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Developing district WASH investment plans, a cornerstone of the district wide approach

Paper for the WASH systems symposium

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The Government of Rwanda (GoR) has set ambitious targets of achieving universal access to basic water supply and sanitation by 2024 and providing safely managed services by 2030, in alignment with the Sustainable Development Goal (SDG) 6 targets. To do so, the GoR has adopted the "District Wide Approach" (DWA), a systems-based approach which considers the district as the entry point whilst recognising the broader national enabling environment. At district level, the holistic approach supported by Agenda for Change (A4C) partners seeks to strengthen the district as a service authority in all of its core functions, including planning for universal and sustainable services via the development of a District WASH Investment Plan.

The District WASH Investment Plan is a process as well as an output, which draws on technical (i.e. collecting and analysing data on services and costs), strategic (i.e. visioning, milestones and target setting) and collaborative (i.e. seeking consensus on pillars) capacities and uses various tools to collect and analyse data to support decision-making. The development of District WASH Investment Plans is ongoing in various districts in Rwanda and builds on similar experiences in other countries, including Ethiopia and Honduras, where A4C partners are active.

Introduction

Achieving universal and sustainable access to Water, Sanitation and Hygiene (WASH) services is only possible with government leadership and political commitment, and when policy makers and service providers are held to account for responsive services that reach all communities. Making this happen requires (i) strong institutions that are accountable, responsive and able to deliver and sustain services; (ii) existence of sector policy and implementation strategy; (iii) sector coordination; (iv) sustainable finance; and (v) performance monitoring which can aid regulation of service providers and allow for reflection on inevitable challenges, so that these are understood and addressed in a timely manner.

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The development of District WASH Investment Plans is ongoing in various districts in Rwanda. A4C partners — Water For People, WaterAid, IRC and Aguaconsult— are all active in supporting the process in Rwanda. This paper provides an overview of the process, and some experience from Rulindo (Water For People) and Bugesera (WaterAid) to illustrate the process currently being applied more broadly.

From theory to practice: origins of the district wide approach in Rulindo District, Rwanda

Divided into 30 districts, Rwanda has decentralised many responsibilities directly to districts. Oversight on delivery of all services, with specific responsibility for ensuring comprehensive and sustainable WASH services, is at the district level. Rulindo District is one of the five districts of the North Province of Rwanda. It is constituted of 17 sectors, 71 cells and 494 villages. It covers an area of 567 km2 with a population of 287,681. (NISR, 2012)

In 2008, the Ministry of Infrastructure (MININFRA) requested that Water For People work in Rulindo. From this date until 2010, Water For People's interventions focused in four sectors and followed traditional development and water projects. Recognising that this work would not be sustainable or reach everyone in the district, in 2010 Water For People and Rulindo district leadership developed an ambitious plan: to reach Everyone in the District of Rulindo with safe and reliable drinking water and sanitation services, and to develop the institutions and local capacity so these services last Forever. This idea was quickly supported by the MININFRA, whose technical and financial support have been critical since the programme's

inception. The programme served as a departure from traditional water provision projects that were implemented sporadically and failed to sustain water services. It also responded to Rwanda's Vision 2020, adopted in 2000, which defined seven pillars of development, with Pillar Four stating that all Rwandans must have access to clean water. (MINECOFIN, 2012)

In May 2016, the activities that had taken place in Rulindo were reviewed by the National Water and Sanitation (WATSAN) secretariat, housed within MININFRA, and re-framed as the District Wide Approach (DWA), with guidance on the District Roadmap outlining the steps of this approach.

What is the roadmap?

The following steps capture the intention of the DWA process now being followed at national level. The initial process in Rulindo included all of these steps, but not through such a clearly deliberate and linear process.

a) Assessment of the status of WASH infrastructure, services and institutions

At this stage, the district, with the support of its partners, assesses the current status of i) WASH infrastructure, ii) quality of services in place (service levels), iii) the capacity and performance of the different service providers in charge of operation and maintenance, iv) the capacity and performance of the district authority itself and v) understanding of the water resource availability. This can be thought of as a "baseline" assessment.

