

**IRC'S SUPPORT FOR IMPROVED SERVICE PLANNING IN
MUNICIPALITIES: CHALLENGES, RESULTS AND SUSTAINABILITY**

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IRC

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1. Context

USAID's West Africa Water Supply, Sanitation and Hygiene program (WASH-USAID-WA) was implemented between 2011 and 2015. Its overall objective was to increase sustainable access to safe drinking water, sanitation and hygiene in Burkina Faso. To this end, IRC Burkina Faso's primary task was to implement approaches to sustainably manage drinking water supply services at scale (Triple-S). Specifically, IRC Burkina Faso was tasked with identifying shortcomings in municipal water supply service management and implementing replicable solutions that are adapted to the WASH sector's vision and capabilities.

Rural water service management reform has been taking place in the Sahel region since 2008. It has defined the roles and responsibilities of the service authority and operators responsible for the water supply service. It has also set up an operational framework for water users' associations (WUA) and local operators to run village water supply services. IRC Burkina Faso has reviewed the performance of existing institutions and, in particular, their overarching regulatory framework. Municipalities are responsible for coordination, pricing and providing support, including to the WUA. The municipality must also formalize its relationship with WUAs, the local operator and local mechanics and must monitor these contracts. In addition, it must set the water prices for its area (fees, pricing at the water point) and identify the support it needs to function effectively, at the same time as providing support to the WUAs.

The regulatory framework also defines the obligations of the WUAs. The WUAs have three main responsibilities, which include coordinating water point managers and local mechanics, as well as cash management, such as collecting tariffs and remunerating local service providers. Although not identified as such in the regulations, a third, cross-cutting, responsibility is that of user representation. Although the regulations are now in place, how have they been implemented? What are the gaps and how can these be addressed? What results have been achieved a few years later? This report describes the main progress made by two municipalities in the Sahel: Aribinda and Gorgadji.

2. 2012 Baseline: regulations are not applied

In 2011-2012, IRC conducted a comprehensive study in 8 municipalities (including Aribinda and Gorgadji) to establish a comprehensive baseline. Its aim was to assess the performance of municipalities and WUAs in order to: 1. Target interventions to improve the responsibilities that are being carried out effectively, and 2.

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Propose changes to scale up those responsibilities that have been neglected despite their inclusion in the regulations.

From a formal standpoint, the municipality of Aribinda has made good progress in implementing the reform. However, only one WUA meets all of the reform's criteria. In practice, the situation within WUAs is mixed; some manage all boreholes under their jurisdiction, while others do not manage a single borehole. The extent to which WUAs carry out their coordination and cash management roles bears no correlation to their level of compliance with the regulations. The service is season-oriented, as most of the boreholes are not used or managed during the rainy season. Most water point managers are unpaid, thus water points are mainly managed on a voluntary basis. Tariffs are low and vary at the municipal level. Based on the collection rates, WUAs are not currently in a position to cover the cost of major borehole repairs.

In the municipality of Gorgadji, the main formal elements for managing water supply systems as set out in the reform are in place both at the municipal and WUA levels. All villages have a WUA but none of these WUAs has been established in accordance with the legislation. In addition to having low levels of education, most WUA Executive Committee members suffer from poor legitimacy, which results in the handpumps not being properly managed. Only one WUA manages the entire collection of boreholes and over half of the municipality's handpumps are outside their control. However, there is a manager in place for almost all of the municipality's handpumps. In other words, the scale up of handpump management required by the reform had not taken place in Gorgadji in 2012. In light of these findings, IRC Burkina Faso has sought to work with local authorities to address some of these gaps.

3. Actions carried out in the municipalities of Aribinda and Gorgadji: service monitoring and accompanying measures

The activities carried out by the Triple-S project in Gorgadji and Aribinda can be grouped into 3 categories:

1. Implementation of a monitoring and evaluation (M&E) system;
2. Planning and problem-solving activities;
3. Capacity-building activities.

However, it is to be noted that the results of these activities feed into each other; in other words, these are not isolated activities but are instead interlinked.

