

# STRENGTHENING WASH SYSTEMS: TOOLS FOR PRACTITIONERS



Sustainable  
Services  
Initiative



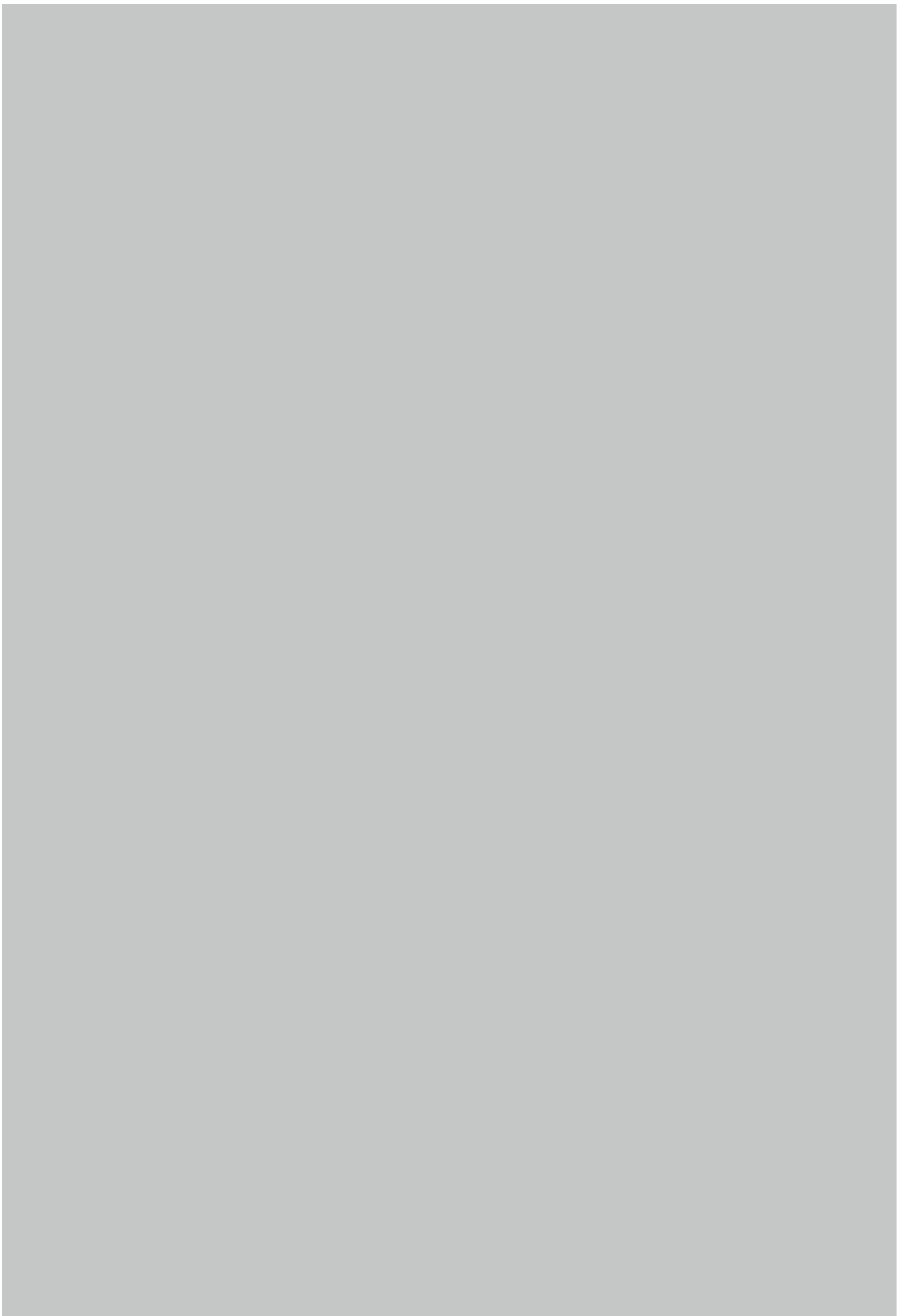
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This toolbox can be referenced as: WHH, Aguaconsult & German Toilet Organization 2019: Strengthening WASH Systems: Tools for Practitioners.



# AN INTRODUCTION TO THE SSI-TOOLBOX

# 0101

## A. Background

The Sustainable Development Goals set ambitious water, sanitation, and hygiene (WASH) targets. Persistent failure to sustain services has plagued the WASH sector for decades, and there is an ever-growing recognition that for services to be sustainable and operate at scale, the wider [sector](#) needs to be sufficiently robust to enable, support and sustain such services. This requires a progressive shift in development partners and NGOs' focus in the WASH sector: from largely isolated 'project' approaches, often focusing only at the community level, to progressively understanding the wider WASH 'system', and collaborating to strengthen the 'actors and factors' within such a system at different 'levels' (see Topic 0102: Introducing WASH System Concepts).

This toolkit has been developed by the [World Health Organization \(WHO\)](#), which is an undertaking of [Welt-hungerhilfe \(WHH\)](#) to improve the sustainability of its WASH programming. [Sustainable Systems Initiatives \(SSI\)](#) is a core focus. The SSI also seeks to add value to the wider sector in terms of WASH systems thinking, through participation in collaborative efforts such as [Agenda for Change](#).

## B. What is this toolkit for, and who is it for?

The toolbox was developed primarily for WHH country staff seeking guidance and reference materials to help them understand and apply systems strengthening approaches in their WASH programming. However, **this toolkit is not organisation-specific and has utility across a range of organisations**. This toolkit is open source and can be used free of charge. It is simply requested that those utilising the toolkit's contents acknowledge the authors and the SSI (or the source of the tool that this toolbox contains).

