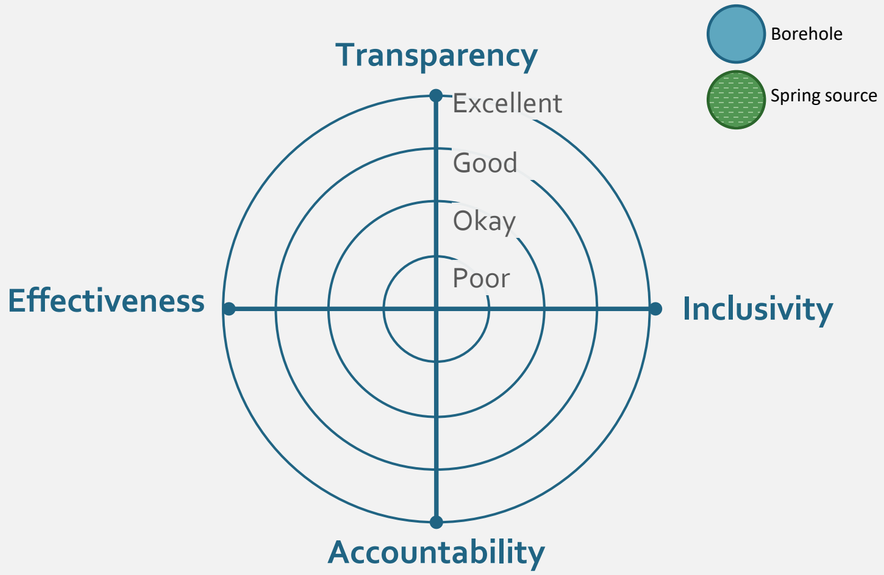
User Perceptions

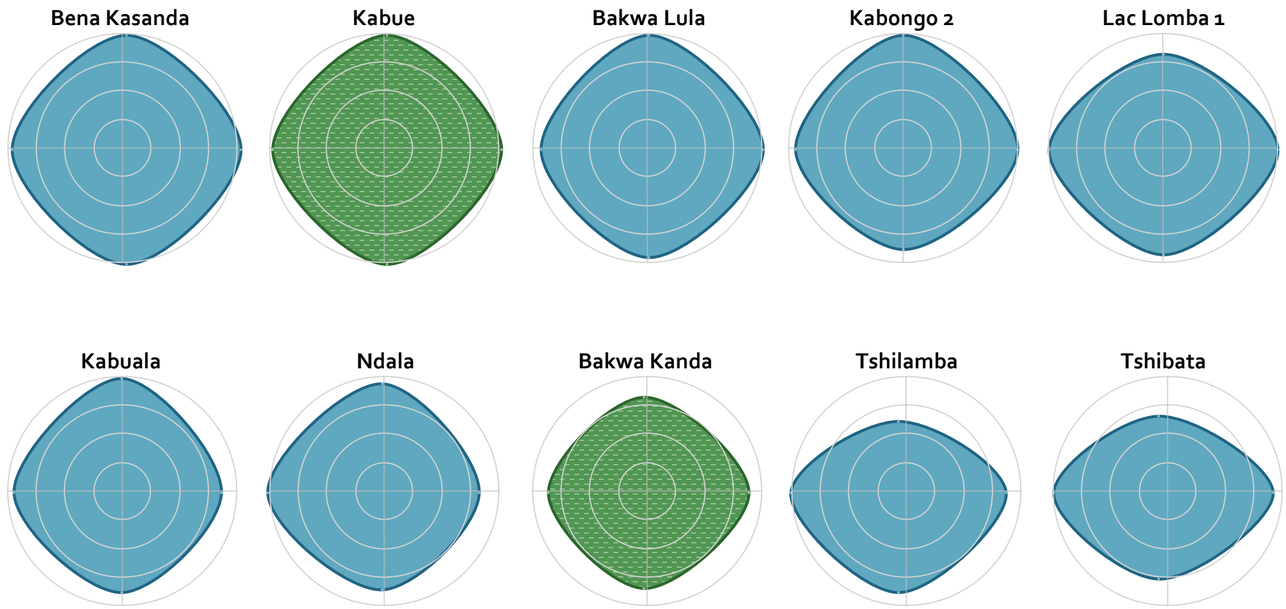
To explore how users perceived the WMCs, we asked users four questions related to their perception of the transparency, inclusivity, accountability, and effectiveness of WMCs. Perfections of the committees varied significantly, with borehole WMCs overall performing better than spring source WMCs. Future research could continue to validate these four questions as a scale for evaluating WMCs' performance over time.

