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ARTICLE



Understanding the political economy dynamics of the water, sanitation and hygiene (WaSH) sector in Rwanda

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ABSTRACT

Water, sanitation and hygiene (WaSH) services are examined from the Political Economy Analysis (PEA) perspective in Rwanda. Through a participatory qualitative approach, the findings show that water and sanitation services have been relatively low on the political agenda in Rwanda. There is a shortage of qualified employees at both local and national levels who should be responsible for the WaSH sector. Other major PEA issues include limited accurate, reliable and timely WaSH data to inform decision-making, sustainability of WaSH services and ineffective decentralisation. A range of strategic entry points are suggested in this paper to address these PEA issues.

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Introduction

Adequate safe water, sanitation, and proper hygiene practices reduce diarrhoeal disease and prevent deaths (Cairncross et al. 2010; Prüss-Ustün et al. 2014; Gentry-Shields and Bartram 2014). Two billion people lack access to at least basic sanitation services and 785 million people are estimated to lack access to at least basic drinking water services (UNICEF and WHO 2019). Diseases related to unsafe water, sanitation and hygiene (WaSH) products and services are major causes of mortality and morbidity (Prüss-Ustün et al. 2014; Barrington et al. 2016). Also, the lack of safe WaSH services affects children's nutrition and stunts growth, sometimes leading to cognitive impairments (Dangour et al. 2013; Spears et al. 2013; Barrington et al. 2016). These represent serious global health burdens in terms of the consequences associated with a lack of access to drinking water, inadequate sanitation, and poor hygiene.

Rwanda recorded significant improvements in access to drinking water and sanitation in recent years. There have been notable achievements in the

provision of basic infrastructure and household services. Households with access to an improved drinking-water source (excluding time and distance criteria) were estimated at 85% in 2017; approximately 84% of the households use basic sanitation services (if some criteria such as sanitation facilities not being shared between households are excluded) (GoR 2017; Tsinda et al. 2020).

However, access and coverage to water services for rural populations is still more limited. Only 47.3% of the rural population have an improved water supply within 500 metres of their home (NISR 2016). Water shortage due to insufficient water supply is a key challenge for most households.

In September 2015, the Sustainable Development Goals (SDGs) were adopted and required nations to ensure adequate water supply and sanitation for all. Unlike the Millennium Development Goals (MDGs), which only tracked household access, the SDGs target provision of 'universal access to basic drinking water, sanitation and hygiene' (WASH) for non-household settings, including schools, health facilities and public institutions (Cronk et al. 2017).

Furthermore, SDG 6 significantly raises the level of ambition and level of service required for the achievement of the SDGs. Rwanda's baseline for SDG 6.1 (water) and SDG 6.2 (sanitation) put 'basic' water supply service (44%) country-wide while access to the highest level of service – 'safely managed' water supply services – is at 13%. The access to 'basic' sanitation services country-wide is 62% while 57% for rural and 64% for urban (MININFRA 2018).

In December 2016, the Government of Rwanda through its National Water Supply and Sanitation policies and related implementation strategies (GoR 2016; MININFRA 2016) committed to achieving universal access to basic water and sanitation services. In 2017, the Government of Rwanda again committed itself to very ambitious targets of achieving 100% universal access to basic water, sanitation and hygiene services, in line with its National Strategy for Transformation (NST1 2017–2024) (GoR 2017).

Despite the above ambitions and significant progress made, some challenges remain. There is increasing recognition across the academic and aid literature that development is fundamentally a political process in key respects (Kitschelt and Wilkinson 2007; North et al. 2007; Plummer and Slaymaker 2007; Kooy et al. 2012; James 2019). The 2006 Development White Paper, *Making Governance Work for the Poor*, for example, argued that the fight against poverty can only be won with capable and accountable governance which is mainly contingent on getting the right kind of politics (McGranahan and Satterthwaite 2006; Spiller et al. 2008; Mason et al. 2015). In Rwanda, these challenges need to be identified in the broader context of politics and governance that can, at least in part, explain certain aspects of WaSH services which present barriers to and opportunities for pro-poor change.

PEA is primarily concerned with the interaction of political and economic processes in a society: the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time (Collinson 2003; DFID 2009; Harris and Booth 2013). It offers an analytical framework to characterise and understand the political and economic incentives for social actions and behaviours in a society. There is an increasing recognition that the governance and institutional arrangements of a sector and the incentives generated by such arrangements have a critical impact on how services are delivered (Kooy et al.

2012; Boex et al. 2020). The PEA framework provides the setting and structure for gauging the political, governance and institutional practices in the WaSH sector. For instance, how do water and sanitation issues define and shape the political agenda of the government? Where are the key bottlenecks in the system? What are the political economy factors and capacity issues hampering system performance? What are the drivers for improvement?

