



Understanding the political economy dynamics of the Water, Sanitation and Hygiene (WaSH) sector in Rwanda

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Understanding the political economy dynamics of the Water, Sanitation and Hygiene (WaSH) sector in Rwanda

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 the paper to address these PEA issues.

Keywords: water; sanitation; hygiene; political economy analysis; Rwanda

Subject classification codes: include these here if the journal requires them

Introduction

Adequate safe water, sanitation, and proper hygiene practices reduce diarrheal 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, Ghosh, and Cumming 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 improvement in access to drinking water and sanitation in recent years. There have been notable achievements in the provision of basic infrastructure and household services. The households with access to an improved drinking-water source (excluding time and distance criteria) were estimated at 85% in 2017; approximately 84% of households use basic sanitation services (if some criteria such as sanitation facilities not being shared between households are excluded) (GoR 2017; Tsinda, Chenoweth, and Abbott 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 shortages 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 Millenium 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, Slaymaker, and Bartram 2017).

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 by 2024 and to implement the new global agenda of the Sustainable Development Goals (SDGs), especially Goal 6 which ensures sustainable access to water and sanitation for all by 2030. 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).~~

~~While the progress towards the MDG target of ‘improved’ water and sanitation services was nearly achieved, Furthermore,~~ -SDG 6 significantly raises the level of ambition and level of service required for 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. ~~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. This is important because~~ 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, Harris, and Lindsey 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

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3 and accountable governance which is mainly contingent on getting the right kind of
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5 politics (McGranahan and Satterthwaite 2006; Spiller et al. 2008; Mason, Ross, and
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7 Mitchell 2015). In Rwanda, these challenges need to be identified in the broader context
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9 of politics and governance that can, at least in part, explain certain aspects of WaSH
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11 services which present barriers to and opportunities for pro-poor change.

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14 PEA is primarily concerned with the interaction of political and economic
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16 processes in a society: the distribution of power and wealth between different groups
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18 and individuals, and the processes that create, sustain and transform these relationships
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20 over time (Collinson 2003; DFID 2009; Harris and Booth 2013). It offers an analytical
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22 framework to characterise and understand the political and economic incentives for
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24 social actions and behaviors in a society. There is an increasing recognition that the
25
26 governance and institutional arrangements of a sector and the incentives generated by
27
28 such arrangements have a critical impact on how services are delivered (Kooy, Harris,
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30 and Lindsey 2012; Boex et al. 2020). The PEA framework provides the setting and
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32 structure for gauging the political, governance and institutional practices in the WaSH
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34 sector. For instance, how do water and sanitation issues define and shape the political
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36 agenda of the government? Where are the key bottlenecks in the system? What are the
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38 political economy factors and capacity issues hampering the system performance??
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40 What are the drivers for improvement?

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43 This notion of capable and accountable governance represents a significant step
44
45 in the development of Political Economy Analysis (PEA) although there is still a gap in
46
47 knowledge of PEA of the WaSH sector in Rwanda. PEA as used here refers specifically
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49 to a variety of analytical approaches led or supported by international aid donors
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51 developed since 2000 (Fritz, Kaiser, and Levy 2009a; Leftwich 2007; Copestake and
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53 Williams 2014). So far, there are a variety of ~~PE~~ frameworks relevant to PEA. These
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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); 2) *Sector-level frameworks* (identifying particular challenges, interests and incentives operating in a specific sector, such as the WaSH sector (Harris, Jones, and Kooy 2011; Scott 2014; Williams 2017; Copestake and Williams 2014; Lee and Usman 2018); 3) *Problem driven analysis* (seeking to resolve specific problems at the project level or to a specific policy issue or process) (DFID 2009; Fritz, Kaiser, and Levy 2009b; Landell-Mills, Williams, and Duncan 2007; Duncan and Williams 2012; Abeysuriya et al. 2019; Williams 2016).

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' (Scott 2014; Ostrom 2005);

3) **Agents and their incentives** - structures and institutions provide incentives for pro-developmental behavior among key agents or groups in society (Duncan and Williams 2012; Chong et al. 2015; Chong et al. 2016a);

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).