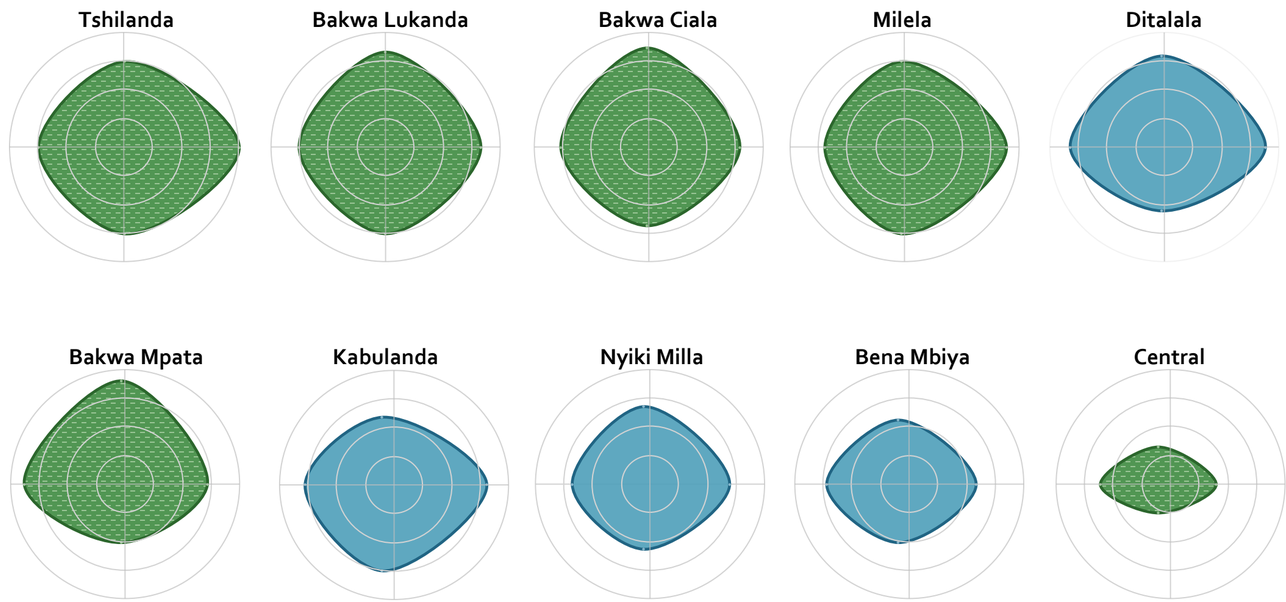
To investigate water users' perceptions of their WMCs, we asked users to describe each aspect using a four-point Likert scale. Three to five users were asked from each waterpoint, responses were then converted to numeric scores between 1 and 4 and averaged for each water point.

Scores were then plotted on spider graphs for each water point. The poles of each **spider graph** relate to transparency, inclusivity, accountability, and effectiveness in a clockwise order, respectively**. Larger plot areas indicate better user perceptions and smaller plot areas indicate poorer perceptions.**

The graphs have been ordered according to the overall score, with Bena Kasanda having the highest overall user perception and Central Spring having the lowest.







COMMUNITY ENGAGEMENT

Accountability Structures

The Budikadidi RFSA aimed to create strong feedback loops between WMCs and village leadership, including village chiefs and CDCs. This included opportunities for transparency and accountability. All 29 WMCs described how they sought community accountability. Most WMCs described adherence to management tools and structures and reporting back (in writing) regularly to the CDC and communities in general assembly meetings. The village chief also plays a significant role in overseeing these feedback loops. There were no significant differences between how borehole and spring source WMCs ensure accountability. A sample of response for boreholes and spring sources is provided below.

How does this committee show transparency and accountability to members of the community, the CDD and the village chief?