PEA as used here refers specifically to a variety of analytical approaches led or supported by international aid donors developed since 2000 (Leftwich 2007; Fritz et al. 2009a; Copestake and Williams 2014). So far, there are a variety of frameworks relevant to PEA. These frameworks roughly fall into three main groups: 1) *Macro-level frameworks* (understanding PEA processes at the country level and understanding the broad PEA context) (Labonté 2018; Gkiouleka et al. 2018) *Sector-level frameworks* (identifying particular challenges, interests and incentives operating in a specific sector, such as the WaSH sector (Harris et al. 2011; Scott 2014; Copestake and Williams 2014; Williams 2017; Lee and Usman 2018), p. 3) *Problem-driven analysis* (seeking to resolve specific problems at the project level or to a specific policy issue or process) (Landell-Mills et al. 2007; DFID 2009; Fritz et al. 2009b; Duncan and Williams 2012; Williams 2016; Abey Suriya et al. 2019).

However, a critical review shows that in practice, such frameworks overlap and key elements are included in most of the approaches:

- 1) **Structures** – factors such as historical processes, demographic trends and environmental issues;
- 2) **Institutions** – a strong emphasis on institutions, defined as both formal and informal 'rules of the game' (Ostrom 2005; Scott 2014), p. 3) **Agents and their incentives** – structures and institutions provide incentives for pro-developmental behaviour among key agents or groups in society (Duncan and Williams 2012; Chong et al. 2015, 2016a), p. 4) **Best 'fit' rather than best 'practice'** (Booth 2012)– this is similar to 'Grindle's idea of aiming for 'good enough governance'. Kelsall calls this 'going with the grain', working with – instead of trying to change – neopatrimonialism systems in Africa (Kelsall 2011) and Rwanda had been identified as a developmental neopatrimonial state (Booth and Golooba-Mutebi 2012).

It is against this background that this study uses the PEA framework to properly examine WaSH practices in Rwanda to: (i) better understand the dynamics

and power relations shaping policy processes and implementation practices; and, (ii) identify key political issues and processes and entry points for promoting change and improving WaSH services.

Methods and tools

We used consultative, participatory engagement techniques to collect and analyse qualitative data. Participatory engagement is a powerful approach used in change-oriented research to help instigate changes that endure beyond the end of the research project (Kindon et al. 2007). We used a qualitative approach which included a literature review, in-depth interviews and a workshop.

First, a literature review was carried out to inform the design of the research. A search for relevant documents was carried out and the documents were reviewed and analysed using the PEA framework.

Second, 14 in-depth interviews¹ with government officials, local officials and other key experts in the private sector, Non-Government Organisations (NGOs) and international agencies about their experiences and understanding of the factors shaping community demand for improving the WaSH sector, key bottlenecks in the system, any key reform champions within the sector, the role opinion leaders or champions play in raising the profile of WaSH sector and supporting increased sector investment (See Table 1). The purposive sampling of key informants took account of the range of stakeholders in the sector in Rwanda.

Third, engaging with key stakeholders was central to our approach. We shared preliminary findings from a desk review and interviews at a three-day participatory workshop attracting 12 key stakeholders comprising government officials, local officials and other key experts in the private sector, Non-Government Organisations (NGOs) and academia to get their feedback and discuss ideas for strengthening governance (Table 2). Discussions during the workshop were structured using the PEA framework. On Day One, participants engaged in an action learning process. On Day Two, participants identified key bottlenecks in the WaSH sector in Rwanda. On Day Three, participants came up with agreed recommendations on how these bottlenecks might be addressed using a modified deliberative forum consisting of group work, voting system and world café deliberations. The deliberative forum followed three steps:

Table 1. Key informant and individual interviews in Rwanda.

Types	Number of individual or group interviews	Institutions	N
National institutions	1	Ministry of Infrastructure (MININFRA)	2
	2	Ministry of Health (MoH)	1
	3	Water and Sanitation Corporation (WASAC)	2
	4	Rwanda Utilities Regulatory Agency (RURA)	1
	5	Rwanda Environment Management Authority (REMA)	1
Local institutions	6	City of Kigali	2
	7	District of Nyarugenge	1
University	8	District of Gasabo	2
	9	University of Rwanda, College of Science and Technology	1
Non-Government Organisations (NGOs)	10	SNV	1
	11	WaterAid	1
	12	Water for People	1
Private sector	13	Boundless Consultancy Group	1
	14	Rwanda Environment Care	1

First, based on the analysis of the presentation of the available evidence from the literature review and in-depth interviews, participants identified 16 cross-cutting issues that affect the WaSH sector. These 16 issues were clustered into nine groups: 1) sector processes (roles of Government, policy reform, sequencing, planning, etc.); 2) capacity (quality of implementations, education and training, experience and innovation, etc.); 3) sector performance monitoring (Data, monitoring & evaluation, etc.); 4) coordination (coordination in WaSH between sectors, structures and institutional framework; collaboration between NGOs and WaSH actors, vertical and horizontal co-ordination, etc.); 5) leadership, etc.; 6) learning (documentations, transparency, willingness to share, evidence, research and learning); 7) integration (fragmentation of WaSH sectors, policy translation into implementation, fragmented WaSH policies and bias towards water, integration or centrality of WaSH in development, etc.); 8) prioritisations (low prioritisation of WaSH sector and hygiene, financing, inequalities); 9) citizen voice (ownership, voice, empowerment, demand, mindset).