3.1. Implementing a monitoring and evaluation system

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The process began with the General Directorate for Water Resources and municipalities developing and approving a joint water supply monitoring and evaluation framework. Two workshops were held with mayors, municipal technicians and NGOs to develop the monitoring and evaluation framework. Next, a workshop was organized in each municipality to approve the relevant indicators. In order to improve local ownership, the municipal technicians in charge of water supply and sanitation services were given the task of preparing and facilitating the workshops. They received coaching on preparing and presenting the water supply monitoring and evaluation system. These workshops were attended by the Mayor, the Secretary-General of the municipality, the focal point (in charge of data collection for the DGRE), the local mechanics and members of the Municipal Water and Sanitation Board (AECB).

Through this participatory process, a task force was set up to support and collect data from WUAs. The task force members were selected using criteria established by the municipalities and they were trained on data collection. A data collection strategy was then put in place. This strategy includes helping WUAs to hold quarterly meetings and General Assemblies at which they review their technical and financial borehole management results, as well as user satisfaction, not only with their management, but also with other aspects of the service. During these meetings, the task force member in charge of assisting the WUA collects the monitoring data and information required.

IRC has assigned two Technical Assistants to the Sahel DRARHASA to help supervise these activities, as well as to help process the data collected and write municipal public water service performance reports.

One of the sustainability measures taken to ensure municipal monitoring included providing each WUA with a blackboard to help them present information at the quarterly meetings and general assemblies. On their own initiative and in accordance with their limited resources, the two municipalities have decided to monitor a number of indicators to ensure service sustainability. These include the volume of water delivered by functioning boreholes equipped with hand pumps, the water quality, the revenue collected from users, the amount charged for water for cattle and compliance with the pricing policy adopted by the small piped system network operator. Municipalities intend to use the fees collected to finance the MWSC's visits to WUAs.

3.2. Establishing an annual planning process

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This activity consists of organizing a forum to plan WASH-related activities in each municipality. It is to be noted that, in 2012, the municipalities of Gorgadji and Aribinda did not have an approved local development plan for water supply and sanitation.

Once the data and information collected from the WUAs (during quarterly and semi-annual meetings) and from the local mechanics (during the monthly meeting with the municipal technician) have been processed, a report on the water utility's performance is drawn up every six months.

After the report has been made available, each municipality (with the support of IRC) invites local WASH partners to a presentation of findings and planning workshop. During the workshop, each municipality reviews its action plan and presents the performance assessment results to its partners. Participants use the monitoring and evaluation results to identify where the main issues lie. Partners then present their activity schedule for the following year. Some of the issues identified can be resolved through the activities already planned. Where this is not the case, participants define solutions and identify the required resources to implement these.

All activities are scheduled within a logical framework. To implement this action plan, the municipal technician prepares a monthly activity dashboard and submits it to the SG and the Mayor for approval at the beginning of each month. The results are assessed at each month-end to ensure proper follow up. Thus, the annual plan is assessed at the mid-term point to monitor the implementation of planned activities and identify and address any bottlenecks.

3.3. Revitalizing existing WUAs in Gorgadji

Since being set up, WUAs in Gorgadji have been struggling to function effectively due to a lack of legitimacy in the villages. They do not have control over some of the community boreholes as a number of local stakeholders, including municipal councilors and the head of the village, have taken over the management of certain boreholes, despite this complicating the task of the WUAs and running counter to the notion underpinning the reform. Thus, meetings of those WUAs affected were organized by the municipality with support from IRC. At these meetings, WUAs outlined the borehole management situation and listed the inherent difficulties. The participants were divided into groups that contained members of WUAs with different levels of performance. These meetings also provided an opportunity to discuss solutions. The meetings were held on 21, 22, and 23 January 2015. They were extremely successful; WUAs that were not using secure local banking systems recognized the value of such an institution for helping ensure the

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sustainable management of water supply services. In terms of achievements, the collection rate of municipal fees for the preventive monitoring of boreholes was improved.

It should be noted that in December 2014, over 75% of WUAs in Gorgadji held an amount equivalent to 200,000 CFA Francs in their accounts. In March 2015, 63% of WUAs had been able to save more than 200,000 CFA Francs. The highest amount is that held by the WUA of Boudougoudji, which had over one million CFA Francs in its account at the end March 2015. Overall, bank accounts are consistently being used by WUAs.