~~In addition, PEA is primarily concerned with the interaction of political and economic processes in a society: the distribution of power and wealth between different~~

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3 groups and individuals, and the processes that create, sustain and transform these
4 relationships over time (Collinson 2003; DFID 2009; Harris and Booth 2013). It offers
5 an analytical framework to characterise and understand the political and economic
6 incentives for social actions and behaviors in a society. There is an increasing
7 recognition that the governance and institutional arrangements of a sector and the
8 incentives generated by such arrangements have a critical impact on how services are
9 delivered (Kooy, Harris, and Lindsey 2012; Boex et al. 2020). The PEA framework
10 provides the setting and structure for gauging the political, governance and institutional
11 practices in the WaSH sector. For instance, how do water and sanitation issues define
12 and shape the political agenda of the government? Where are the key bottlenecks in the
13 system? What are the political economy factors and capacity issues hampering the
14 system performance? What are the drivers for improvement?

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31 It is against this background that this study uses the PEA framework to properly
32 examine WaSH practices in Rwanda to: (i) better understand the dynamics and power
33 relations shaping policy processes and implementation practices; and, (ii) identify key
34 political issues and processes and entry points for promoting change and improving
35 WaSH services.

36 37 38 39 40 41 42 43 44 **Methods and tools**

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46 We used consultative, participatory engagement techniques to collect and analyse
47 qualitative data. Participatory engagement is a powerful approach used in change-
48 oriented research to help instigate changes that endure beyond the end of the research
49 project (Kindon, Pain, and Kesby 2007; Chong et al. 2016b). We used a qualitative
50 approach which included a literature review, in-depth interviews and a workshop.
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3 First, a literature review was carried out to inform the design of the research. A
4 search for relevant documents was carried out and the documents were reviewed and
5 analysed using the PEA framework.
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10 Second, 14 in-depth interviews ¹with government officials, local officials and
11 other key experts in the private sector, Non-Government Organisations (NGOs) and
12 international agencies about their experiences and understanding of the factors shaping
13 community demand for improving the WaSH sector, key bottlenecks in the system, any
14 key reform champions within the sector, the role opinion leaders or champions play in
15 raising the profile of WaSH sector and supporting increased sector investment (See
16 **Table 1**). The purposive sampling of key informants took account of the range of
17 stakeholders in the sector in Rwanda.
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22 Third, engaging with key stakeholders was central to our approach. We shared
23 preliminary findings from a desk review and interviews at a three-day participatory
24 workshop attracting 12 key stakeholders comprising of government officials, local
25 officials and other key experts in the private sector, Non-Government Organisations (NGOs) and academia to get their feedback and discuss ideas for strengthening
26 governance (**Table 2**). Discussions during the workshop were structured using the PEA
27 framework. On Day One, participants engaged in an action learning process. On Day
28 Two, participants identified key bottlenecks in the WaSH sector in Rwanda. On Day
29 Three, participants came up with agreed recommendations on how these bottlenecks
30 might be addressed using a modified deliberative forum consisting of group work,
31 voting system and world café deliberations. The deliberative forum followed three
32 steps:
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¹ Often conducted individually or in a group of two officials working in the same organisation.

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3 First, based on the analysis of the presentation of the available evidence from the
4 literature review and in-depth interviews, participants identified 16 ~~PE~~-cross-cutting
5 issues that affect the WaSH sector. These 16 ~~PE~~-issues were clustered into nine groups:
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7 1) sector processes (roles of Government, policy reform, sequencing, planning, etc.); 2)
8 capacity (quality of implementations, education and training, experience and
9 innovation, etc.); 3) sector performance monitoring (Data, monitoring & evaluation, etc.
10); 4) coordination (coordination in WaSH between sectors, structures and institutional
11 framework; collaboration between NGOs and WaSH actors, vertical and horizontal co-
12 ordination, etc.); 5) leadership etc.); 6) learning (documentations, transparency,
13 willingness to share, evidence, research and learning); 7) integration (fragmentation of
14 WaSH sectors, policy translation into implementation, fragmented WaSH policies and
15 bias towards water, integration or centrality of WaSH in development, etc.); 8)
16 prioritizations (low prioritisation of WaSH sector and hygiene, financing,
17 inequalities);9) citizen voice (ownership, voice, empowerment, demand, mind-set).
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35 Second, the nine key issues initially identified were prioritised by participants
36 through a voting system and only the top 4 in voting were further analysed (See **Table**
37 **3**).
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42 Third, in group work, participants were divided into three groups and requested
43 to analyse and respond to questions provided using PEA frameworks. The framework
44 divides discourses into three elements for analysis: 1) Country Context; 2) Sector
45 Analysis; 3) Sector Process). Each group presented their conclusions and discussions
46 focused on key PEA issues (what is the problem?), analysis of success factors and
47 hindrances, identification of key drivers for change (e.g., which institutions, actions,
48 transformation) and approaches for improving WaSH services.
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Results