In 2012, a comprehensive baseline survey of water and sanitation services was conducted in Rulindo. Using a series of indicators, the data revealed that only 28% of the population had access (defined as people collecting water according to the government's standards for quality, distance, time, reliability etc.) to safe and reliable drinking water and just 4% of the population had improved latrines in their households that they used and maintained.

b) Plan for universal and sustainable WASH services

At this stage, the data collected as part of the assessment stage is used to develop a comprehensive District WASH Investment Plan to achieve universal and sustainable services. This will include i) defining targets at district level, ii) identifying activities required to achieve this target and iii) developing a financial and operation plan. The duration of this plan should be determined in each district, but would ideally be aligned with the current planning cycle and duration, or with plans for achievement of national targets.

In Rulindo, well-trained engineers supervised by engineers from each partner to the programme —the development department of the national utility (WASAC), District Government staff and Water For People— created detailed water engineering designs and estimated costs for implementation of projects. In addition to designing new water schemes, estimates were made of necessary replacement and repairs. The total capital investment (CapEx) required was US$25 million. Through a collective commitment from national government, local government and Water For People, the resources to fund the plan were committed on a shared cost basis.

In the first years of implementation in Rulindo, the focus on CapEx masked the need for an assessment and commitment to ongoing capital maintenance expenses (CapManEx) and direct support costs. An asset assessment process and a district capacity assessment methodology have now been developed and incorporated into the DWA roadmap, so that a more comprehensive understanding of full-life cycle costs is now possible, and of course necessary, to establishing a fully-functioning service environment.

c) Implement the District WASH Investment Plan

At this stage, on an annual basis, elements of the comprehensive plan are prioritised and carried out dependent on the ability to i) resource the plan and balance the ii) delivery of new services (through new construction, extensions, or rehabilitation) with iii) strengthening capacities of service providers and authorities.

In Rulindo, CapEx has been provided from three sources. As district capacity has been strengthened with the establishment of a District WASH Board, the direct support costs have increased, and all staffing costs are met from local district resources. With a better understanding of the CapManEx requirements, provision for these will need to be included within District Investment Plans going forward.

Water For People has been instrumental in supporting an annual service level monitoring exercise, as well as a reflection and planning process based on an analysis of that data. It has also provided support to strengthening service provider capacity and in building understanding of the water resource availability in the district through water resource assessments. All of these components will need ongoing support and resourcing and in some cases this will be better provided at a national level, through development of national monitoring, for example.

d) Monitor the implementation of the District WASH Investment Plan and WASH services in the district

At this stage and on an ongoing basis, the District WASH Investment Plan should be monitored, using a set of pre-determined indicators and processes. Many of the indicators used in the assessment stage will comprise the core set of monitoring indicators/questions. At a minimum, the monitoring needs to include data on service levels at the community and institutional (e.g. public clinics and schools) levels, collected on a regular basis.

As described above, annual service level monitoring has taken place in Rulindo since 2012, and it is hoped that the establishment of a national monitoring system will institutionalise this process across Rwanda. Through regular and at least annual monitoring, it has been possible to identify challenges and weaknesses of the service environment and plan.

Progress to date in Rulindo

Table 1 demonstrates the changes that have taken place in service levels in the last six years.

Rulindo's challenges and learning

Over the course of the last six years, there have been important challenges and lessons learned from the process of building a comprehensive service environment in Rulindo.

Systems strengthening and capacity building. It has been necessary to strengthen both the capacity of the district government and the private operators involved in provision of water and sanitation services. A District Water Board was established in Rulindo in 2014 as the basis for providing oversight of WASH services in the district and to prioritise investment. The private operators (service providers) have also been supported to develop more efficient operations. This support needs to continue, as well as the creation of appropriate efficiency incentives through new tariff and contractual arrangements. Additionally, a customer feedback platform has been established to provide early-warning of service failure and enhanced accountability of both service provider and service authority. With this system in place, the District Water Board can respond more effectively and efficiently when systems are down. All these processes have costs which have had to be met from district and Water For People resources.

The establishment of **an appropriate water tariff,** which will at least cover the operation and maintenance (O&M) costs of system operation remains a challenge. Due to Rulindo District's varied terrain and different water supply technologies implemented to respond to that terrain, those living at the top of mountains are paying much more for their water than those close to the source or supplied by gravity-fed schemes. This price differential means that those served by pumping systems (rather than gravity-fed systems) were often excluded from accessing water, simply because the price was too high.