3.4. Improving the water supply infrastructure database: borehole registration (registration card) and geo-referencing

The aim of registering boreholes fitted with handpumps is to produce an improved database that lists the location and all available performance information for each borehole. It is to be noted that the current registration process is not reliable because of the lack of spatial reference information. To help mitigate for this, the geographic coordinates of each borehole were collected using the AKVO Flow data collection system to further improve the database. Registration and geo-referencing form part of a consolidation approach to speed up the tracking of WASH infrastructure and services at the municipal level.

3.5. Specific training

- **Training on public water supply service governance**

This is an information and discussion workshop for DRARHASA technicians and municipalities. The aim is to encourage professionals to discuss the challenges associated with the decentralized management of WASH services in rural Burkina Faso (with an emphasis on drinking water). Upon completion of this workshop, DRARHASA and municipal technicians had an overall view of the issues and an improved understanding of their responsibilities. They had also identified approaches and procedures for assuming these responsibilities more effectively.

- **Training on Excel data processing software**

This training was organized by IRC from 15 to 19 December 2015 as part of the capacity-building activities for Regional Directorate staff and the municipal technicians. It's main aim was to enable the staff to:

- Design spreadsheets using basic and advanced features of Excel;

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- Learn how to use basic functions to set up simple tables and pivot tables, to program calculations and produce and export graphs and tables;
- Present field data or information from the databases effectively.

- **Training of female WUA Executive Board members**

This training, organized by CARE and FIU, was held on 27 and 28 March 2015 in Gorgadji and on 30 and 31 March 2015 in Aribinda. Its aim was to build the capacities of women on the WUA executive boards to effectively influence the quality of sustainable WASH services. The training helped build capacity and knowledge.

- **Exchange visit to Niger**

The main aim of this visit, which took place in June 2014, was to learn more about Niger's experience of managing, conducting M&E, overseeing and developing multi-village small piped water supply systems in order to improve the management of similar infrastructure in Burkina Faso.

- **Local stakeholders' involvement in lesson-sharing meetings (such as African Water Week in Dakar in 2014 and the two decentralized cooperation mission workshops in 2014 and 2015, etc.)**

In addition to these training sessions, the two Technician Assistance staff provided by IRC ensured permanent support was available both to the municipalities to help them implement their WASH-related activities and to the municipal technicians to help them perform their daily tasks.

4. Challenges and lessons learned

4.1 Challenges

Given the monitoring and evaluation results and WASH service delivery, the challenges faced by the municipalities of Gorgadji and Aribinda are substantial:

- **Capacity-building of municipal staff**

The poor capacity of municipal stakeholders to understand the empowerment process underpinning the transfer of WASH responsibilities and service provision to the municipalities was highlighted during implementation of the monitoring and evaluation system. Firstly, the municipal authorities are finding it difficult to exercise leadership vis-à-vis their partners. In addition, the municipal technician in Aribinda has

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failed to successfully assimilate and take ownership of the many capacity-building opportunities provided. The same can also be said for the MWSC members responsible for data collection. The challenge here involves developing the MWSC members' capacities and ensuring they have the human and financial resources required to enable them to carry out monitoring / municipal planning.

- **The sustainable financing of monitoring and evaluation activities**

This is one of the major challenges to taking effective ownership of the project's achievements. The municipalities of Aribinda and Gorgadji are struggling to include monitoring and evaluation as a separate heading in their budgets. Although the municipalities appreciate the impact that implementing monitoring and evaluation has had, they now need to wean themselves off project financing for this activity and find a sustainable source of funding.

- **The DGREs' gradual transfer of INOH funds to the municipalities**

This is one of the solutions to the challenge outlined above. As recommended in the National WASH plan's monitoring and evaluation manual, and in accordance with the subsidiarity principle, transferring these funds to the municipalities would help improve the efficiency of public water supply service monitoring and evaluation.

- **Reinforcement of the 'support to service authorities' principle**

The sovereign role of the Regional Directorate (DRAHRASA) is not visible at municipal level. Providing support to service authorities is a prerequisite for improving water supply services in the two municipalities. This requires the Regional Directorate to shift its focus from 'substitution' to 'supporting' in order to ensure ownership through learning. The WASH sector must develop tailored processes for providing sustainable and effective technical assistance to municipalities. To overcome this challenge, the DRARHASA must be staffed with the right personnel who have the required skillset.