Table 2. Key stakeholders for a three-day workshop.

Types	Institutions	N
National institutions	Ministry of Infrastructure (MININFRA)	1
	Ministry of Health (MoH)	1
	Water and Sanitation Corporation (WASAC)	1
	Rwanda Environment Management Authority (REMA)	1
Local institutions	City of Kigali	1
	District of Nyarugenge	1
	District of Gasabo	1
University	University of Rwanda, College of Science and Technology	1
Non-Government Organisations (NGOs)	SNV	1
Private sector	WaterAid	1
	Boundless Consultancy Group	1
	Rwanda Environment Care	1
Total		12

Table 3. Key issues identified by participants in the workshop.

4 Top priority issues for Action	Other issues identified by participants
Capacity-16 votes	Citizen voice-7 votes
Integration-8 votes	Coordination-7 votes
Prioritisation/Finance-8 votes	Sector processes-5 votes
Sector Performance-8 votes	Learning-4 votes
	Leadership-3 votes

Second, the nine key issues initially identified were prioritised by participants through a voting system and only top four in voting were further analysed (See [Table 3](#)).

Third, in group work, participants were divided into three groups and requested to analyse and respond to questions provided using PEA frameworks. The framework divides discourses into three elements for analysis: 1) Country Context; 2) Sector Analysis; 3) Sector Process). Each group presented their conclusions and discussions focused on key PEA issues (what is the problem?), analysis of success factors and hindrances, identification of key drivers for change (e.g., which institutions, actions, transformation) and approaches for improving WaSH services.

Results

Rwanda WaSH political economy context analysis

Different key informants during interviews provided insights on WaSH political economy context in Rwanda. One respondent argued that more emphasis is placed on water being 'essential *'infrastructure'*

rather than on WaSH as an integrated package being central to development (**Interview 9**). There is also a clear bias towards water as an infrastructural solution, with sanitation development being a lower priority status and hygiene and related behaviour change often being completely marginalised (**Interviews 12, 14**). Rwanda has several public water supply and sanitation services policies and regulations as tools for solving water and sanitation services problems (See [Table 4](#)).

Beyond the policy and legal frameworks provided in the ([Table 4](#)), gender policy sets out key objectives for ensuring the economic empowerment of women: for employment in non-farm jobs and the results from empowering women such as economic growth, improved health of children, among others.

However, there is still a more complex and mixed story on gender equality as social norms and traditional perspectives on gender roles continue to shape and influence how women and girls are treated and positioned within society. Women and girls remain primarily responsible for domestic tasks, including the collection of water and other WaSH-related chores for the household (**Interview 2**). In recent years, menstrual hygiene management has become recognised as an issue affecting adolescent girls, which cuts across development sectors and has an impact on 'girls' school dropouts (**Interview 10**). There is no clear roadmap how targets in water and sanitation services will be achieved in relation to their linkages to policies on gender equality in different development sectors. A wider integrated policy framework is needed to impact decisions at the local level and mobilisation of necessary resources (**Interview 11**).

The national decentralisation process is in its third phase with the districts now the implementing arm for all government policies and programmes including water and sanitation (**Interview 2**). As part of upward accountability, the introduction of performance contracts – *'Imihigo'* in Kinyarwanda – has had a significant impact at the district level with Mayors being held accountable for targets (including water, sanitation and hygiene) within their areas.

There are also other formal spaces for citizen engagement in programmes and policies (e.g. *Umuganda*) but the extent to which citizens are empowered or facilitated to make full use of these spaces is still in question. Civil Society Organisations (CSOs) often play a role of advocacy but their engagement in budgetary planning processes is still limited

Table 4. Relevant water, sanitation and hygiene policies and statutes.