This toolbox draws on content from a range of sources and organisations in the sector, and seeks to compliment and add value to existing resources in the sector, such as the [WASH Systems Academy](#) which provides online training, and collections of tools developed by [Sanitation and Water for All \(SWA\)](#), [IRC](#), [UNICEF](#) and others.

The toolbox provides information on systems strengthening in a summary format, developed for country or field-based practitioners. It is written primarily from the perspective of an NGO – such as WHH – wishing to engage in systems strengthening, particularly at the local (e.g., district or equivalent, and below) level.<sup>1</sup>

It is hoped that the Toolbox will enable country or fieldbased practitioners to apply most WASH systems strengthening approaches without the need for country visits from international consultants or headquarters staff. This is critical to developing in-country capacity and, as a result of the ongoing COVID-19 pandemic, is currently a practical necessity.

## C. What does it contain, and how to use it?

It includes a series of one-page topic briefs, organised in five sections, broadly following the typical approach to programme interventions of WHH country offices:

Introduction	Getting started	Context analysis and development of WASH plans	Strengthening the system	Monitoring, learning & upscaling
Introducing the toolkit and the concepts of WASH systems and strengthening them	Orienting staff, project design /adaptation, and advocacy	Analysing needs and the overall WASH 'system', costing, and developing WASH plans	Practical actions to strengthen the system, focusing on various 'Building Blocks'	Monitoring service sustainability and 'systems change', sector learning and upscaling

Each brief introduces the topic, explaining why it is important to systems strengthening, and provides practical guidance and tips. It also includes a one-page summary of relevant resources, with hyperlinks to them. The resources include other existing tools, toolkits, publications, presentations, videos, guidance notes and online training courses on the topic, developed by both the SSI/WHH and other organisations in the sector.

<sup>1</sup> WHH generally (but not exclusively) has a stronger comparative advantage and added value in strengthening systems at the local rather than national level. However, this toolkit acknowledges the linkage between national and local-level systems strengthening initiatives, provides examples of system strengthening at the national level and encourages any local systems strengthening initiatives to aim to upscale and inform and influence the wider sector.

Throughout the document, there are pop-up text boxes with further information or definitions, which are marked by **pink** font.

There are also hyperlinks to resources presented in **pink** font. Where there is a **pink number**, the hyperlink will take you to a resource on the Toolbox Google Drive platform (this number also corresponds to where the resource can be found on Google Drive). Where there is **pink text**, the hyperlink will take you to an external website. To avoid losing track of where you are in the Toolbox, we recommend opening all hyperlinks in a new tab. A glossary of key terms is included as section six of this toolbox, and resources are saved in google drive folders, with a unique six figure reference code. The complete Toolbox can be accessed and downloaded **here**.

## INTRODUCING WASH SYSTEMS CONCEPTS

# 0102

### A. Introduction

Poor post-project sustainability is a persistent and widespread problem across the WASH sector, including for WHH. Conventional approaches to improving WASH access that focus only on community-level interventions (e.g., constructing infrastructure, training voluntary water and sanitation committees and sanitation and hygiene behaviour change initiatives) have often failed to achieve impact at scale and suffered from poor sustainability. Non-functionality figures of between 30 and 40 percent are frequently cited for handpumps and have consistently been reaffirmed by various studies over the last decade (see 010211). Concerning statistics are also found for sanitation and hygiene interventions, with some multi-country studies finding slippage rates of 13 percent for toilet ownership and 92 percent for key household sanitation and hygiene behaviours following community-led total sanitation interventions (010210).

As a result of these sustainability challenges, there is a growing recognition of the need to strengthen the wider 'system' in which WASH services are delivered, and that weaknesses in this system undermine the potential for sustainable services at scale. Without strengthening the wider system to support, oversee and enable community-level WASH services on an ongoing basis, post-project 'slippage' in service delivery will continue.

### B. Concepts and Terminology

Systems theory refers to 'actors' and 'factors' in the system and defines a WASH system as '*all the social, technical, institutional, environmental and financial factors, actors, motivations and interactions that influence WASH service delivery in a given context*' (010203: Huston & Moriarty, 2018).

- **Actors:** are the key stakeholders that directly or indirectly influence the system, including public, private, politicians, technocrats, non-state, civil society and users. There are also different '**levels**' of actors, from **national-level authorities** (responsible for aspects such as legislation, policy and regulation); '**service authorities**' (those legally responsible for WASH services in a defined area – which is often, but not always, local government); and '**service providers**' (those responsible for the day-to-day operation and management of WASH services).
- **Factors:** A factor is '*a non-human element, aspect, or component of a system that directly or indirectly influences system functioning or outcomes*' (010203: Huston & Moriarty 2018). See the conceptual framework Figure 02 for categories of key factors, presented as **Building Blocks** (BBs) of the WASH system.

Systems thinking embraces **complexity**, acknowledging the dynamic interplay between actors and factors, and that systems are adaptive; the actors in a WASH system – at the national, district (or equivalent) and community levels – are capable of learning and adapting when given new information (or resources), and overtime interventions can have profound impacts on their behaviour and performance.

In recent years, there has been a concerted push by many important WASH sector stakeholders to adopt a systems-strengthening approach in their work. WaterAid defines a systems-strengthening approach as '*understanding that WASH exists in complex systems with many component parts and within different social, economic, political and environmental contexts. It involves identifying and working to address the barriers in behaviours, policies, processes, resources, interactions and institutions that block the achievement of inclusive, lasting, universal access to WASH*' (WaterAid, 2019).