4.2 Lessons learned

Despite the difficulties in monitoring performance, local stakeholders have realized the important role proper management plays in ensuring the sustainability of water supply services. Particular attention has been paid to monitoring and evaluation as this helps ensure existing water services are properly managed. The municipal monitoring and evaluation results have driven the authorities to take ownership of the M&E system. Thus, municipalities have set up a process to adopt an annual action plan to coordinate partners'

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activities and organize the work of the municipal technician and MSWC members. Such coordination is essential for providing an overview of the activities taking place within the municipalities' jurisdictions and for meeting people's needs more effectively. Establishing monitoring and planning tools will further empower the municipalities to oversee service provision.

Meetings between WUAs, community leaders from each village and the authorities were held from 21 to 23 December 2014 to improve the WUAs' control over community boreholes. These meetings were set up under the aegis of the Regional Directorate with technical and financial support from IRC. The key point here is that the reform can only be successful if the WUAs are fully in control of managing community boreholes. Efforts to provide capacity-building and support the WUAs in their roles must therefore be pursued, otherwise it will be necessary to consider other management models (such as the professional maintenance of boreholes, inter or supra municipal management schemes, etc.).

To empower them in their role, municipal technicians require equipment (computers, etc.) and proper training on handling monitoring and evaluation data. To this end, they were provided with one training session on Excel. It is important to bear in mind that without a competent technician, the municipality cannot monitor performance or make informed planning decisions.

5. Monitoring and evaluation results

The process of implementing the monitoring and evaluation system initially involved consolidating the WUAs understanding of their role. Infrastructure functionality and performance was then assessed by identifying the number of interventions carried out by local mechanics. Data was collected from the WUAs using information from the quarterly meetings, General Assembly and monthly meetings between the municipal technician and local mechanics, as well as from the statistical household surveys conducted by MWSC members. Once collected, this data was processed and analyzed. The data listed below (see Tables 1 and 2) outlines the findings of four distinct monitoring cycles for the two municipalities.

It was not possible to collect all the data in Gorgadji, as the villages were inaccessible during the winter months (June-December 2014) and the WUA executive board members were unavailable because they were working in the fields.

The results of some indicators (such as the number of boreholes) have occasionally fallen; however, this is due to a number of various factors. For instance, the drop in the number of boreholes is a result of an in-depth assessment to identify those boreholes no longer in use. As most of these boreholes could not be rehabilitated, they were excluded from the database as they no longer provide a service.

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In contrast, some indicators have improved from one monitoring cycle to the next. This is the case for breakdown durations, for example. According to the regulatory framework, breakdowns must be repaired within a maximum of 3 days; however, in the first year of the monitoring cycles, the average breakdown duration far exceeded this (6 days on average at the end of Dec. 2013). In late March 2015, breakdowns had been reduced to less than one day in length in Gorgadji. These results reflect the WUAs' increased control over borehole management, as well as improved tariff collection, which means repairs can be carried out more quickly. In Aribinda, the average breakdown length is still over 3 days. This is in large part due to the fact that a number of boreholes have been out of order for an extremely long time, as illustrated in the following table.

Villages in Aribinda	Borough	Borehole name	Breakdown duration
Gorel	Gorel Mangou	Forage Gorel Mangou	Since November 2014
Gorel	Pissantaga	Forage de Pissantaga	Since November 2014
Gorel	Roumouldè	Forage Roumouldè	Since October 2014
Gasseliki	Sakordé	Sakordé	9 months
Gasseliki	Ragnooré	Ragnooré Pompe Elevage	Over two years

Source: Bilan des performances des services publics d'eau potable dans la commune d'Aribinda du 1er trimestre 2015, Commune de Aribinda, June 2015

The proportion of paying users in Aribinda increased from 58% in 2013 to 86% in 2014. There was also an improvement in the WUAs' financial position in the two municipalities. Revenue in Aribinda rose from 9,162,200 CFA Francs in 2013 to over 26 million in 2014 and doubled in Gorgadji over the same period. Expenditure also increased. Indeed, the support provided by the municipality to the WUAs raised their awareness of the fact that user contributions are to be used to maintain and repair boreholes. WUAs do not hesitate to call the local mechanics whenever there is a breakdown. The recovery rate of the annual water royalty has also improved; in Gorgadji, where no payments were recorded in 2012, 24% of royalties had been collected at the end of 2013.