"We share the relationship with the chief and the CDC; we organize the general meeting to report to the community." **Borehole Committee**

"We report to the CDC and regularly make our operating and financial reports." **Borehole Committee**

"We develop written reports transmitted to the chief and shared with the community." **Borehole Committee**

"We report our activities every month in a village assembly organized by the CDC under the leadership of the chief. Each month we organize a financial meeting with the CDC. During this meeting, we make the report available and make certain decisions." **Borehole Committee**

"All our meetings are held in the chief's court in the presence of the president of the CDC or his delegate. The written report, including a copy, is transmitted to the CDC. The CDC reports to the community during the village assembly held at the end of the month." **Spring Committee**

"The written and signed report is shared with the CDC and presented at the General Assembly." **Spring Committee**

"We do not undertake any expenditure without the approval of the CDC. The CDC then reports to the chief and the Village General Assembly." **Spring Committee**

"Thanks to our management tools and the written report transmitted to the village chief and the CDC. We also report to the population as a village assembly summoned by the chief every end or early month." **Spring Committee**

How does the community perceive the committee? Average scores by water point type.

Three springs performed oaky or

Negative Perceptions "The committee members are all from the same family. They aren't' doing their jobs and money is poorly managed." **Spring Water User**

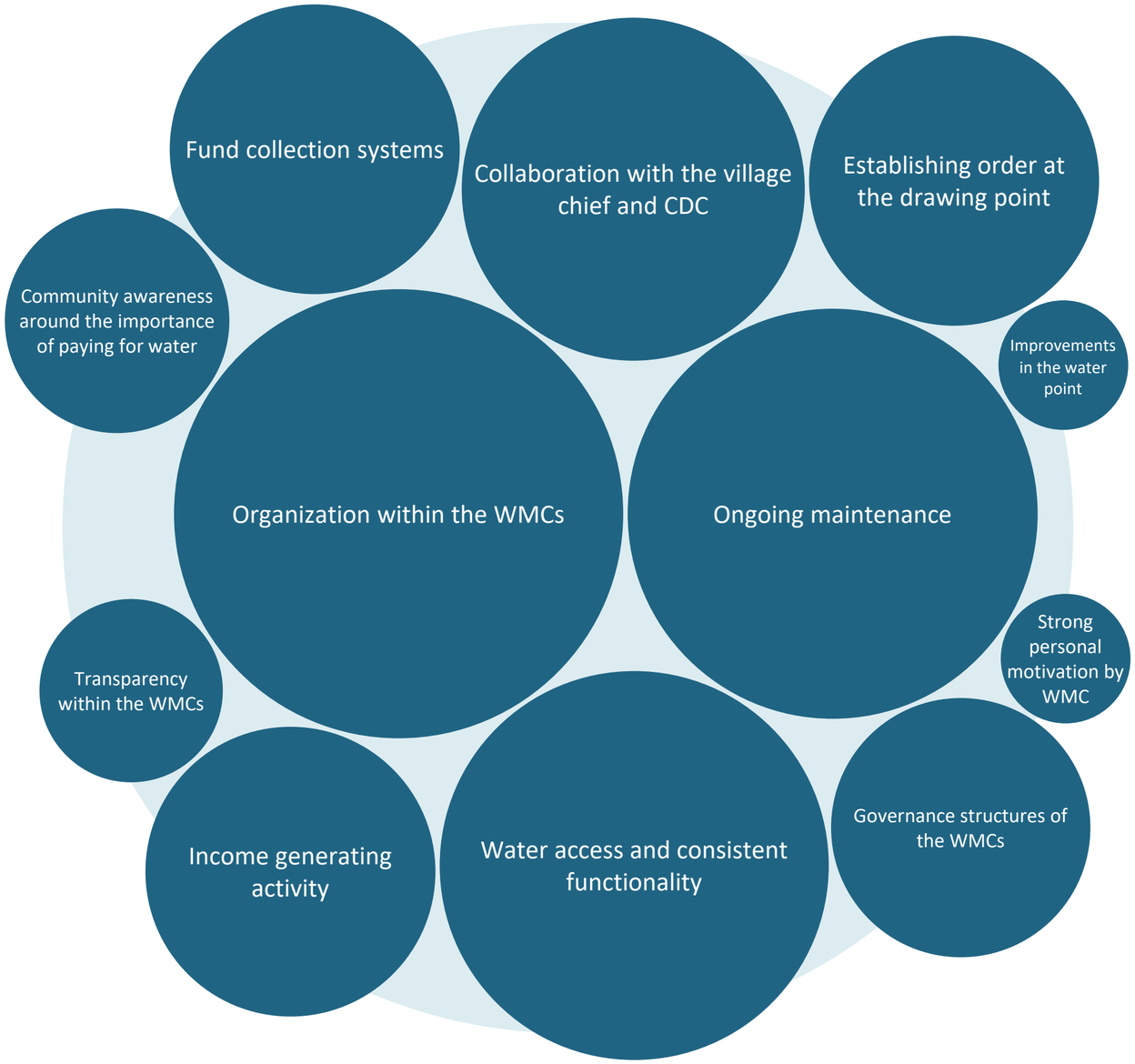
Positive Perceptions "The committee ensures hygienic maintenance of the borehole and ensures good money contribution to maintain the infrastructure in the event of a breakdown." **Borehole Water User**