Policy or relevant statute	Key provisions
Vision 2050	Aims to ensure high standards of living for all Rwandans; improve quality of life, modern infrastructure by progressively achieving safely managed water and sanitation services for socio-economic development and to all Rwandans by 2050.
National Strategy for Transformation 1 (NST 1–2017-2024)/ WATSAN Strategic Plan targets 2018–2024	-Aims to increase the proportion of households accessing improved source of water from 84.8% (EICV 4) to 100% and the proportion with improved sanitation services/facilities from 83% (EICV 4) to 100%. -Ensures the proportion of the rural population living within 500 m of an improved water source from 47.% (EICV4) to 100%, and to raise the proportion of the urban population residing within 200 m of an improved water source from 61% (EICV4) to 100%. -WASAN sector also plans to increase the proportion of schools with latrines complying with health norms will reach a target of 100%.
Water Supply Policy and Implementation Strategy 2016	Aims to ensure sustainable, equitable, reliable and affordable access to safe drinking water for all Rwandans, as a contribution to improving public health and socio-economic development.
Sanitation Policy and Implementation Strategy 2016	Aims to ensure sustainable, equitable and affordable access to safe sanitation and waste management services for all Rwandans as a contribution to poverty reduction, public health, economic development and environmental protection.
National Policy on Environment and Climate change 2019	Aims a clean and healthy environment that is resilient to Climate Variability and Change and supports a high quality of life for its society. It also promote circular economy in key sectors such as sanitation. Two policy actions of policy statement 4 under policy objective 1 focus on <i>"Promoting private sector investment, especially the development of appropriate water and sanitation technologies and infrastructure for waste management as well as technologies for efficient and safe water use, especially in respect to safe wastewater use and recycling."</i>
Decentralisation policy 2012	Promotes transparency and accountability for local service delivery through citizen participation in planning.
Community Development Policy (2008)	Focuses on cooperation and harmonisation between formal and informal communities, the private sector, civil society, NGOs, central and decentralised government institutions; cooperation and coordination are also enhanced through the Joint Action Development Forum (JADF) at a local level.
Health Sector Policy	Focuses on improving the quality of and demand for services in the control of disease through hygiene promotion.
Environmental Health Policy	Covers a range of issues, including: a 'hygiene behaviour change 'approach' known as the 'Community Based Environmental Health Promotion Program (CBEHPP) to build on the community-based approaches tested under Participatory Hygiene and Sanitation Transformation (PHAST) and <i>Hygiene et Assainissement en Milieu Scolaire</i> (HAMS); Hygiene and Sanitation Presidential Initiative (HSPI) which promotes hygiene and sanitation in homes, schools, offices, restaurants, and other public places, and appropriate management medical waste, excreta waste, etc.
Urban Housing Policy	Recognises the need to ensure that people have access to potable water and adequate sanitation facilities and stresses the importance of upgrading informal settlements.
National Policy for Water Resources Management 2011	Recognises water as an economic good, opted for integrated and demand – driven-services.
National Water Supply Policy and Strategy (NWSPS) 2016	Attempted to address water and sanitation issues in clearly defined spatial units (urban areas, small towns and rural areas); placed high priority on the development of safe and adequate water supply and sanitation services as a key instrument for fighting poverty and accelerating socio-economic development.

(Continued)

Table 4. (Continued).

Policy or relevant statute	Key provisions
Constitution of 2003 as amended in 2015	Gives citizens a right to a clean environment. Article 22 on <i>Right to a clean environment</i> : Everyone has the right to live in a clean and healthy environment; article 53 on <i>Protection of the environment</i> : Everyone has a duty to protect, safeguard and promote the environment. It also indicates that the Government is responsible for protection of the environment. Lastly, it stipulates that law will determine modalities for protecting, conserving and promoting the environment.
Law N°62/2008	Lays out the general framework for the principles of integrated water resources management, including the prevention of pollution, and the principle of 'user pays and 'polluter pays' as well as the principle of 'users' associations for the administrative management of water.
Law N°10/2012 governing urban planning and building in Rwanda	Seeks to protect the physical environment and improve water drainage across roads
Organic law n° 04/2005 of 08/04/2005 determining the modalities of protection, conservation, and promotion of environment	Gives right to every natural or legal person in Rwanda to live in a healthy and balanced environment and captures a wide range of environmental protection, coordination and enforcement functions

to ensuring community needs are met (**Interview 9**). Water supply, sanitation provisions and hygiene fall within the responsibility of several institutions. The division of stakeholders' responsibilities regarding WaSH services is summarised in (Table 5).

However, although an official institutional framework for WaSH services exists, there is a lack of clarity over the responsibilities of different actors and a lack of appropriate managerial, scientific and technical capacity to fulfil their roles (**Interview 4**). Furthermore, roles are often mixed up and there is no clear separation between regulatory, monitoring and executive duties between institutions (**Interview 5**). For example, in relation to financing arrangements for the sector, national policy is ambiguous about when exactly municipalities or central Government can or should contribute to financing the costs of renewal or replacement of rural water infrastructure (**Interview 14**), a key factor in effective service delivery.

Key political economy issues in the WaSH sector and entry points for promoting change

In Rwanda, there are a number of political economy contentious issues in the WaSH sector, and six key PEA issues were identified during the workshop. These were: (i) capabilities and skills; (ii) integration; (iii) prioritisation and finance; (iv) limited reliable data to inform decision-making; (v) decentralisation; (vi) sustainability and mitigating risks. The six PEA issues are interlinked and, taken together, reflect the complexity of the

problem. Each of the issues is discussed below in an attempt to identify entry points for promoting change.

Capabilities and skills

In the workshop, capabilities and skills were among the most frequently quoted WaSH priority actions. Lack of capabilities and skills was identified as a major bottleneck hindering improvements in WaSH services. For example, districts do not have insufficient staff to inspect sanitation facilities nor do the staff have the required skills to implement WaSH activities. This situation is exacerbated by a high turnover of staff.

...The overall improvement of the workplace tends to decrease with high turnover... Since a new employee has a period of adjustment, he won't complete tasks as quickly as the person he 'replaces'. (Official of SNV in workshop)

Another participant observed that lack of capacity went beyond human capacity and included financial and material resources.