Rwanda WaSH Political Economy Context Analysis

Rwanda recorded significant improvement in access to drinking water and sanitation in recent years. There have been notable achievements in the provision of basic infrastructure and household services. The households with access to an improved drinking water source (excluding time and distance criteria) were estimated at 85% in 2017; approximately 84% of households use basic sanitation services (if some criteria such as sanitation facilities not being shared between households are excluded) (GoR 2017; Tsinda, Chenoweth, and Abbott 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 shortages due to insufficient water supply is a key challenge for most households.

Poor access to safe water presents major challenges for vulnerable individuals like physically disabled people, women, children, and the elderly, who may have to continue to drink water from the unsafe sources.

Different key informants during interviews provided insights on WaSH political economy context in Rwanda. One respondent argued that Furthermore, 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**).

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3 Beyond the policy and legal frameworks provided in the **Table 4**, gender policy
4 sets out key objectives for ensuring the economic empowerment of women: for
5 employment in non-farm jobs and the results from empowering women such as
6 economic growth, improved health of children, among others.
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12 However, there is still a more complex and mixed story on gender equality as
13 social norms and traditional perspectives on gender roles continue to shape and
14 influence how women and girls are treated and positioned within society. Women and
15 girls remain primarily responsible for domestic tasks, including the collection of water
16 and other WaSH related chores for the household (**Interview 2**). In recent years,
17 menstrual hygiene management has become recognised as an issue affecting adolescent
18 girls, which cuts across development sectors and has an impact on 'girls' school
19 dropouts (**Interview 10**). There is no clear roadmap how targets in water and sanitation
20 services will be achieved in relation to their linkages to policies on gender equality in
21 different development sectors. A wider integrated policy framework is needed to impact
22 decisions at the local level and mobilisation of necessary resources (**Interview 11**).
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38 The national decentralisation process is in its third phase with the districts now
39 the implementing arm for all government policies and programmes including water and
40 sanitation (**Interview 2**). As part of upward accountability, the introduction of
41 performance contracts – '*Imihigo*' in Kinyarwanda – has had a significant impact at the
42 district level with Mayors being held accountable for targets (including water, sanitation
43 and hygiene) within their areas.
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51 There are also other formal spaces for citizen engagement in programmes and
52 policies (e.g. *Umuganda*) but the extent to which citizens are empowered or facilitated
53 to make full use of these spaces is still in question. Civil Society Organisations (CSOs)
54 often play a role of advocacy but their engagement in budgetary planning processes is
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3 still limited to ensuring community needs are met (**Interview 9**). Water supply,
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5 sanitation provisions and hygiene fall within the responsibility of several institutions.
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7 The division of stakeholders' responsibilities regarding WaSH services is summarised
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9 in **Table 5**.

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12 However, although an official institutional framework for WaSH services exists,
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14 there is a lack of clarity over the responsibilities of different actors and a lack of
15
16 appropriate managerial, scientific and technical capacity to fulfil their roles (**Interview**
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18 **4**). Furthermore, roles are often mixed up and there is no clear separation between
19
20 regulatory, monitoring and executive duties between institutions (**Interview 5**). For
21
22 example, in relation to financing arrangements for the sector, national policy is
23
24 ambiguous about when exactly municipalities or central Government can or should
25
26 contribute to financing the costs of renewal or replacement of rural water infrastructure
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28 (**Interview 14**), a key factor in effective service delivery.
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34 ***Key political economy issues in the WaSH sector and Entry Points for*** 35 ***Promoting Change***

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38 In Rwanda, there are a number of political economy contentious issues in the WaSH
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40 sector, and six key PE_A issues were identified during the workshop. These were: (i)
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42 capabilities and skills; (ii) integration; (iii) prioritisation and finance; (iv) limited
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44 reliable data to inform decision-making ;(v) decentralisation ;(vi) sustainability and
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46 mitigating risks. The six PE_A issues are interlinked and, taken together reflect the
47
48 complexity of the problem. Each of the issues is discussed below in an attempt to
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50 identify entry points for promoting change.
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56 ***Capabilities and skills***