Table 1. Service levels in Rulindo, Rwanda

Water service levels	2012	2015	2018
No or inadequate service	32	7	2
Poor service	40	44	37
Reasonable service	28	49	62
Public institution service levels	**2012**	**2015**	**2018**
No or inadequate service	35	10	0
Poor service	31	22	12
Reasonable service	24	68	88
Sanitation service levels	**2012**	**2015**	**2018**
No or inadequate service	17	10	3
Poor service	79	54	46
Reasonable service	4	36	51

Source: Water For People annual monitoring data, 2012-2018

To respond to this issue, in May 2015 the Rulindo District adopted a standard tariff of 20 RWF (US$0.02) per 20 litre jerrycan or 900 RWF (approximately US$1) per m3 for private connections. This standard tariff provided for an element of cross-subsidisation, and allowed more equitable access. However, the adoption of a national standard tariff based on technology of service in January 2017 reversed this situation and meant that the opportunity for cross-subsidisation was lost. (Global Water Intelligence, 2017) A rural tariff review is now underway, and hopefully will address all three issues of equity, affordability and adequate cost-recovery.

Integrated water resources management (IWRM). The programme partners are now mindful about water quality and quantity in the district. However, in the initial stages, the systems were planned based on identified resources rather than a comprehensive understanding of all available water resources and potential future uses. Subsequently in Rulindo, a Water Resources Management Plan was developed to build this comprehensive understanding and provide a basis for prioritising activities such as catchment protection. **Water quality monitoring** and implementation of Water Safety and Security Plans have also been necessary, together with the installation of chlorinators on all piped systems.

Monitoring and peer-learning. The practice of annual reflection on outcomes and understanding of service levels to strengthen different components of the "system" has been a cornerstone of developing an effective approach. All the challenges detailed in this paper were identified through those reviews, and action plans to mitigate them have been developed through meetings of all partners.

Political leadership. The leadership shown by senior district staff, and especially political leaders in Rulindo, has been vital to the success of the programme. Political leaders have galvanised support and resources for programme activities from the community and district staff and have advocated for the approach, communicating successes and challenges nationally. This support has also been critical to the wider success of the approach nationally.

Lessons from adopting the roadmap in Bugesera District, Rwanda

Immediately south of the capital city, Kigali, Bugesera is one of the seven districts of the Eastern Province of Rwanda. With a total surface area 1,334 km2 Bugesera has a population of 361,914 people. It is divided into 15 sectors, 72 cells and 581 villages. (NISR, 2012). It is a dry area of Rwanda with water supply mostly reliant on groundwater and treated surface water (mostly lakes) – with significant seasonal water supply scarcity. WaterAid began working in Bugesera district in 2010. At that time no regular WASH-specific plan was in place other than small sections (half page) of the wider District Development Plans. Since 2011 WaterAid, working with district staff and local partners, has implemented an integrated WASH programme including water and sanitation service delivery (in communities, schools and health centre facilities) and community hygiene promotion through government programmes and district capacity building. The activities focus on WASH planning and coordination with the aim of reaching everyone in the district.

Currently, Bugesera's water supply includes four piped systems with a distribution network – managed by WASAC and over 250 supply points such as handpumps or protected springs. Many of these were built with CapEx investment from development partners and managed by communities with support from local government.

Since 2016, in agreement with MININFRA following adoption of DWA, a systematic approach has been facilitated by WaterAid and partners to support development of the District WASH Investment Plan. To achieve the development of an informed plan, a number of key activities have been undertaken. These include a district-wide WASH service level baseline; a comprehensive water supply infrastructure asset assessment; a capacity needs assessment targeting district officials and private operators; determination of district priorities and, together with DWA partners, development of costing tools. The findings from the WASH service levels baseline revealed the following:

- **Water:** 23% of the population have access to at least basic service levels (as defined by the Joint Monitoring Programme for Water Supply, Sanitation and Hygiene [JMP] for SDG 6.1 monitoring), 47% of the population have access to a limited water service level (highlighting key gaps in equal service distribution causing long travel times for water collection for a large part of the population); while the remaining 30% of the district's population relies on unimproved or surface water supply (mostly from lakes, river, ponds). When looking at equity of water supply across different population groups – it is evident that households belonging to Ubedehe Category 1 & 2 have lower access levels to improved sources.

- **Sanitation:** 40% of households are reported using unimproved latrine with no slab. 4% are reported to have limited access due to sharing of latrines and 54% having basic access - with improved not shared slab latrines. 2% of households are reported still open defecating.