By working to strengthen systems, organisations can broaden the scale of their impact beyond the target communities and build foundations for more sustained outcomes. For example, when properly designed and implemented, a set of systems strengthening interventions at the district level (e.g. strengthening the regulation of service providers or government monitoring systems) can have a positive impact on all of the communities within the district (not only in the project target communities for increasing access to services). If the lessons learnt are shared at the regional or national level, a systems-strengthening intervention can even have a positive influence on an entire country's WASH sector (see 010210 for an illustration of this).

Through the SSI, WHH is integrating a systems-strengthening approach into its work and has developed the Theory of Change outlined in Figure 01 that underpins this initiative. This Theory of Change focuses on capacitating actors at the district level, providing and mainstreaming learnings for policymaking and promoting a sectoral debate at

the national level. Several other organisations, including  , and   have also produced a Theory of Change that guides their systems strengthening activities.

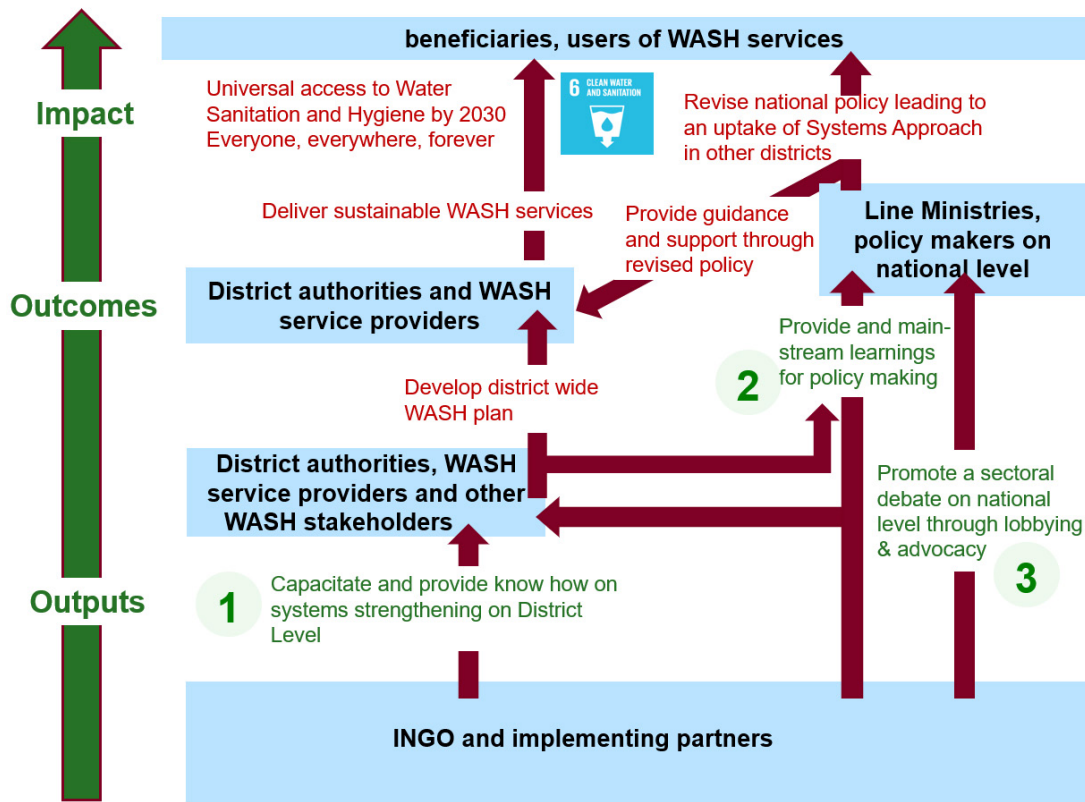


Figure 01: SSI Theory of Change

### C. Conceptual Framework for systems-strengthening

Sector actors have produced various conceptual frameworks to analyse WASH systems, trying to simplify complexity as a means to engage with and strengthen different factors and actors. These frameworks often refer to Building Blocks and attempt to assess relative strengths, gaps or weakness. Just like how weak foundations will undermine the stability of a house, weak or ‘missing’ Building Blocks will undermine the effectiveness and sustainability of WASH service delivery. The SSI uses the framework detailed in Figure 02 to help to assess the status of the system, and identify where organisations such as WHH (and partners) can impart positive change in the system (see 0103, 0302). The framework outlines nine such Building Blocks, the key levels and actors in the system and the interface with other sector ‘systems’.



Figure 02: SSI Conceptual Framework of WASH System (Adapted from the Agenda for Change Framework)

## D. Resources (papers, tools, good practice examples)



**Figure 03:** Detail behind the SSI Building Blocks (sub-factors)

Several key papers provide a detailed outline of the concept and rationale for systems strengthening, with definitions for key terms used in systems theory and give more background to the purpose and use of conceptual frameworks. Further orientation on the concepts of WASH systems is provided in the [WASH Systems Academy](#) online training course. Further resources to orientate staff on WASH systems concepts is provided in Topic: 0201. Undertaking systems strengthening implies not just activities but organisational ways of working and principles. Agenda for Change and SWA both have resources on this, covered in the table below.