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59 In the workshop, capabilities and skills were among the most frequently quoted WaSH
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3 priority actions. Lack of capabilities and skills was identified as a major bottleneck
4
5 hindering improvements in WaSH services. For example, districts do not have
6
7 insufficient staff to inspect sanitation facilities nor do the staff have the required skills
8
9 to implement WaSH activities. This situation is exacerbated by a high turnover of staff.
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12 *".....The overall improvement of the workplace tends to decrease with high*
13 *turnover..... Since a new employee has a period of adjustment, he won't*
14 *complete tasks as quickly as the person he ' replaces" (Official of SNV in*
15 *workshop).*
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18 Another participant observed that lack of capacity went beyond human capacity and
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20 included financial and material resources.
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23 *".....There is a need to ensure that the personnel are working within a*
24 *functional system, with the financial and material resources to carry out their role*
25 *effectively"-(Official of Nyarugenge district in workshop).*
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30 For most participants, having sufficient, qualified, technical staff and other
31
32 resources is essential for improving WaSH services. The participants also suggested that
33 for sustainable WaSH improvement, the Government of Rwanda should continue
34 investing in behaviour changes in hygiene practices in schools. -This means that As a
35 result, strengthening and empowering the existing school WaSH clubs is equally
36 important.
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44 ~~The participants raised important points about school WaSH clubs, such as the~~
45 ~~need to strengthen and empower them. Some participants pointed out that the private~~
46 ~~sector and civil society were also important providers of WaSH services and need to be~~
47 ~~included in training and development initiatives.~~
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53 ~~The participants also suggested that for sustainable WaSH improvement, the~~
54 ~~Government of Rwanda should continue investing in existing initiatives such as~~
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HAMS²-Village meeting forums such as *Umugoroba w'Ababyeyi*³ (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

² ~~It is a programme started in 2000 that focuses on behaviour changes in hygiene practice in schools.~~

³ *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.

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3 *the construction of new ones, and will inform and demonstrate the*
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5 *technology to the 'public'" (Official of WASAC in workshop).*
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8 However, as the participants in the workshop recognised, a more comprehensive
9
10 framework considers capacity development on three levels: developing a supportive
11
12 enabling environment consistent with achieving WaSH goals; building the capacity of
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14 institutions to ensure that systems and procedures are in place, and building the skills
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16 and capabilities of employees to improve their job performance.
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19 This is considered -as very important because if districts are to be able to act as
20
21 service providers and support community in improving WaSH and other services at the
22
23 community level, they require support and assistance from central government water
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25 ministries, the private sector, training or academic institutions and, and NGOs.
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30 *Integration*

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32 Fragmentation of the WaSH sector was seen by participants in the workshop as an
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34 important issue. Participants thought that fragmentation produces a confusing and often
35
36 contradictory landscape in which practitioners attempt to function:
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39 *"...Actually, there is no WaSH sector in Rwanda because WASH*
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41 *responsibilities are spread across many ministries and consequently, there is*
42
43 *bound to be duplication of functions and conflict of authority. The processes*
44
45 *that influence resource expenditure for the provision of safe drinking water*
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47 *and sanitation spending (MININFRA) is entirely separate from those that*
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49 *determine allocation of hygiene spending (Ministry of Health)..." (Professor*
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51 *of University of Rwanda, College of Science and Technology in workshop).*
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56 While agreeing with this observation, another participant went further and
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58 argued that the bottom line when it comes to policy is the lack of coordination and
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3 collaboration both within and between governments, NGOs and the public. It was
4
5 widely agreed in the workshop that policies should be holistic and provide for inter-
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7 ministerial and trans-boundary mechanisms that address WaSH as a sector, as a
8
9 determinant of health, a catalyst for economic growth and as a prerequisite for safe
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11 health care delivery.
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14 Furthermore, the workshop participants provided examples of how national
15
16 forums or platforms can contribute to strengthening accountability and transparency.
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18 Participants recommended that WaSH forums at central and local levels should be set
19
20 up to make needs known to the Government and other providers of WaSH services.
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22 Similarly, the active participation and involvement of all stakeholders -from the
23
24 grassroots up to the higher levels - in improving WaSH is vital (Abbott et al. 2015).
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30 *Prioritisation*

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32 PEA is, among other things, aware of how political ideology may influence public
33
34 policy and policy priorities. One key aspect raised in the workshop is the extent to
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36 which WaSH services are prioritised as an important 'political' issue. According to a
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38 majority of participants in the workshop, WaSH services do not seem to figure
39
40 prominently in political discourses, although the president is a strong advocate of
41
42 WaSH. The speeches of government officials have focused on education, health,
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44 infrastructure, energy development and land, rather than the provision of safe drinking
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46 water and sanitation⁴. This does not mean, necessarily, that water and sanitation are not
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48 important issues for ordinary Rwandans.
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58 ⁴ One of the reasons for the low priority of water and sanitation is that Rwanda is comparatively
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60 good, especially on sanitation compared to other low- income and many low- middle income
countries.