5.1 Water supply service performance in Gorgadji (2013-2015)

Table 1: Summary of the main indicators at key stages of the municipal monitoring cycle

Indicators	Cycles				Observations
	Oct - Dec 2013	Jan-Mar 2014	Oct - Dec 2014	Jan-Mar 2015	

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Indicators	Cycles				Observations
	Oct - Dec 2013	Jan-Mar 2014	Oct - Dec 2014	Jan-Mar 2015	
Total number of boreholes with handpumps	150	147	135	133	The reduction in the number of boreholes over time is due to the progressive exclusion from the database of boreholes that cannot be rehabilitated.
Number of community boreholes with handpumps	137	125	112	112	Idem
Number of boreholes with handpumps managed by WUAs	15	62	68	86	The increase in boreholes under WUA control is probably due to the awareness-raising meetings and discussions held with WUAs and local authorities organized by IRC.
Functionality rate (%)	90	86	92	98	Functionality rates have increased since the monitoring system was set up. This is linked to the increase in boreholes under WUA control.
Total number of breakdowns	48	76	28	79	The number of breakdowns increases from one season to another due to the additional pressure placed on water resources and the increased use of handpumps in the dry season. The poor quality of the spare parts used also leads to further breakdowns.
Average breakdown length (in days)	6	3	2	1	There has been a considerable reduction in the duration of breakdowns. This means that WUAs are managing an increasing number of boreholes and are collecting more tariffs from users. There is therefore more money available to pay the mechanics, who can carry out the repairs much quicker.
Maximum number of breakdowns on one borehole	4	7	5	2	The number of breakdowns on one borehole reflects the quality both of the mechanic's work and of the spare parts used. Many complaints have been received. According to the mechanics, a large number of breakdowns are caused by depletion of the water table.
Satisfaction with water quality	92%	N/A	93%	N/A	The rate has slightly increased.
Number of boreholes where water quality is questionable	5	12	9	6	The figures vary in accordance with the managers' attendance at the WUA quarterly meetings and with the season when the borehole is being used.

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Indicators	Cycles				Observations
	Oct - Dec 2013	Jan-Mar 2014	Oct - Dec 2014	Jan-Mar 2015	
Satisfaction with water quantity	71%	N/A	80%	N/A	A number of boreholes have been rehabilitated and new boreholes have been installed. In addition, effective management has helped increase satisfaction.
Satisfaction with waiting times (crowding)	64%	N/A	79%	N/A	Users' opinions are highly dependent on their involvement in the WUA. The satisfaction rates here cover only 2% of users.
Number of boreholes where conflict has been reported	9	17	12	16	The increase is largely due to conflicts between pastoralists and domestic users as there are no water points available for livestock during the dry season.
Number of paying households	3,703	4,431	4,431	4,522	WUAs now conduct comprehensive inventories of households using boreholes. However, this was not the case at the beginning of the monitoring cycle when the WUAs issued made-up figures. The increase in users is due to natural population growth.
Number of paying households up to date with payments	1,308	715	1,516	2,356	The number of paying users up to date with payments has increased since implementation of the monitoring system.
Satisfaction with distance to borehole	79%	N/A	79%	N/A	User satisfaction with the distance the water point has remained stable as new boreholes have been drilled to replace boreholes no longer in use.
Satisfaction with the affordability of water	91%	N/A	97%	N/A	Water tariffs are acceptable to users.
Estimated WUA revenue (municipal level)	6,463,850	N/A	4,584,700	7,091,500	Not all boreholes have been included. These figures have been extrapolated (taking the average estimated revenue of boreholes and multiplying this by the number of boreholes not under WUA control).
Actual WUA revenue (municipal level)	2,280,000	N/A	4,618,890	4,193,080	The fall in revenue in the first quarter of 2015 indicates that many users have not paid their annual contributions at the beginning of the year.
Actual WUA expenditure (municipal level)	820,370	N/A	2,764,625	1,545,465	The increase in expenditure is due to multiple breakdowns on certain boreholes, which have resulted in mechanics being called out at fairly