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">010204</a> : Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis, 2019	A paper summarising the concepts and rationale for systems strengthening, practical examples of systems strengthening, and implications on ways of working, from Agenda for Change's perspective
Publication	<a href="#">010203</a> : Understanding the WASH System and its Building Blocks	Huston & Moriarty (IRC), 2018	A paper outlining the theory behind WASH systems and rationale for BBs. Note – this uses the 'IRC' BBs (slight difference to SSI BBs, but highly similar).
Publication	<a href="#">010205</a> : Strengthening Sanitation & Hygiene in the WASH Systems Conceptual Framework	Gensch & Tillett (SSI), 2019	A paper outlining the proposed SSI conceptual framework (see Figure 1, Figure 2), with a focus on how WASH systems concepts applies to sanitation and hygiene
Online training course	<a href="#">IRC WASH Systems Academy</a>	IRC, 2019	A free, 16 hour online course that assists WASH sector professionals to apply a systems-strengthening approach.
Video	<a href="#">Its About Strengthening WASH Systems</a>	IRC, 2019	A short introductory video introducing the problem of the low functionality rate of WASH infrastructure and the importance of WASH systems.
Related Topics		SSI Toolbox	Orientating Staff and Local Authorities on Sustainability Issues and Systems Strengthening

In addition to the above, further resources are available at [010206](#).



## ENTRY POINTS FOR SYSTEMS STRENGTHENING

# 0103

### A. Overview of the topic

Any country faces unique challenges and there is no one single entry point for organisations and projects to begin . Often, programmes already have elements that seek to strengthen elements of the WASH systems, but not necessarily termed as such. Topic 0203: Project Design or Adaption to Include Systems Strengthening provides suggestions as to how to design new programmes or adapt existing ones to include systems strengthening approaches. This topic brief provides generic examples of entry points and processes for systems strengthening. Actions to strengthen the individual are covered in more detail in Section 4.

### B. Common process and tips on what to consider

**WASH System diagnosis and joint visioning as a starting point:** To work on strengthening the WASH system, it is first necessary to understand it, the weaknesses and where your organisation and programme fits within the wider system. Initiatives often include a ‘systems analysis’, using tools such as Building Block Checklists (refer to Topic 0302), Political Economy Analysis (refer to Topic 0301) and market assessments, to identify within the system which can be used to impart positive systems change. From assessments, plans can be developed, in collaboration with other stakeholders, to address the identified gaps. Developing a joint vision or desired ‘end point’ helps to garner stakeholder commitment on systems strengthening actions from the outset.

**Examples of entry points and processes:** Some examples of entry points are presented below, with a focus on local system-strengthening rather than national-level initiatives: <sup>1</sup>

- **Using data as an entry point and following a phased approach:** Systems strengthening takes time, and often requires strong relationships and a degree of trust between the organisation seeking to strengthen the system, and the system themselves. Data, for example, from field surveys, is often something that NGOs produce that can be used as an entry point for initial collaboration with the local authorities.<sup>2</sup> Topics 0303, 0304 and 0305 outline how an NGO can collaborate with a to undertake detailed, district (or equivalent)-wide field assessments, to serve as a basis for a life-cycle costed WASH plan. However, surveys do not only need to be done for WASH plans (see Text Box for an alternate example).
- **Strengthening capacities and influencing behaviours in the system:** Capacity strengthening can be at the <sup>3</sup> or service authority level,<sup>4</sup> or potentially even at the sector level. In certain contexts, supporting organisations have seconded staff to service authorities, aiming to strengthen systems ‘from the inside’. Other organisations focus systems strengthening efforts by influencing dynamics and behaviours in the system, for example improving communication flows, decision-making and learning processes.

#### Asset inventory mapping in Uganda

WHH assisted the Karamoja District Authority (Uganda) to map all the rural water points in the district. This was an entry point to raise political commitment to the issue of service sustainability and was an early collaboration in the WHH-Service Authority relationship. The database created from the survey formed the asset inventory for the whole district. The collaboration helped build trust and deepen the relationship, allowing WHH to progressively engage on further systems strengthening.

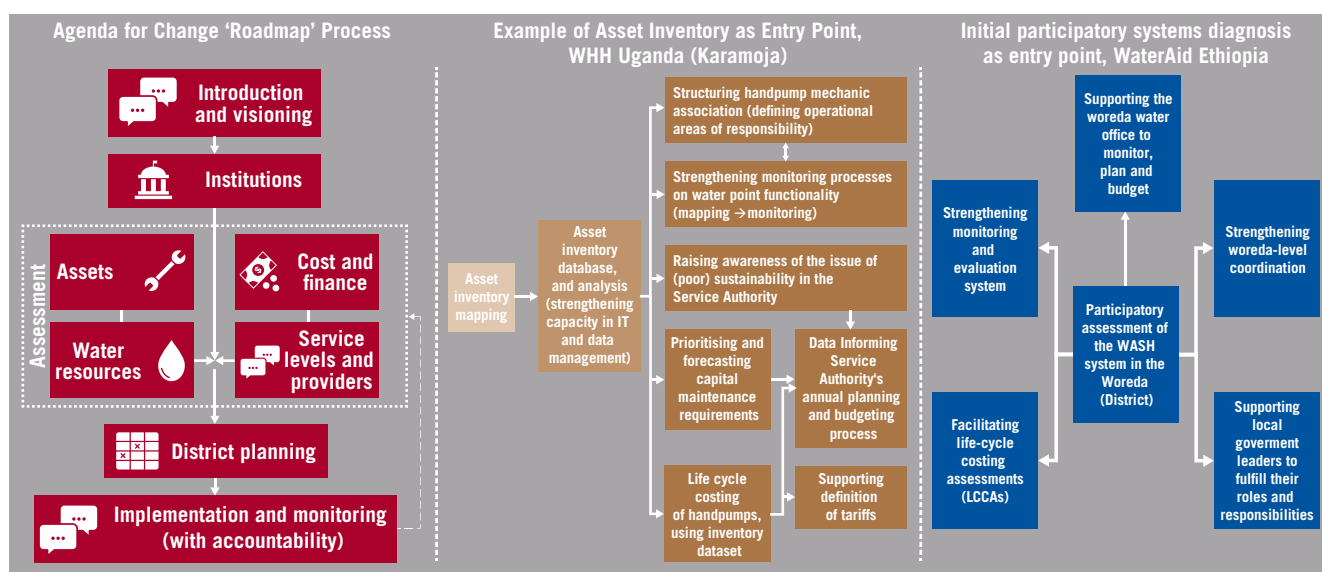
The initial asset inventory was used to structure the handpump maintenance services in the district and helped forecast and prioritise capital maintenance works. A life-cycle cost analysis was undertaken using the data, helping to inform tariff setting and the service authority’s budgeting for capital maintenance and direct support costs. This led to strengthening the use of data in the planning and budgeting processes of the service authority. Work is ongoing to strengthen monitoring systems, focussing on updating the asset inventory dataset.