Section 2E
Sustainability

SUSTAINABILITY

Success Factors

While the WMCs ranged in levels of perceived success by water users, communities described the majority as successful in managing their water points. To explore the reasons for their success, we asked WMCs what made them successful. 28 of the 29 WMCs provided information on the success factors for their water point. Most WMCs provided two to three success factors, with one WMCs providing five. These success factors were then thematically grouped into 12 factors. Organization within the WMCs was the most cited factor by borehole WMCs and ongoing maintenance by spring sources.



This circle packing diagram illustrates the relative proportion of the 12 identified factors of success. Results from boreholes and springs have been combined. The size of each circle indicates the number of WMCs who described this factor.

Theme	Boreholes	Springs	Total
Improvements in the water point	–	1	1
Strong personal motivation by WMC	1	–	1
Transparency within the WMCs	1	1	2
Community awareness around the importance of paying for water	–	3	3
Governance structures of the WMCs	4	–	4
Fund collection systems	1	4	5
Income generating activity	4	1	5
Establishing order at the drawing point	3	2	5
Collaboration with the village chief and CDC	2	5	7
Water access and consistent functionality	5	4	9
Ongoing maintenance	4	6	10
Organization within the WMCs	9	3	12

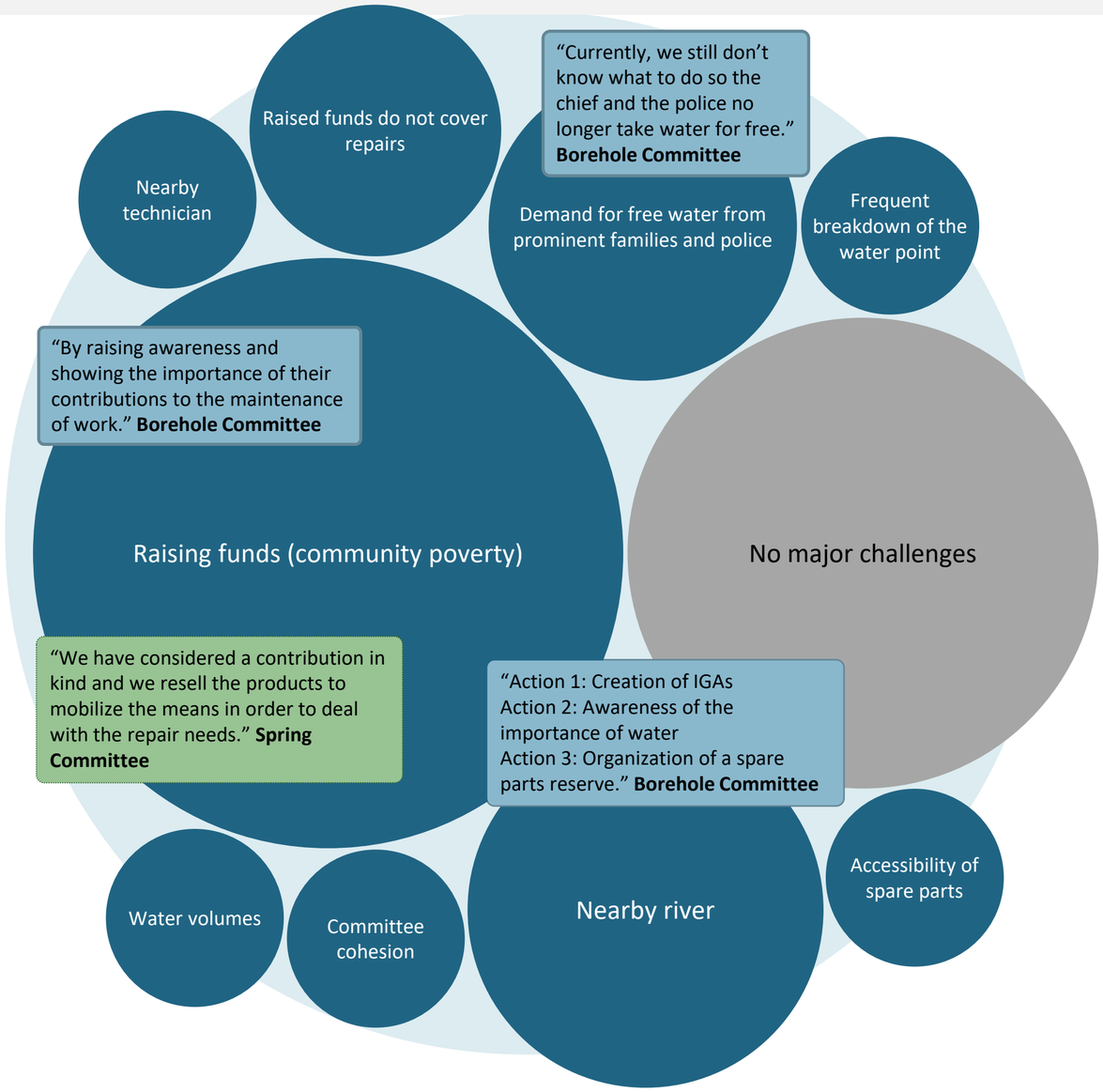
This table summarizes the 12 identified factors of success by boreholes and springs. Importantly, they are not the same for the two different water point types. For example, collaboration with the village chief and CDC was a more important factor of success for springs than boreholes. While internal organization within the WMCs was more important for boreholes than springs.