'...There is a need to ensure that the personnel are working within a functional system, with the financial and material resources to carry out their role effectively. (Official of Nyarugenge district in workshop)

For most participants, having sufficient, qualified, technical staff and other resources is essential for improving WaSH services. The participants also suggested that for sustainable WaSH improvement, the Government of Rwanda should continue investing in behaviour changes in hygiene practices in schools.

Table 5. Major WASH sector 'stakeholders' matrix.

Key institutions in sanitation	Key responsibilities/Mandates	Power and influence
Ministry of Infrastructure (MININFRA)	Responsible for the development of policies and regulations regarding sanitation, water supply, infrastructure, urbanisation and settlements; it supports and supervises districts in the construction of water supply systems, latrines and hygiene promotion; it also prepares, monitors and regulates water quality and hygiene standards.	***
Ministry of Health (MoH)	Responsible for the control and monitoring of activities related to hospitals, health services; promoting sanitation, healthy standards and regulations for water and sanitation; funding construction of latrines within the hospital, overseeing the implementation of Environmental health related programmes that mitigate water borne diseases, promoting hygiene among the population; develops policies, strategies and guidelines for sanitation and hygiene as well as medical waste disposal and treatment, takes the lead in household sanitation and hygiene promotion.	***
Ministry of Environment (MoE)	Responsible for various policies including environment and climate change, water resource management as well as land.	**
Ministry of Local Government (MINALOC)	Responsible for good governance in all local administration levels including environment governance at local level and various community management programmes: <i>Umuganda</i> , <i>Ubudehe</i> , and <i>Imihigo</i> and coordinating implementation of various government programmes (including water and sanitation at the local level.	***
Ministry of Education (MINEDUC)	Responsible for school sanitation programmes including both implementation in schools and consideration in curricula as well as funding the construction of school latrines, and overseeing the implementation of environmental education programmes in schools (by supporting Environmental Clubs), as well as initiating the process of mainstreaming environment into schools.	**
Ministry of Finance and Economic Planning (MINECOFIN)	Responsible for mobilising funds; coordinating the National Budgeting and coordination of development partners and allocation of budgets to different Ministries and sectors; overseeing and advising on the formation of various funds.	***
Ministry of Gender and Family Promotion (MIGEPROF)	Responsible for ensuring strategic coordination of policy implementation around gender, family, women's empowerment, and children's issues. It plays a leading role in the implementation of gender agenda in different sectors, including water, sanitation, hygiene, etc.	**
Water and Sanitation Corporation (WASAC)	Responsible for urban sewerage systems and sludge emptying services, coordination of programmes related to sanitation infrastructure, and funding of the construction of sanitation, water facilities and waste management.	***
Rwanda Environment Management Authority (REMA)	Responsible for setting up environment standards and regulations; monitoring, inspecting, and ensuring compliance with environmental awareness; enforcing environmental regulations and raising awareness about domestic and industrial solid waste management.	***
Rwanda Utilities Regulatory Agency (RURA)	Responsible for ensuring those basic services including Water and Sanitation provision are made according to the required standards and that regulations ensure for fair completion in the provision of these public services (i.e. water and sanitation).	***
Rwanda Standards Board (RSB)	Responsible for the inspection of sanitation systems in hotels and other businesses in collaboration with the Ministry of Health and the City of Kigali.	***
Rwanda Housing Authority (RHA)	Responsible for implementing policies, developing housing and urban planning strategies and programs; supporting urban infrastructure development programs under the decentralised structures; upgrading and resettling informal settlements.	**
Kigali City Council, Districts, sectors, cells	Responsible for the Execution and implementation of the state regulations on environmental protection at local (city) level; participate in inspection of sanitation systems, hygiene for hotels and in policy making process, land and environmental management, urban planning, sanitation plants maintenance; providing drinking water, sanitation, and waste treatment and disposal, mobilise funds (e.g. tax collection as stipulated by law and decentralisation policy), preparing budgets and projects including those related to environment and sanitation, implementing government policies and specific projects and participate in the policymaking process.	***
WASH-related research and education institutions	University of Rwanda through six colleges, Rwanda Polytechnic through various vocational training colleges (eight Integrated Polytechnic Regional Centers, IPRCs), various private universities.	**
NGOs	Responsible for the provision of Water and Sanitation facilities (especially to the poor), provision of technical support, sensitisation on hygiene, advocacy and advice in policy making. Key NGOs include: Water for People, Water Aid, PROTOS, MLFM, AVSI, CICR, and the World Vision.	**

(Continued)

Table 5. (Continued).

Key institutions in sanitation	Key responsibilities/Mandates	Power and influence
Private sector	Include engineers' associations, private sector operators in WASH sector, etc.	**
Funders	Include the World Bank, African Development Bank, WHO/UNICEF, UNDP, Government of Japan through JICA, Government of Netherlands through SNV, European Union, UN- Habitat, BADEA, OFID, OPEC, USAID	**

Power and influence: ***: Very High; **: High; *: Low

This means that strengthening and empowering the existing school WaSH clubs is equally important.