<sup>1</sup> WHH has a focus on local level systems strengthening, whilst influencing national efforts through field evidence – rather than strengthening national systems alone.

<sup>2</sup> Surveys can also be used to provide hard evidence on an issue, to raise political interest or stakeholder commitment on a neglected topic – for example, data on rates of non-functionality, or statistics arising from Shit Flow Diagram processes.

<sup>3</sup> E.g., strengthening the capacities of/ professionalising service providers, or piloting service delivery models (see 0408)

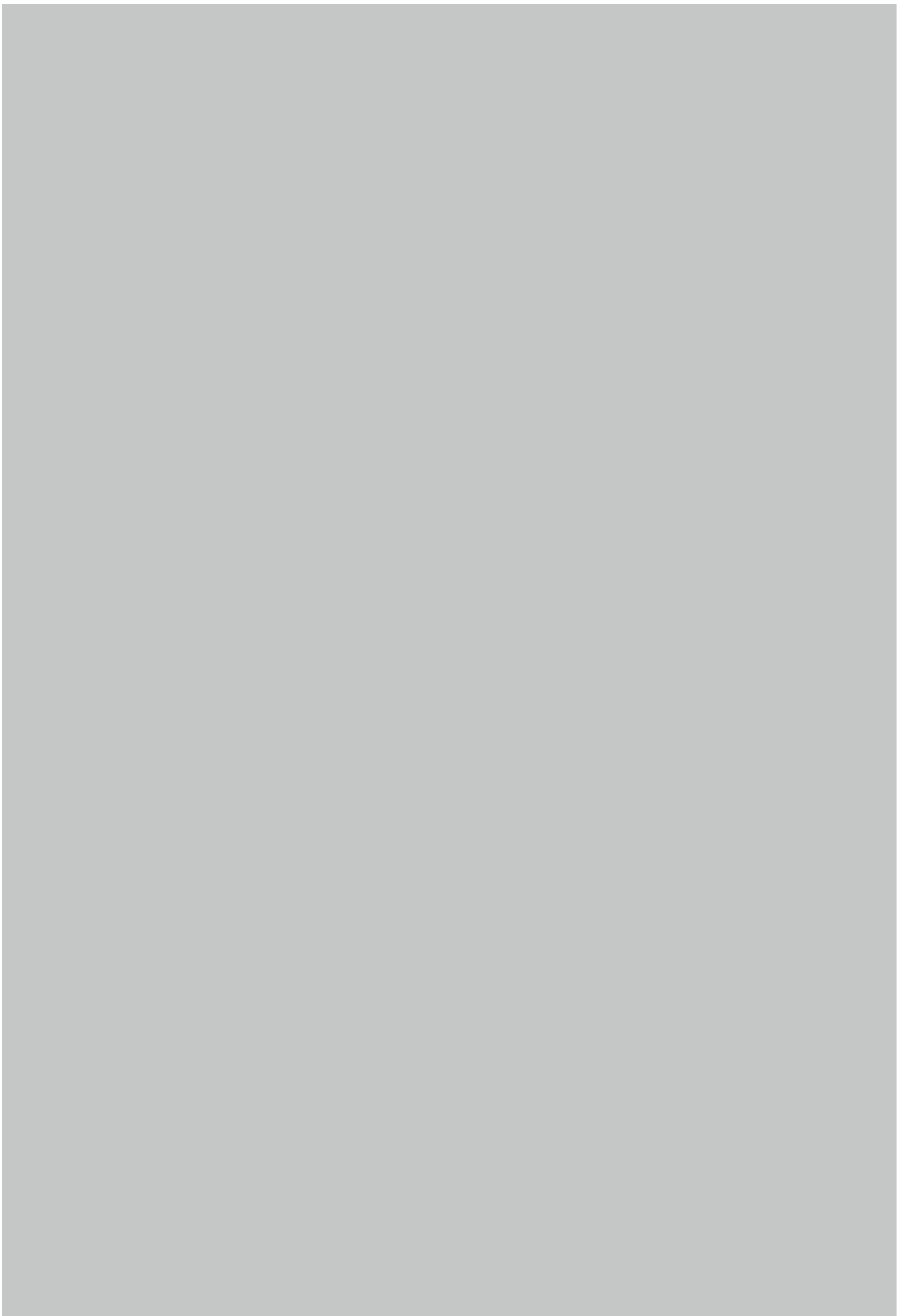
<sup>4</sup> E.g., looking at skills (e.g., through training and mentoring), equipment, data and information management, coordination, strengthening management/monitoring processes, etc – see Section 4 for a wider list of systems strengthening examples