SUSTAINABILITY

Addressing Challenges

To explore the challenges that WMCs are facing, we asked WMCs about their main obstacles and then a follow-up to explore how they have addressed these challenges. Eight WMCs mentioned that they did not have major obstacles, indicating that MWCs were more likely to share factors of success than obstacles.

Overcoming these challenges focused on increasing community awareness, collaboration with the chief, installing a solar system or reservoir, fostering an income generation scheme, and finding a local technician. A sample of these ways to address challenges has been included as quotations.



This circle packing diagram illustrates the relative proportion of the 10 identified challenges (and no identified challenges). Results from boreholes and springs have been combined. The size of each circle indicates the number of WMCs who described this factor.

Theme	Boreholes	Springs	Total
Committee cohesion	–	1	1
Frequent breakdown of the water point	1	–	1
Accessibility of spare parts	1	–	1
Water volumes	2	–	1
Nearby technician	1	–	1
Raised funds do not cover repairs	2	–	2
Demand for free water from prominent families	2	1	3
Nearby river	4	–	4
No major challenges	2	5	7
Raising funds (community poverty)	4	7	11

This table summarizes the 10 identified challenges by boreholes and springs. Importantly, they are not the same for the two different water point types. For example, Borehole WMCs were more likely to describe challenges than Spring-Source WMCs, but Spring-Sources WMCs had more complications in raising funds. Boreholes also described challenges in getting people to use the borehole consistently because of a nearby river.

SUSTAINABILITY

Advice for Future Committees

At the end of each focus group with the WMCs, we asked if they had any advice for new WMCs starting out. 24 WMCs choose to share advice. Three WMCs provided multi-faceted advice which was split into phrases for analysis. Six types of advice were identified using thematic analysis which include collaboration with community members and leaders, adherence to the management structures, regular maintenance, internal WMCs functionality and income generation. There were small differences in how WMCs for boreholes and spring sources responded. Notably, spring sources were the only ones to describe the importance of IGAs, even though boreholes were more likely to have IGAs.