Village meeting forums such as *Umugoroba w'Ababyeyi*² (Parents' forum) were also identified as a way to empower people, by enabling knowledge sharing on good sanitation and hygiene practices:

...I thought Umugoroba w'Ababyeyi could help households to increase their knowledge on sanitation and hygienic best practices as households share experiences and testimonies and learn from each other on how they went about settling issues in the 'family'. (Official of the City of Kigali in workshop)

Furthermore, the participants thought that guidelines should be distributed to households on how to improve hygiene:

Such guidelines should be brought to the attention of the local community using the local media and by leaflet distribution or toolkit via the Community Health Workers, schools, etc. All manuals should be illustrative and provided in Kinyarwanda. (Official of the Ministry of Health in workshop).

Some participants also recommended setting up demonstration sites so that people can see a range of products certified by the authority in charge of standards (such as pit digging services, superstructure building, use and maintenance of latrines) that are available:

I thought the establishment of the sanitation site models within communities will promote the improvements of the existing latrines and the construction of new ones, and will inform and demonstrate the technology to the 'public'. (Official of WASAC in workshop)

However, as the participants in the workshop recognised, a more comprehensive framework considers capacity development on three levels: developing a supportive enabling environment consistent with achieving WaSH goals; building the capacity of institutions to ensure that systems and procedures are in place, and building the skills and capabilities of employees to improve their job performance.

This is considered as important because if districts are to be able to act as service providers and support community in improving WaSH and other services at the community level, they require support and assistance from central government water ministries, the private sector, training or academic institutions and NGOs.

Integration

Fragmentation of the WaSH sector was seen by participants in the workshop as an important issue. Participants thought that fragmentation produces a confusing and often contradictory landscape in which practitioners attempt to function:

...Actually, there is no WaSH sector in Rwanda because WASH responsibilities are spread across many ministries and consequently, there is bound to be duplication of functions and conflict of authority. The processes that influence resource expenditure for the provision of safe drinking water and sanitation spending (MININFRA) is entirely separate from those that determine allocation of hygiene spending (Ministry of Health) ... (Professor of University of Rwanda, College of Science and Technology in workshop)

While agreeing with this observation, another participant went further and argued that the bottom line when it comes to policy is the lack of coordination and collaboration both within and between governments, NGOs and the public. It was widely agreed in the workshop that policies should be holistic and provide for inter-ministerial and trans-boundary mechanisms that address WaSH as a sector, as a determinant of health, a catalyst for economic growth and as a prerequisite for safe health care delivery.

Furthermore, the workshop participants provided examples of how national forums or platforms can contribute to strengthening accountability and transparency. Participants recommended that WaSH forums at central and local levels should be set up to make needs known to the Government and other

providers of WaSH services. Similarly, the active participation and involvement of all stakeholders – from the grassroots up to the higher levels – in improving WaSH is vital (Abbott et al. 2015).

Prioritisation

PEA is, among other things, aware of how political ideology may influence public policy and policy priorities. One key aspect raised in the workshop is the extent to which WaSH services are prioritised as an important ‘political’ issue. According to a majority of participants in the workshop, WaSH services do not seem to figure prominently in political discourses although the president is a strong advocate of WaSH. The speeches of government officials have focused on education, health, infrastructure, energy development and land, rather than the provision of safe drinking water and sanitation.³ This does not mean, necessarily, that water and sanitation are not important issues for ordinary Rwandans.

Although participants in the workshop agreed that water and sanitation were low priorities for Government, sanitation and hygiene were also said to be a low priority compared to water. One participant noted that water supply gets the lion’s share of resources; sanitation is under-resourced and its administration divided between several ministries each claiming to have specific components relating to it (Table 5). Some participants noted that politicians need to be informed and held accountable for the challenges in WaSH. Where political will is weak or absent, strategic advocacy efforts are necessary to ensure that the issue of sanitation and hygiene is placed high on the political agenda.

According to some participants in the workshop, this can be done by (i) raising the profile of sanitation and hygiene issues by showing how they link to SDG 6 targets; (ii) creating pressure groups at national and local levels; (iii) involving the media in bringing the issue to the attention of the public; (iv) holding national and local forums and learning sessions for developing advocacy/lobbying skills.

Limited reliable evidence data to inform decision-making

There was an agreement among workshop participants that reliable evidence, data or analysis to inform decision-making is limited making it difficult to track progress. One participant noted:

...It is difficult to plan and make decisions about where investments in WaSH should go due to the lack of reliable and accessible information. (Official of Boundless Consultancy Group in workshop).

This quote is important because data relating to WaSH services in Rwanda remain an issue. Recently, the Management Information System (MIS) was initiated by MININFRA as a monitoring and evaluation tool towards improving performance in WaSH. The WaSH MIS is web-based software that supports management of WaSH data from all districts including data collection, entry, validation, analysis structuring, storage and summary display through dashboards (MININFRA 2019), but it is not yet fully effective and operational. The lack of data makes investment allocations difficult and coordination of activities complicated.