**Figure 04:** Examples of entry points and processes of systems strengthening (non-exhaustive). Source: Agenda for Change (2017), WHH (2019) and adapted from WaterAid 2019

There are a number of examples or ‘journeys’ of systems strengthening that various organisations have followed, many of which are documented in the Agenda for Change Systems Strengthening Paper (010302). The IRC and Agenda for Change websites also host case studies of systems strengthening initiatives. Systems analysis and the Agenda for Change ‘Roadmap’ process is outlined in detail in Section 3, whilst Section 4 provides concrete examples of systems strengthening across the BBs as well as strengthening systems with a focus on different contexts (e.g., focusing on sanitation and hygiene (refer to Topic 0405), WASH in schools (refer to Topic 0406), or in fragile contexts (refer to Topic 0407). Additionally, the WASH Systems Academy ‘basic course’ includes several cases that highlight entry points to systems strengthening.

Type	Tool / Resource	Author, Date	Description
Publication	010302: Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis, 2019	A paper summarising the concepts and rationale for systems strengthening, practical examples of strengthening, and implications on ways of working, from Agenda for Change’s perspective.
Publication	010301: Agenda For Change: A District Level Roadmap for Universal Access to Sustainable Services	Tillett & Smits, 2017	A 30-page document that provides a generic (non-country specific) road-map focussed on the process of supporting service authorities to develop WASH plans to achieve SDG targets, and how to support in the operationalisation of this plan.
Publication	010303: Strengthening Sanitation & Hygiene in the WASH Systems Conceptual Framework	Gensch & Tillett (SSI), 2019	A paper outlining the proposed SSI conceptual framework with a focus on how WASH systems concepts apply to sanitation and hygiene.
Presentation	010304: Examples of Systems Strengthening	SSI, 2019	A PPT slide deck developed for a stakeholder training workshop in Hargeisa, Somaliland, showing some (non-exhaustive) examples of systems strengthening from other countries.
Related Topics		SSI	Project Design or Adaption to Include Systems Strengthening
		SSI	Analysing the Political Economy Around WASH Services
		SSI	Assessing the Strength of Systems at the Local Level
		SSI	Assessing the WASH Context (District/Woreda/County)
		SSI	Analysing the LCC and Determining Tariffs
		SSI	Supporting Local Governments in Developing WASH Plans
		SSI	Systems Strengthening: Focus on Sanitation and Hygiene
		SSI	Systems Strengthening: Focus on WASH in Schools
		SSI	Systems Strengthening: Focus on Fragile Contexts
		SSI	Moving Beyond Basic Community-Based Management



## ORIENTING STAFF AND LOCAL AUTHORITIES ON SUSTAINABILITY ISSUES AND SYSTEMS STRENGTHENING

# 0201

### A. Overview of the topic

This topic brief presents guidance and key tips for orienting support organisation, local partner and government staff on WASH sustainability issues, and concepts of WASH . It is structured around a 2–3 day orientation workshop, and materials are provided from previous SSI workshops, and similar initiatives by [Agenda for Change](#) partners. In addition to such a workshop, staff and partners should also gain deeper insights into WASH systems strengthening by completing the (free) [introductory online course](#) offered by the [WASH Systems Academy](#).

Undertaking such an orientation workshop would be relevant for any WASH country programme aiming to deliver sustainable WASH services at , and would have the following broad objectives:

- To increase participant's understanding of sustainability issues and WASH 'systems' concepts;
- To improve participant's ability to analyse the status of WASH service sustainability and the strength of the at district (or equivalent) level (see Topic 0302);
- To identify potential activities and entry points (see Topic 0103) for WASH systems strengthening, and to develop the consensus and commitment of all participants around the need for systems strengthening.

### B. Common process and tips on what to consider

The following points provide suggestions for the format and delivery of such an orientation workshop:

- The workshop should not exceed 2.5 to 3 days and ideally should not exceed 25–30 participants.
- Workshop participants should include support organisation, local partner and local government staff (not just the district water office but also consider health, education, planning, M&E departments), water and sanitation line ministries and [Agenda for Change](#) partners present in the country.
- Where there are capacity limitations in the country team to facilitate such a workshop, a consultant or regional/head office support staff may be used, although country staff should co-facilitate the workshop as part of building their capacity to deliver such workshops in the future.
- The SSI guidance document for in-country sustainability workshops ([020101](#)) provides an in-depth framework that the workshop can follow. The session timeframes and topics are indicative and can be expanded or reduced depending on need, capacity, experience and number of participants. [020106](#), [020107](#) and [020108](#) contain examples of SSI workshop schedules and slides from projects in Malawi, Nepal and Somaliland.
- If it is envisaged that you will support the development of a district (or equivalent) WASH plan, this orientation workshop could be integrated into the 'visioning' stage of the plan development process. See Topic 0305, and [02010707](#) for examples of such combined workshop schedules.
- Broadly, the workshop should start by building a basic awareness of WASH service delivery and sustainability issues, then progressively introduce more complex concepts such as WASH systems and sustainability drivers, and should end with a jointly agreed action plan to address issues.
- Where the workshop is primarily for support organisation and project partner staff, it may also be relevant to undertake an assessment of the sustainability risks to project(s), and review whether project design, implementation and monitoring approaches are strengthening or undermining systems. [020103](#) provides a series of probing questions that could be used in this scenario.
- A key component of the workshop should be an analysis of the strength of the WASH system, identifying barriers to sustainable WASH services at scale. See Topic 0302 for more details.
- The workshop should maximise participation by using group work, exercises and plenary discussions, to leverage participant's own technical and community knowledge. Lengthy presentations should be avoided, and where presentations are used, efforts should be made to engage the audience wherever relevant. The workshop should be used as an opportunity to build relationships and trust with the local authorities, helping to build consensus and the collaborative actions needed to address them.