Collaboration with community members	Collaboration with the village chief and CDC	Adherence to the committee regulations and agreements	Ensuring regular maintenance and oversight of the water point	Organization, unity, and vision within the WMCs	Explore opportunities for income generation
Listening to communities to serve them well.	Collaborate well with the CDC.	Respect for the governance structures and agreements.	Work to ensure consistent functionality of the water point.	Love and unity often make decisions in the majority.	Invest in other sectors of life with water money for income generation.
To multiply awareness-raising so that people change their behavior.	To collaborate with the village chief to manage well and face the need.	Always comply with the text.	Regularly maintain the drawing point. Put a fence around the water point to prevent animals from accessing it.	To continue in the same direction as us.	Organize well and engage in IGAs after the feasibility study and the development of forecast operating accounts.
Do not make decisions without informing the village chief and consulting the community, especially for money.	To work in close collaboration with the village chief and the CDC.	To work according to the management tools and texts.	At the new WMC, we recommend the rigorous monitoring of activities.	Be organized.	
Always refer to the authorities to manage well.	Apply in accordance with their management tools while respecting the commitments made with the community during the elections.	Assume and ensure the permanence of drinking water for communities.	Have a vision, take care of yourself, and know how to plan the next activities.		
To cooperate closely with the chief and the CDC for any problem.	Respect the use of management tools.	Provide consistent follow-up at the source.			
Frank collaboration with the CDC and the chief.	Comply with your own tools.	Regularly maintain your water point to avoid unexpected breakdowns.			
To maintain good collaboration with the CDC and the chief.					
Harmonize with the village chief.					

Borehole

Spring source

SUSTAINABILITY

Perceived Sustainability

To explore the perceived sustainability of WMCs, we asked each WMC focus group about how they will continue after the activity is completed. All 29 WMCs noted that they anticipated continuing after the activity ends. 27 WMCs provided explanations of why they believe they can continue autonomously, without the support of the activity. Their raw responses are included below. Responses highlighted the importance of a strong WMCs and good linkages to external support. External connections included linkages to the CA, zonal health technicians, the private sector for repairs, and other WMCs. Future activities should prioritize the importance of fostering a water service provision *system* which includes the public and private sector in collaboration with community management.

Borehole

We have already evolved without Budikadidi with the different means, our repairer craftsmen who help us repair in the event of a breakdown, and our small collection of money will help us.

We have been running for several years. We are also connected with other WMCs.

The link with the various services, the training being established we can evolve without Budikadidi.

We are already working without Budikadidi.

Budikadidi has created links between the WMC and repairer craftsmen. There is also the motivation of the WMCs by the payment of 20% at the end of each month.

We work under the support of the CA which leads us and gives guidance.

Budikadidi has already connected the AVZC WMC to other partners The CAs have benefited from reinforcing relevance.

The WMC learned from Budikadidi how to work. Especially in the event of a breakdown, the WMC contacts Vergnet for the parts and the repairing craftsman for interventions.

The WMC is quite organized that it has people to repair ZT CA to accompany.

Continue to consult the other WMCs to strengthen their own capacity.

Budikadidi formed and connected us with the repairing craftsman and the CA. In addition, the motivation of the staff is defined.

With the support of the CDC and the CA.

Without difficulty, we are linked to the representative of Vergnet and collaborate well with the authorities.

The presence of CA.

Spring

We may well continue without Budikadidi, thanks to its various training courses and connection with service providers.

No problem, because we are connected.

The WMC will continue its activities without Budikadidi. The latter prepared its outing well by putting the WMC in conjunction with all stakeholders.

Initially, Budikadidi organized the training.

By working with the CA.

Without problem grind to management tools and connection to repairers.

Thanks to the different tools put in place, capacity building, and the link between the WMC and the PSP in collaboration with the various community structures, the CGR will continue without difficulty.

With the CDC and the village chief. The village CA supports us with advice, and we have a mason formed by Budikadidi for repair.

The WMC has already been working without resorting to Budikadidi since CA has accompanied us. We are responsible for the interviews and linked to the masons formed for possible breakdowns.

The WMC will continue without Budikadidi by following all the guidelines and recommendations given by Budikadidi.

We have learned from Budikadidi how to take care of it; we already live it. We had to replace the old WMC without the facilitation of Budikadidi.

Budikadidi taught us how to take care of things.

All Good. Budikadidi has been emancipated for a long time since it connected us to the mason and trained on the ZN load.