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3 Although participants in the workshop agreed that water and sanitation were low
4 priorities for Government, sanitation and hygiene were also said to be a low priority
5 compared to water. One participant noted that water supply gets the lion's share of
6 resources; sanitation is under-resourced and its administration divided between several
7 ministries each claiming to have specific components relating to it (Table 5). Some
8 participants noted that politicians need to be informed and held accountable for the
9 challenges in WaSH. Where political will is weak or absent, strategic advocacy efforts
10 are necessary to ensure that the issue of sanitation and hygiene is placed high on the
11 political agenda.
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24 According to some participants in the workshop, this can be done by: (i) raising
25 the profile of sanitation and hygiene issues by showing how they link to SDG 6 targets;
26 (ii) creating pressure groups at national and local levels; (iii) involving the media in
27 bringing the issue to the attention of the public; (iv) holding national and local forums
28 and learning sessions for developing advocacy/lobbying skills.
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37 *Limited reliable evidence data to inform decision-making*

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39 ~~Accurate, reliable and timely WaSH data is critical to a wide range of scientific,~~
40 ~~educational, and governmental uses, and is essential to decision-making in many~~
41 ~~realms.~~ There was an agreement among workshop participants that reliable evidence,
42 data or analysis to inform decision-making is limited making it difficult to track
43 progress. One participant noted:
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51 ".....It is difficult to plan and make decisions about where investments in
52 WaSH should go due to the lack of reliable and accessible information..”
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55 (Official of Boundless Consultancy Group in workshop).
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3 This quote is important because data relating to WaSH services in Rwanda
4 remains an issue. Recently, the Management Information System (MIS) was initiated
5 by MININFRA as a monitoring and evaluation tool towards improving performance in
6 WaSH. The WaSH MIS is web-based software that supports management of WaSH
7 data from all districts including data collection, entry, validation, analysis structuring,
8 storage and summary display through dashboards (MININFRA 2019), but it is not yet
9 fully effective and operational. The lack of data makes investment allocations difficult
10 and coordination of activities complicated.
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21 Furthermore, as noted by the participants, there is no clear evidence that
22 evaluations of the various policy documents and implementation plans that have been
23 developed over the years took place and whether new plans or policies are based on the
24 lessons learnt towards effective provision of WaSH services. Reasons for failures to
25 achieve the set targets are also not holistically documented to inform decision making.
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36 *Decentralisation*

37 The workshop participants mentioned that given the PE_A context, certain political
38 constraints and incentives limit the nature and scope of fiscal, administrative and
39 political decentralisation in the sector. Potential entry points, as raised by the
40 participants, include the following:
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46 Mitigating the potential risks of decentralisation by ensuring real powers and
47 real resources are handed over to local administrations (mainly districts). The Vice-
48 Mayor in charge of economic development is responsible for water supply while the
49 Vice-Mayor in charge of social affairs is responsible for ensuring that the problems,
50 priorities and needs of the people are taken into account in service delivery. So far, the
51 two mayors work in silos with limited integration and to be more effective the two vice-
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3 mayors (economic development and social affairs) at district level need to work
4
5 together to ensure seamless integration and implementation.
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7 Addressing the issues of two vice-mayors working in silos is important because
8
9 decentralisation processes are embedded in the broader political context of Rwanda.
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11 Multi-stakeholder dialogues may be useful to review the bottlenecks in decentralising
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13 WaSH services as pointed out by the participants in the workshops. Clarity on
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15 complementary roles between stakeholders and the resource requirements for each
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17 could also be assessed in the proposed dialogues.
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23 *Sustainability and mitigation risks*

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26 The problem of the sustainability of water and sanitation services is still a critical PEA
27
28 issue. The majority of participants in the workshop noted that the issue of sustainability
29
30 includes the inadequacy of financial revenues to cover the full operation and
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32 maintenance and capital investment costs of infrastructure. At local levels, these are
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34 operation and minor maintenance expenditure, capital maintenance expenditure, and the
35
36 costs of ongoing support to service providers.
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39 However, a minority of participants observed that the issue of sustainability and
40
41 financing of water supply and sanitation services should be analysed within their wider
42
43 political contexts, with particular attention being paid to understanding the role of
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45 external organisations such as NGOs in influencing institutional change. For rural water
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47 services to be sustainable, the participants suggested that the full costs of providing the
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49 services must be matched to adequate sources of financing.
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Discussion and conclusion

The purpose of the 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 surpluses⁵.