Furthermore, as noted by the participants, there is no clear evidence that evaluations of the various policy documents and implementation plans that have been developed over the years took place and whether new plans or policies are based on the lessons learnt towards effective provision of WaSH services. Reasons for failures to achieve the set targets are also not holistically documented to inform decision-making.

Decentralisation

The workshop participants mentioned that given the PEA context, certain political constraints and incentives limit the nature and scope of fiscal, administrative and political decentralisation in the sector. Potential entry points, as raised by the participants, include the following:

Mitigating the potential risks of decentralisation by ensuring real powers and real resources are handed over to local administrations (mainly districts). The Vice-Mayor in charge of economic development is responsible for water supply while the Vice-Mayor in charge of social affairs is responsible for ensuring that the problems, priorities and needs of the people are taken into account in service delivery. So far, the two mayors work in silos with limited integration and to be more effective the two vice-mayors (economic development and social affairs) at district level need to work together to ensure seamless integration and implementation.

Addressing the issues of two vice-mayors working in silos is important because decentralisation processes are embedded in the broader political context

of Rwanda. Multi-stakeholder dialogues may be useful to review the bottlenecks in decentralising WaSH services as pointed out by the participants in the workshops. Clarity on complementary roles between stakeholders and the resource requirements for each could also be assessed in the proposed dialogues.

Sustainability and mitigation risks

The problem of the sustainability of water and sanitation services is still a critical PEA issue. The majority of participants in the workshop noted that the issue of sustainability includes the inadequacy of financial revenues to cover the full operation and maintenance and capital investment costs of infrastructure. At local levels, these are operation and minor maintenance expenditure, capital maintenance expenditure, and the costs of ongoing support to service providers.

However, a minority of participants observed that the issue of sustainability and financing of water supply and sanitation services should be analysed within their wider political contexts, with particular attention being paid to understanding the role of external organisations such as NGOs in influencing institutional change. For rural water services to be sustainable, the participants suggested that the full costs of providing the services must be matched to adequate sources of financing.

Discussion and conclusion

The purpose of this article was to use PEA framework to examine WaSH practices in Rwanda through better understanding of the dynamics and power relations shaping policy processes and implementation practices, identifying the key political issues and processes and entry points for promoting change.

It is clear from the above findings that in Rwanda there is an acute shortage of qualified and trained workers, especially in the lower tiers of government. There is also a lack of integration of policies and duplication of responsibilities, and limited reliable, accurate and timely WaSH data to inform decision-making and the sustainability of WaSH services. At the sector level, political blockages and drivers include the fact that WaSH has featured relatively low on the political agenda – compared to health and education. There is a lack of prioritisation of the WaSH sector and limited funding.

Complex fiscal, administrative and political decentralisation processes have taken place, but political reforms have limited effectiveness in practice.

Districts have not gained the powers and resources required to carry out their mandate. Fiscal decentralisation would be one way of enabling local governments to increase the resources available to them through taxes and tariffs for providing public services (Arends 2017; Köppl; Turyna et al. 2016; Vybíhal 2018). These opportunities may include new sources of local tax revenue, improving the collection of existing taxes and user fees or reducing the costs of service delivery and so creating surpluses.⁴

Measures are also needed to increase the pressures and incentives on local government for accountability to citizens and users. This will only be possible if there is a dialogue and agreement between leaders and citizens through the existing frameworks (village council, cell council, community health workers, etc.). It is widely accepted by scholars that decentralisation was a key driver for the implementation of the Community-Based Environmental Health Promotion Programme (CBEHPP) (Nkurunziza, UM, and Dlamini 2013; Tsinda 2011; Ntakirutimana and Rubuga 2017). CBEHPP has been instrumental in changing hygiene behaviour, reaching all communities and empowering them to identify their personal and domestic hygiene and environmental health-related problems (including access to safe drinking water and improved sanitation) and solving them.

The Government of Rwanda has a decentralisation policy and this has the potential to better serve the interests of ordinary citizens. However, decentralisation has been partial and incomplete with an acute shortage of qualified and trained personnel, particularly at lower tiers of government. There are still significant technical capabilities' gaps everywhere, which act as a brake on Rwanda's economic, social and political development (Booth et al. 2014). As has been found in other studies – for example, in Burkina Faso, Mali and Mozambique – decentralisation can result in reduced service delivery in the absence of increased resources at the local level (Resnick 2014; Dickovick et al. 2014).

While decentralising service delivery can improve it by making it more responsive to the needs of citizens, this has not yet happened in Rwanda. This is partly because of limited engagement of citizens in advocacy combined with a shortage of skilled workers and limited funding (GOR 2015). To be effective, real powers and resources need to devolve to local administrations and the consequence of not doing so is to limit their ability to operate and their political

legitimacy. However, the effective delivery of services also depends on the coordination of all functions, with each institution having a clear understanding of what is to be done, the means to do it, accountability for doing it, and an agreed mechanism to ensure effective coordination of necessary activities (Schrecongost et al. 2020).