Borehole

Spring source

Section 3
Lessons and Recommendations

Overall

The Budikadidi team is optimistic that the WMCs can continue post-activity. The team highlights two reasons for this:

- The name of the RFSA, "Budikadidi" or "self-reliance," has become a motto for program participants. The team often repeated the mantra: *"We are here to help you fish, and not to give you fish."*
- The Budikadidi sustainability plan was conceived year one and is based on four pillars: sustained motivation, resources, capacity, and linkages.

Community Engagement

Lessons Learned

Community members must have both the ability and willingness to pay for water services. However, community members are more willing to pay for borehole water services than springs.

Community member must have strong trust in their WMCs to ensure that funds are collected.

Requests for payment exemptions from community leaders and officials significantly strain relationships between committees and community members.

Communities with strong social cohesion are more reliable in sharing and spreading information. This included aspects of training and behavior change.

Recommendations

Willingness can be addressed through community awareness programming. Ability can be addressed by consultative tariff setting and transparent exemption setting.

Regularly track community perceptions of WMC. The four-part measure used in this endline survey offers a potential methodology. Committees should share back to communities regularly through general assemblies or other processes.

Rely on sector chiefs and traditional leadership to address potential corruption early in the process.

Leverage adult training approaches when working with difficult concepts and approaches. For example, Budikadidi found that scenarios helped aid decision-making, and peer visits allowed for learning exchange.

Governance Systems

Lessons Learned

All institutional players, including the public and private sectors, need to be included and consulted. These structures must also follow DRC law and water policy.

Timely and open-source data remains critical for understanding and responding to challenges.

While activities can create strong systems to support sustainability, many factors remain outside of the control of interventions, such as pressure from community influencers, latent conflicts, and social cohesion.

The role of village chiefs cannot be underestimated within the service provision model. Village chiefs act as brokers between communities and committees.

Recommendations

Consider adopting a [market] systems approach that involves both the private and public sectors at the village (micro), zonal (meso), and national (macro) levels.

Consider utilizing standardized data collection systems such as m-water to collect and maintain waterpoint data.

Partnering water service provision initiatives with resilience and community strengthening may lead to more sustained outcomes.

Explore opportunities to include chiefs in committee exchange visits and other governance-related capacity-strengthening opportunities.

Water Management Committees

Lessons Learned

- Committee members must be transparently elected with clear roles and responsibilities with set term limits.
- Need mechanisms to deal with exemptions, non-payment, and remuneration of WMC members that are transparent and accepted by most community members.
- Revenue-raising activities for committee members show promise, but more work is required to explore the long-term sustainability of these endeavors.
- It is important to set tariffs through a consultative process, such as a general assembly, that the community is willing and able to pay and that covers the life cycle costing principles.

Recommendations

- Consider crafting a standard training approach that utilizes visual tools and aligns with government standards.
- Advocate for the WMC guidelines to include recommended best practices for remuneration.
- Partner water-service provision initiatives with resilience, local governance, and social cohesion activities to lead to more sustained outcomes. Strengthening local governance is important to ensure all development interventions are coordinated by one body.
- Further research is required to develop tariff-setting protocols that balance feasibility, desirability, and viability. Human-centered design could provide a valuable approach to explore.

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Visual Learning Report

SEPTEMBER 2023

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CREDITS

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ACRONYMS

English	French	Description
BHA	BHA	USAID's Bureau for Humanitarian Assistance
CA	CA	Community Assistant
CDC	CAC	Community Development Committee
CDF		Congolese Francs
	CNAEHA	National Water, Hygiene, and Sanitation Committee
	CPAEHA	Provincial Water, Hygiene, and Sanitation Committee
CRS		Catholic Relief Services
	DAS	Directorate of Sanitation and Health
DRC	RDC	Democratic Republic of Congo
	DZ	
	ETD	Decentralized Territorial Entity
IGA	AGR	Income Generating Activity
JMP		Joint Monitoring Programme (UNICEF/WHO)
	OCE	Congolese Water Office
	ONHR	National Rural Hydrogeology Office
RFSA		Resilience Food Security Activity
TZ		
WHO	OMS	World Health Organization
WMC	CGE	Water Management Committee
UNICEF	UNICEF	United Nations Children's Fund
USAID	USAID	United States Agency for International Development
USD	USD	United States Dollar