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Indicators	Cycles				Observations
	Oct - Dec 2013	Jan-Mar 2014	Oct - Dec 2014	Jan-Mar 2015	
					regular intervals. Some WUAs claim expenditure is increased by the poor quality of spare parts and mechanics overcharging for repairs.
WUA cash balance (municipal level)	1,978,425	N/A	753,190	1,253,190	Some WUAs have large amounts of cash as they are having problems accessing the WUA bank account following the replacement of executive board members.
WUA account balance (municipal level)	1,052,171	N/A	1,712,228	4,158,600	The WUAs account balance has considerably increased. This highlights the impact of the WUA awareness-raising meetings initiated by the municipality with the support of IRC. New bank accounts have also been opened.
Satisfaction with WUA governance	77%	N/A	84%	N/A	The satisfaction rate has increased as a result of the awareness-raising activities carried out with the WUAs.
Satisfaction with the water point manager	95%	N/A	80%	N/A	The rate is declining as some managers still do not fully understand their roles.
Water royalty recovery rate	29%	N/A	33%	38 %	The recovery rate has been increasing since implementation of the monitoring system.
Number of payments to local mechanics by the municipality	N/A	N/A	N/A	N/A	Local mechanics were paid for the first preventive maintenance round of 2014. However, the second round has been delayed.

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5.2 Water supply service performance in Aribinda (2013-2015)

The following table outlines the changes to the main indicator results seen during implementation of the monitoring system from 2013 to 2015. It is to be noted that the user satisfaction assessment is carried out every six months or during the WUA General Assembly. However, given the very low attendance at GA meetings, these statistics do not necessarily reflect the views of the villages' inhabitants; hence there are no comments against these indicators.

Table 2: Summary of the main indicators at key stages of the municipal monitoring cycle

Indicators	Cycles				Observations
	Oct – Dec 2013	Jan– Mar 2014	Oct – Dec 2014	Jan- Mar 2015	
Total number of boreholes with handpumps	251	257	239	241	The decrease in the number of boreholes is due to the downgrading of boreholes that no longer function and cannot be rehabilitated.
Number of community boreholes with handpumps	210	209	192	195	Idem
Number of boreholes with handpumps managed by WUAs	17	102	134	151	WUAs' influence/control over boreholes has increased over the years as a result of the awareness-raising campaigns conducted by MWSC members.
Functionality rate (%)	94%	92%	92%	97%	Implementing the reform is a long process. WUAs are beginning to assume more accountability and it has taken a long time to see tangible results. This is perhaps why it is only from 2015 that the functionality rate has begun to increase.
Total number of breakdowns	58	221	89	180	The number of breakdowns has increased over time. Overall, the threshold is acceptable as there were fewer breakdowns over the first quarter of 2015 than over the same period in 2014.
Average breakdown length (in days)	5	9	6	5	The length of the average breakdown has remained relatively stable. However, it has been adversely affected by a number of long breakdowns, which are often ignored by the WUAs, managers

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Indicators	Cycles				Observations
	Oct – Dec 2013	Jan– Mar 2014	Oct – Dec 2014	Jan- Mar 2015	
					and inhabitants.
Maximum number of breakdowns on one borehole	3	7	13	4	The high number of breakdowns is generally due to the WUAs purchasing poor quality spare parts.
Satisfaction with water quality	89%	N/A	91%	N/A	
Number of boreholes where water quality is questionable	8	12	6	8	These are roughly the same boreholes as above. Since this relates to a perception of quality by users, the number differs in accordance with the perception of those present at the meeting.
Satisfaction with water quantity	78%	N/A	85%	N/A	Changes may be related to the service improvements made as a result of reducing the length of breakdowns.
Satisfaction with waiting times	61%	N/A	82%	N/A	The increase in the number of boreholes has no doubt helped reduce waiting times. The WUAs' initiatives to better address breakdowns may also have influenced this result.
Number of boreholes where conflict has been reported	33	45	9	11	This figure is falling because WUAs are implementing more and more initiatives to improve service management. Introducing new boreholes and reducing the length of breakdowns have also helped reduce conflict.
Number of paying households	15,826	13,563	15,385	15,123	This figure varies because most WUAs do not keep written records of paying households.
Number of paying households up to date with payments	9,222	6,611	13,248	7,707	The number of paying households with up to date payments has increased since implementation of monitoring system.
Satisfaction with distance to borehole	69%	N/A	82%	N/A	
Satisfaction with the affordability of water	71%	N/A	88%	N/A	Affordability is not a limiting factor for households.