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

⁵ ...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.

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2
3 a dialogue and agreement between leaders and citizens through the existing frameworks
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5 (village council, cell council, community health workers, etc.). It is widely accepted by
6
7 scholars that decentralisation was a key driver for the implementation of the
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9 Community-Based Environmental Health Promotion Program (CBEHPP) (Nkurunziza,
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11 UM, and Dlamini 2013; Tsinda 2011; Ntakirutimana and Rubuga 2017). CBEHPP has
12
13 been instrumental in changing hygiene behaviour, reaching all communities and
14
15 empowering them to identify their personal and domestic hygiene and environmental
16
17 health-related problems (including access to safe drinking water and improved
18
19 sanitation) and solving them.
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24 The Government of Rwanda has decentralisation policy and this has the
25
26 potential to better serve the interests of ordinary citizens. However, decentralisation has
27
28 been partial and incomplete with an acute shortage of qualified and trained personnel,
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30 particularly at lower tiers of government. There are still significant technical
31
32 capabilities' gaps everywhere, which act as a brake on Rwanda's economic, social and
33
34 political development (Booth et al. 2014). ~~For example, there is a shortage of qualified
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36 environmental and WASH scientists for mainstreaming WaSH services at the central
37
38 level and even more so at the local level.~~ As has been found in other studies – for
39
40 example, in Burkina Faso, Mali and Mozambique – decentralisation can result in
41
42 reduced service delivery in the absence of increased resources at the local level
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44 (Resnick 2014; Dickovick and Wunsch 2014).
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49 While decentralising service delivery can improve it by making it more responsive to
50
51 the needs of citizens, this has not yet happened in Rwanda. This is partly because of
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53 limited engagement of citizens in advocacy combined with a shortage of skilled workers
54
55 and limited funding (Prime Minister Office 2015). To be effective, real powers and
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57 resources need to devolve to local administrations and the consequence of not doing so
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3 is to limit their ability to operate and their political legitimacy. However, the effective
4 delivery of services also depends on the coordination of all functions, with each
5 institution having a clear understanding of what is to be done, the means to do it,
6 accountability for doing it, and an agreed mechanism to ensure effective coordination of
7 necessary activities (Schrecongost et al. 2020).
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14 In Rwanda, many institutions are still involved in WaSH issues. Identifying
15 leadership will help to ensure that policies are developed and programmes implemented.
16 As demonstrated in Kenya, in 2010, the Ministry of Health established an Inter-Agency
17 Coordination Committee (IACC) for Sanitation and Hygiene bringing together different
18 ministries – including those for Water Resources, Education, and Science and
19 Technology – along with development partners. This fostered dialogue and ensured
20 coordination between ministries. Effective inter-ministerial and cross-sectoral
21 collaboration, particularly between ~~the Ministry of Infrastructure~~ MININFRA and ~~the~~
22 MoH ~~Ministry of Health~~ and between WASAC and districts at the local level is required
23 in Rwanda.
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37 To be more effective, MININFRA, MoH, WASAC and districts should ~~These~~
38 ~~institutions need to~~ consider working with and through “parents' forums”
39 (*Umugoroba w'ababyeyi*), community works (*Umuganda*), village council
40 commissions, district council commissions (social, economic, political), and
41 Cecommunity-Bbased Organisations (CBOs) such as elders, national women council at
42 the village level, national youth women council at the village level, Cecommunity
43 Hhealth Workers (CHWs), associations (people with disability, etc.) and cooperatives.
44 Theis dialogue using these forums and groups could help counteract the risks of
45 politically expedient cost-cutting bottlenecks.
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3 A further set of possible entry points for driving change as provided by scholars
4 (Harris and Wild 2013; Cotula 2012; Allouche, Middleton, and Gyawali 2015), include
5 the political commitments, the strength of oversight systems, coherence (between
6 policies and processes for implementation), and capacities for local problem-solving
7 and collective action and identification of the right agents of change. In Rwanda, given
8 the PE context, the most powerful agent of change is the Government. The Joint Sector
9 Reviews and Technical Working Groups at a national level including Ministry of
10 Infrastructure (MININFRA), Ministry of Health (MoH), Water Sanitation Corporation
11 (WASAC) and Ministry of Local Government (MINALOC) and the Joint Action
12 Development Forum (JADF) at a district level are a good entry point for change.
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26 This was evidenced in other countries such as Malaysia and Indonesia where the
27 centrally controlled but locally undertaken planning model was designed to produce
28 local ownership of sanitation challenges and improvements, through giving special
29 attention to city-level planning, strengthening sector strategy and institutional
30 arrangements, and advocacy and awareness-raising at all levels (Ostrom 2011;
31 Abey Suriya et al. 2019).
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40 In a PEA context, operational solutions are not always clear-cut but, they need to
41 be more effective, politically feasible and sustainable in the long-term. However,
42 Rwanda still lacks adequate frameworks for financial planning to ensure that all the
43 long-run costs of rural water services are included. Therefore, the following are the
44 four suggestions to promote sustainability in water and sanitation:
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- 51 1. There must be real demand from users which is evidenced by the consistent
52 use of improved water and sanitation services and the practice of good
53 hygiene behaviours.
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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 prioritization of WaSH services. However, changing the political agenda is a long and complex process⁶, 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