In Rwanda, many institutions are still involved in WaSH issues. Identifying leadership will help to ensure that policies are developed and programmes implemented. As demonstrated in Kenya, in 2010, the Ministry of Health established an Inter-Agency Coordination Committee (IACC) for Sanitation and Hygiene bringing together different ministries – including those for Water Resources, Education, and Science and Technology – along with development partners. This fostered dialogue and ensured coordination between ministries. Effective inter-ministerial and cross-sectoral collaboration, particularly between MININFRA and MoH and between WASAC and districts at the local level is required in Rwanda.

To be more effective, MININFRA, MoH, WASAC and districts should consider working with and through ‘parents’ forums’ (*Umugoroba w’ababyeyi*), community works (*Umuganda*), village council commissions, district council commissions (social, economic, political), and Community-Based Organisations (CBOs) such as elders, national women council at the village level, national youth women council at the village level, Community Health Workers (CHWs), associations (people with disability, etc.) and cooperatives. The dialogue using these forums and groups could help counteract the risks of politically expedient cost-cutting bottlenecks.

A further set of possible entry points for driving change as provided by scholars (Cotula 2012; Harris and Wild 2013; Allouche et al. 2015) include the political commitments, the strength of oversight systems, coherence (between policies and processes for implementation), and capacities for local problem-solving and collective action and identification of the right agents of change. In Rwanda, given the PE context, the most powerful agent of change is the Government. The Joint Sector Reviews and Technical Working Groups at a national level including Ministry of Infrastructure (MININFRA), Ministry of Health (MoH), Water Sanitation Corporation (WASAC) and Ministry of Local Government (MINALOC) and the Joint Action Development Forum (JADF) at a district level are a good entry point for change.

This was evidenced in other countries such as Malaysia and Indonesia where the centrally controlled but locally undertaken planning model was designed to produce local ownership of sanitation challenges and improvements, through giving special attention to city-level planning, strengthening sector strategy and institutional arrangements, and advocacy and awareness-raising at all levels (Ostrom 2011; Abey Suriya et al. 2019).

In a PEA context, operational solutions are not always clear-cut, but they need to be more effective, politically feasible and sustainable in the long term. However, Rwanda still lacks adequate frameworks for financial planning to ensure that all the long-run costs of rural water services are included. Therefore, the following are the four suggestions to promote sustainability in water and sanitation:

- (1) There must be real demand from users which is evidenced by the consistent use of improved water and sanitation services and the practice of good hygiene behaviours.
- (2) There must be a functioning management and maintenance system comprising tools, supply chains, transport, equipment, training and individuals/institutions with clear responsibilities.
- (3) When systems are managed by communities or institutions, there must be effective external support to those community-level structures and institutions.
- (4) Households and communities are kept informed of the likely life cycle costs (operation, maintenance and eventual rehabilitation) of their services, and affordable tariff structures or other arrangements are put in place to generate the necessary revenues, in a manner which takes full account of those lacking the ability to pay (for example, the elderly, widowed, disabled or otherwise disadvantaged).

The findings also reveal that WaSH improvement needs prioritisation of WaSH services. However, changing the political agenda is a long and complex process,⁵ although some entry points are worth considering.

First, raising awareness among opinion leaders and in schools on water supply issues through mainstreaming WaSH issues into school curricula and communication programmes. Awareness-raising and education among opinion leaders such as the National Women’s Council, the National Youth

Council and Community Health Workers would enable them to raise citizens' awareness. An evidence-based dialogue with Government about the strengths and weaknesses of water supply, hygiene and sanitation policy and services through existing forums such as parents' forums *Umugoroba w'ababyeyi*, community juries (*Inteko z' abaturage*) could lead to an improvement in services.

Second, strengthening the capacity of citizens and opinion leaders to pressure politicians to place water, sanitation and hygiene higher up the agenda – communications (during community works or *Umuganda*) on 'rights to water and sanitation' may have the potential to slowly transform political obligations on water and sanitation issues.

These findings have implications for other low-income countries where efforts are underway to improve WaSH services. We hope our findings will enable practitioners to develop interventions which are more effective and politically feasible.

Notes

1. Often conducted individually or in a group of two officials working in the same organisation.
2. *Umugoroba w'ababyeyi* is an initiative that began in 2010 and involved parents in local community to regularly meet during the evening to discuss challenges in their households and devise solutions. It started as a women's platform but given the importance of this forum, it has been decided to make it a parents' forum for both men and women.
3. One of the reasons for the low priority of water and sanitation is that Rwanda is comparatively good, especially on sanitation compared to other low-income and many low-middle-income countries.
4. However, there are some scholars who argue that it is difficult for local governments to raise local taxes or tariffs because their citizens are poor and central government often wants to retain fiscal control over both the levels set and how they are collected.
5. Because it depends on citizens' awareness of and interests in the performance of the sector.

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