The initial phase of the costing assessment to inform District WASH Investment Plans included an assessment of required CapEx investment for new infrastructure and full replacement of existing non-functional/ abandoned assets. Service providers and authorities within Bugesera – particularly WASAC and local government agreed that to accurately inform the District WASH Investment Plan a detailed engineering design costing was required. WASAC took leadership of this work.

Challenges and lessons learned from Bugesera's adoption of DWA approach:

A number of challenges in pre-existing policy and management frameworks for water supply in Bugesera led to complexities in the implementation of the DWA roadmap – particularly for the costing phase. These include:

- **Mix of water supply technology and management models.** The district presents a variety of water supply solutions including handpumps; protected springs managed by the community with minor technical support from local government; and water supply systems with a distribution network managed by WASAC. These differences in models and technologies make costing assessment more complex.
- **Basic supply technical solutions not recognised by government.** Government and WASAC do not recognise basic water supply technical solutions such as handpumps as appropriate improved water supply – leading to confusion about their management responsibilities.
- **Unclear roles and responsibilities for management and maintenance of water supply.** Bugesera is one of the few rural districts in Rwanda where rural networks are directly managed by the national utility, WASAC, but with a remit limited to pipe systems. This creates issues around unclear roles and responsibilities for water supply management and budgeting between WASAC and local government – particularly for maintenance costs.

Some additional challenges and learnings from the implementation of the DWA approach to date in Bugesera include:

- **Indicators:** A review of the indicators used –WASH Access Service Levels Indicators– and data analysis was required to enable the presentation of the data in alignment with the SDG JMP globally adopted reference.
- **Water Resources Assessment as additional step:** To ensure correct costing assessment for new infrastructure in a district with water supply scarcity, such as Bugesera, further detailed studies and assessment of rural water resources are required. This stage should be included or recommended as a key additional step in the DWA proposed Roadmap for Rwanda.
- **Integration with existing processes:** Further integration of DWA implementation within existing national and local government processes and policies needs to be supported –such as existing planning cycles and taking into consideration policy changes occurring in parallel– such as WASH Boards development, and tariffs reviews. This is so that the DWA approach is perceived by local government as a process to support development of District WASH Investment Plans.

National level progress

In the last two to three years, there have been a number of changes which have provided important elements for sector strengthening. The work in Rulindo and Bugesera has been important for gaining experience and informing the piloting of the DWA approach in more districts. These changes include:

- Recognition of the DWA in the National Water Policy and Strategy and its planned adoption across all districts in the country, the DWA pilot (MININFRA, 2016);
- WASH Board establishment in each district is now enshrined in national WASH policy;
- Commitment to joint funding throughout programme/ project life cycle from the Local Government Development Agency (LODA);
- Consolidation of private sector engagement in the WASH sector, with larger and fewer private operators recognised by the national regulator, Rwanda Utility Regulatory Authority (RURA);
- National support to drive participation of other development partners and stakeholders in the DWA and creation of service environments, not just infrastructure;

- National WASH Management Information System is in the final stage of development, to serve as a framework and tool to capture service level data nationally, and to be accessed at local district and national levels;
- Asset Assessment and Full Life Cycle Costing tools developed;
- RURA is in the process of revising rural water tariffs.

Conclusion

While service level changes in Rulindo and Bugesera are considerable, they have taken a major coordinated effort, which will need to be maintained to sustain this progress. The challenge of applying the approach at a larger scale, across all districts, will bring new challenges. The following lessons learned are critical for scaling up WASH service provision in a sustainable manner:

- It has been critical to resource all the efforts to provide proof of concept. Without taking a comprehensive approach to both infrastructure and service environment, it is not possible to improve services sustainably.
- Building commitment amongst partners requires ongoing advocacy. The longevity of key players in Rulindo, for example, has been invaluable.
- Local government and service providers' capacities for data analysis, for example, needs to be strengthened so that they can perform some aspects of the DWA proposed approach. Water and sanitation business models are still fragile. Further professionalisation is required, as well as establishing a tariff that can adequately reward effective service delivery. There is a need to incentivise good performance in service provider contracts.
- "Full Life Cycle Costing" is a long-term permanent commitment. Enabling decision-makers to understand this and how it is different from a more traditional CapEx orientated view of WASH service delivery has taken a long time.
- Water tariffs currently only cover daily operations and minor repairs. In the long-run, this may not be the best way of securing financial sustainability of these services. A clear understanding of the full life-cycle costs is important for everyone to understand, so that informed decisions about how those costs can be met, between taxes and tariffs, can be made.

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