⁶... Because it depends on citizens' awareness of and interests in the performance of the sector.

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3 *Umugoroba w'ababyeyi*), community juries (*Inteko z' abaturage*) could lead to an
4
5 improvement in services.
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8 Second, strengthen the capacity of citizens and opinion leaders to pressure
9
10 politicians to place water, sanitation and hygiene higher up the agenda –
11
12 communications (during community works or *Umuganda*) on 'rights to water and
13
14 sanitation' may have the potential to slowly transform political obligations on water and
15
16 sanitation issues.
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19 These findings have implications for other low-income countries where efforts are
20
21 underway to improve WaSH services. We hope our findings enable practitioners to
22
23 develop interventions which are more effective and politically feasible.
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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
	8	District of Gasabo	2
University	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

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
	WaterAid	1
Private sector	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
Prioritization/Finance-8 votes	Sector processes-5 votes
Sector Performance-8 votes	Learning-4 votes

Leadership-3 votes

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 500m of an improved water source from 47.% (EICV4) to 100%, and to raise the proportion of the urban population residing within 200m 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	Aims a clean and healthy environment that is resilient to Climate Variability and Change and supports a high quality of life for its

Climate change 2019	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	Recognises water as an economic good, opted for integrated and

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Water Resources Management 2011	demand –driven-services.
16 17 18 19 20 21 22 23 24 25 26 27 28 29	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.
30 31 32 33 34 35 36 37 38 39	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.
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	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	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

environment	
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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	Responsible for good governance in all local administration levels including environment governance at local level and various community management programmes: <i>Umuganda</i> ,	***

(MINALOC)	<i>Ubudehe, and Imihigo</i> and coordinating implementation of various government programs (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	Responsible for setting up environment standards and regulations; monitoring, inspecting, and ensuring compliance with environmental awareness; enforcing environmental	***

1 2 3 4 5 6 7	Authority (REMA)	regulations and raising awareness about domestic and industrial solid waste management.	
8 9 10 11 12 13 14 15	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).	***
16 17 18 19 20 21 22	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.	***
23 24 25 26 27 28 29	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.	**
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	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, mobilize funds (e.g. tax collection as stipulated by law and decentralization policy), preparing budgets and projects including those related to environment and sanitation, implementing government policies and specific projects and participate in the policymaking process.	***
50 51 52 53 54 55 56 57 58 59 60	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.	**

1 2 3 4 5 6 7 8 9 10 11	NGOs	Responsible for the provision of Water and Sanitation facilities (especially to the poor), provision of technical support, sensitization on hygiene, advocacy and advice in policy making. Key NGOs include: Water for People, Water Aid, PROTOS, MLFM, AVSI, CICR, and the World Vision.	**
12 13 14	Private sector	Include engineers' associations, private sector operators in WASH sector, etc.	**
15 16 17 18 19 20 21 22 23 24 25	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	**

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