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Indicators	Cycles				Observations
	Oct – Dec 2013	Jan– Mar 2014	Oct – Dec 2014	Jan- Mar 2015	
Estimated WUA revenue (municipal level)	13,262,550	N/A	6,188,375	N/A	This data is to be analyzed with caution as not all households using the boreholes pay the water tariff.
Actual WUA revenue (municipal level)	9,162,200	7,775,625	26,303,236	7,452,810	The rise in the number of paying households with up to date payments has meant revenues have also increased. Users are aware of and accept water tariffs. However, some of the statements received were oral submissions only.
Actual WUA expenditure (municipal level)	4,694,225	2,958,485	9,481,810	2,646,150	Expenditure has increased because WUAs are more aware of the importance of proper borehole maintenance. Mechanics have also been put in place through measures taken by the Municipal Council. However, some of the statements received were oral submissions only.
WUA cash balance (municipal level)	0	0	14,846,886	3,162,712	It is difficult to identify trends from these figures as the data is not available for all WUAs.
WUA account balance (municipal level)	0	2,211,521	2,200,081	2,779,205	Despite better tariff collection, the WUAs' account balances have remained roughly the same. As a result of the awareness-raising efforts of MWSC members, WUAs hold onto less and less money themselves.
Satisfaction with WUA governance	51%	N/A	59%	N/A	
Satisfaction with the water point manager	49%	N/A	76%	N/A	
Water royalty recovery rate	24%	48%	51.6%	0.04%	The recovery rate has changed since implementation of the monitoring system. Nevertheless, the collection rate for 2015 is very low. The objective explanation is that there has been no preventive monitoring of boreholes. However, some MWSC members and WUAs have misunderstood the roles of the Special Delegation (that has replaced

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Indicators	Cycles				Observations
	Oct - Dec 2013	Jan- Mar 2014	Oct - Dec 2014	Jan- Mar 2015	
					the municipal council since the 2014 political coup). As far as they are concerned, the dissolution of the municipal council means there is no longer any reason to pay the royalty fee.

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6. Conclusions

The implementation of monitoring activities in the two municipalities has helped raise and solve a wide range of problems and thus satisfactory progress has been made in the management of the public water supply service. Indeed, from late 2013 to early 2015, there has been:

- An increase in the borehole functionality rate;
- A reduction in the number and average duration of breakdowns;
- Increased WUA control over boreholes;
- An increase in the number of users paying to use the service;
- An improvement in the water royalty recovery rate;
- Relatively effective use of the revenue received (increased expenditure on repairs); until recently, funds were deposited without being used for maintenance and repairs.

Also, it should be noted that specific problems, such as the WUAs' control over boreholes, were resolved through special consultations and meetings. However, in order to achieve satisfactory results for other indicators, such as user satisfaction or the number of boreholes with questionable water quality, longer-term action that is beyond the scope of the municipalities is required.

As the USAID WA-WASH program draws to a close, IRC has been working to ensure the two municipalities have a maximum number of tools available to allow them to continue monitoring independently. Surveys and input and analysis spreadsheets have been consolidated and handed over to the municipal technicians, who have also received training and support to enable them to continue with their work. In addition, IRC has worked with the municipalities to set up a borehole registration system so that every borehole has a unique code and associated bar code (readable by Smartphone). Basic information, such as the borehole's geographic coordinates, type of structure, a photo and its common name, is then linked to this code. Thus, within the municipal database, information on the functionality and performance of each borehole is linked to a borehole code. This system is compatible with the codification used by the national inventory of water facilities (INOH) and will greatly facilitate the processing and storing of information over time.

A similar transfer process was initiated at village level. In June 2015, IRC provided the 204 WUAs with a blackboard on which monitoring categories had been preprinted to help the WUAs (and AECB members and the technician) with data collection. Thus, each WUA can check the appropriate borehole monitoring boxes and note down revenue, expenditure and other comments about borehole functionality on the board. Not

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only is this a simple and useful way to review the activities to be conducted, but the blackboard also provides the entire population with an overview of the WUA's management performance.

Given the low level of ownership of the actions implemented, municipalities deserve longer-term support. Unfortunately, the major constraint of project-based support to service authorities is the fact that it is time restricted, with the time available often being insufficient to complete capacity-building activities and processes such as municipal monitoring. How are municipalities to be provided with long term support? The answer most certainly lies with public institutions.