## C. Resources (papers, tools, good practice examples)

# 0201

The table below includes several resources for orientation workshops, and also wider resources and courses for staff and partner orientation. Notably, the SSI produced Training on Sustainability Issues in WASH: Generic Guidance Materials for In-Country Workshops (020101) provides detailed information and an indicative workshop schedule, and examples of workshop schedules and powerpoint slide decks used in SSI workshops are provided in 020104.

Additionally, WaterAid have developed guidance for nine interactive sessions that can be used during such stakeholder orientation workshops (020102). Topics 0102 and 0103 provide orientation and further reading material introducing WASH systems and systems strengthening, whilst Topics 0301 and 0305 provide information on analysing the strength of a WASH system and the development of local WASH plans.



**Figure 05:** A photo of an SSI stakeholder workshop in Chitwan, Nepal. Credit: Will Tillett

In addition to the workshop, and reading through this toolkit, it is strongly recommended that support organisation's WASH staff (and partners) undertake IRC's free 16-hour online [introductory course on WASH systems strengthening](#).

Type	Tool / Resource	Author, Date	Description
Online course	<a href="#">IRC WASH Systems Academy: WASH Systems Strengthening: The Basics</a>	IRC WASH, 2019	A dynamic online platform to assist WASH sector professionals in applying a WASH systems strengthening approach. The basic course covers the basic concepts of WASH systems strengthening and it will help you understand what the WASH systems strengthening approach is, how and why it was developed and how to start applying it.
Video	<a href="#">It's about strengthening WASH systems</a>	IRC, 2019	A short video on how the challenge of providing safe water and sanitation services for all is not just one of access but also sustainability and that strong WASH systems are required to overcome the multitude of sustainability challenges. This could be played as part of the introduction to an orientation workshop.
Tool	<a href="#">020101: Training on Sustainability Issues in WASH: Generic Guidance Materials for In-Country Workshops</a>	SSI, 2018	A 10-page tool that provides guidance on how to conduct an orientation workshop on key sustainability issues as well as an indicative workshop schedule that could be followed. <a href="#">020104</a> provides four generic powerpoint slide decks referred to in the guidance document.
Presentations & Publications	<a href="#">020106</a> ; <a href="#">020107</a> ; and <a href="#">020108</a> ; Example SSI workshop materials	SSI, 2019	These subfolders includes examples of workshop schedules and associated slide decks for workshops in Malawi (WHH Malawi internal training workshop) ( <a href="#">020106</a> ), Nepal (combined orientation and 'visioning' workshop) ( <a href="#">020107</a> ) and Somaliland (national level stakeholder orientation) ( <a href="#">020108</a> ).
Toolkit	<a href="#">020102: Sector Strengthening Programme Design Toolkit</a>	WaterAid, 2018	A toolkit setting out nine participatory exercises aimed to help design a sector strengthening programme, however some of the facilitation techniques would be relevant as tools to identify WASH system challenges as part of an orientation process.
Related Topics		SSI	Introduction to WASH Systems Concepts Broad Examples and Entry Points for Systems Strengthening Assessing the Strength of Systems at the Local Level Supporting Local Governments in Developing WASH Plans

In addition to the above, [020105](#) provides further resources.

## ADVOCATING FOR INVESTING AND COLLABORATING IN SYSTEMS STRENGTHENING

0202

### A. Overview of the topic

Taking a systems approach requires the understanding, commitment and support of a range of stakeholders. For example, donors need to move beyond only short-term ‘outputs’ (e.g. new access), to also support sustainable outcomes, which are often harder to measure. NGOs’ marketing departments need to be able (and willing) to articulate the need for in their fundraising activities. Governments need to be committed to addressing the risks and bottlenecks to sustainable services at and be ready to collaborate with supporting organisations to achieve these outcomes. Governments also need to be ready to allocate public funding not only to politically appealing infrastructure investments, but also to , and other investments to strengthen the wider , which are critical for WASH service quality and sustainability. Support organisations need to be ready to collaborate with other, sometimes ‘competing’ organisations in the sector, not only focusing on their own projects but to work together to create an effective WASH environment and to achieve scale in systems strengthening. See Topic 0502 for more information and guidance on inter-agency collaboration.

But how can supporting organisations help to raise this understanding and stimulate this commitment? This topic brief provides a short overview of key target groups for advocacy on systems strengthening, example messages and objectives, and suggestions on processes and approaches for undertaking such advocacy work.

### B. Common process and tips on what to consider

Example messages and objectives are provided in **Table 01**. Additionally, advocacy efforts should consider:

- Advocacy is more credible if it is based on robust evidence and data. Evidence of the (under) performance of the system (e.g. ODF slippage rates or the number of people losing access each year due to dysfunctional hardware) can be gained from field surveys (see Topic 0303) or national statistics. Evidence on the state of the system can be obtained by undertaking system diagnosis activities (e.g. building block checklists (Topic 0302), political economy analyses (Topic 0301), undertaking a life cycle cost analyses (Topic 0304) or from existing sector studies.
- An understanding of the WASH system, its performance, financing and budget allocations, and the drivers of why it works as it does (see Topic 0301), will help to identify potential . These may be thematic areas to advocate on (e.g. the need for government to invest in direct support costs), or potentially the stakeholder groups and individuals to focus on. It may highlight that a ‘personal influence’ approach, e.g. through informal exchanges and ongoing networking may be most effective; having good personal relations and credibility makes a difference.
- Once advocacy objectives and target groups are defined, messages need to be ‘packaged’ for maximum effectiveness. Data needs to be put into a digestible format and tailored to the advocacy target group. Be constructive: showcase practical examples/good practices of how stakeholders can address issues.
- Depending on the target group, advocacy may be more effective when undertaken jointly with other organisations to put forward a ‘unified’ voice. Utilise existing national and local networks and platforms (e.g. [Agenda for Change](#) or government-led exchange/learning fora) and consider engaging with the platforms of other relevant sectors (health, education, etc.) to build linkages.
- Systems strengthening requires a close and productive relationship with government counterparts, which can either enable or complicate advocacy efforts. Advocacy could be undertaken either directly by the supporting organisation, or indirectly through engaging civil society organisations or media networks.
- Advocacy is never “finished”; staff turnover requires frequent refreshment and ongoing networking.

## C. Further resources (papers, tools, good practice examples):

**Table 01:** Examples of objectives, messages and means for advocating systems strengthening to target groups.

Target	Government / Local Authorities	Donors / Fundraising Departments	Implementing Organisations / Potential Partners
<b>Objectives</b>	<ul style="list-style-type: none"> <li>Integrate importance of WASH systems in policies</li> <li>Support for systems strengthening activities and resources to fund them</li> <li>Allocate funding for non-infrastructure investments</li> </ul>	<ul style="list-style-type: none"> <li>Support systems strengthening financially (e.g. longer-term funding, flexible/adaptive programming)</li> <li>Allocate funding for non-infrastructure investments</li> <li>Recognise own role in the national WASH system and influence of what they fund/do not fund</li> </ul>	<ul style="list-style-type: none"> <li>Build alliances for systems strengthening</li> <li>Collectively shift paradigm</li> <li>Institutionalise systems strengthening within own organisation</li> <li>Pilot, test and learn about innovation in system strengthening and share lessons</li> </ul>
<b>Examples of messages</b>	Orientate staff in your ministry or department to the importance of systems thinking.	Include a component on systems strengthening in your call for proposals and make it a prerequisite for funding.	Identify and engage in local / national exchange platforms. Find commonalities for joint engagements and learning.
<b>Example means of conveying messages / actions</b>	Invite staff of respective governments and local authorities (regularly) to SSI workshops / events.	Country cases; evidence-based data (e.g. statistics, reports, qualitative and quantitative data)	National / local exchange forums (e.g. SWA); become a champion / multiplier / trainer for systems strengthening. Case studies with learning

There are various advocacy resources in the sector which are general to WASH (e.g. on equity issues, human rights to water and sanitation, etc.), but there is much less on advocacy for systems strengthening specifically. The tools provided below include guidance generally on advocacy and communications, together with examples of WHH's own SSI advocacy strategy. Guidance on advocacy is also being developed by [Agenda for Change](#), which is expected to be available to members in 2020.

Type	Tool / Resource	Author, Date	Description
Video	<a href="#">What if...?</a>	IRC, 2012	A short video that can be used for advocacy purposes. It asks what if resources from all projects in a district were brought together? What if in addition to constructing water systems we also planned and financed for its operation and maintenance?
Presentation	<a href="#">020201: Advocacy &amp; Communications Strategy: Sustainable Services Initiative</a>	GTO	A powerpoint presentation providing a wide range of useful information for communications and advocacy, including a target matrix (Donors, NGOs/Practitioners and Governments) for the SSI and its partners, the key steps for change as well as organisations/ initiatives that complement SSI's work.
Tool	<a href="#">020202: Target Audience Analysis Tool</a>	IRC, 2016	A tool that guides users through a structured process for identifying advocacy targets, prioritising them, and defining pathways to influencing. Applying the tool results in a granular understanding of target audiences, which enables individual decision-makers and influencers to be identified as well as opportunities to leverage existing relationships and connections.
Tool	<a href="#">020203: Communications Strategy Development Tool</a>	IRC, 2013	A tool that guides the user through the process of developing a communications strategy. The process involves some preparatory work, some workshop time and some follow-up time to finalise the strategy.
Publication	<a href="#">020204: Global Advocacy for Water, Sanitation, and Hygiene: A Resource Guide</a>	WASH Advocates, 2015	An 11-page resource guide for WASH practitioners looking to pursue and promote WASH advocacy efforts. It provides recent reports, manuals, strategies, examples of advocacy efforts, and other resources that cover WASH and global advocacy.
Podcast	<a href="#">The means to an end – advocacy and influencing</a>	IRC, 2019	A short introductory podcast explaining what advocacy and influencing are and why they are important to WASH systems strengthening.
Related Topics		SSI, 2019 SSI SSI SSI SSI	Orienting Staff and Local Authorities to Sustainability Issues Analysing the Political Economy Around WASH Services Assessing the Strength of Systems at the Local Level Assessing the WASH Context (District/County/Woreda) Sector Learning, Dissemination and Upscaling

## PROJECT DESIGN OR ADAPTATION TO INCLUDE SYSTEMS STRENGTHENING

# 0203

### A. Overview of the topic

Taking a systems approach in programming implies a shift in the ‘business as usual’ approaches of WASH project design and delivery. It requires moving beyond the direct delivery of infrastructure and training of community service providers, to actions that strengthen the wider [system](#) which enable and sustain such community-level WASH services. This topic brief provides some guidance on aspects to consider when designing a WASH programme, or adapting an existing programme, to take a systems approach.

### B. Common process and tips on what to consider

When designing a WASH programme to include systems components, consider:

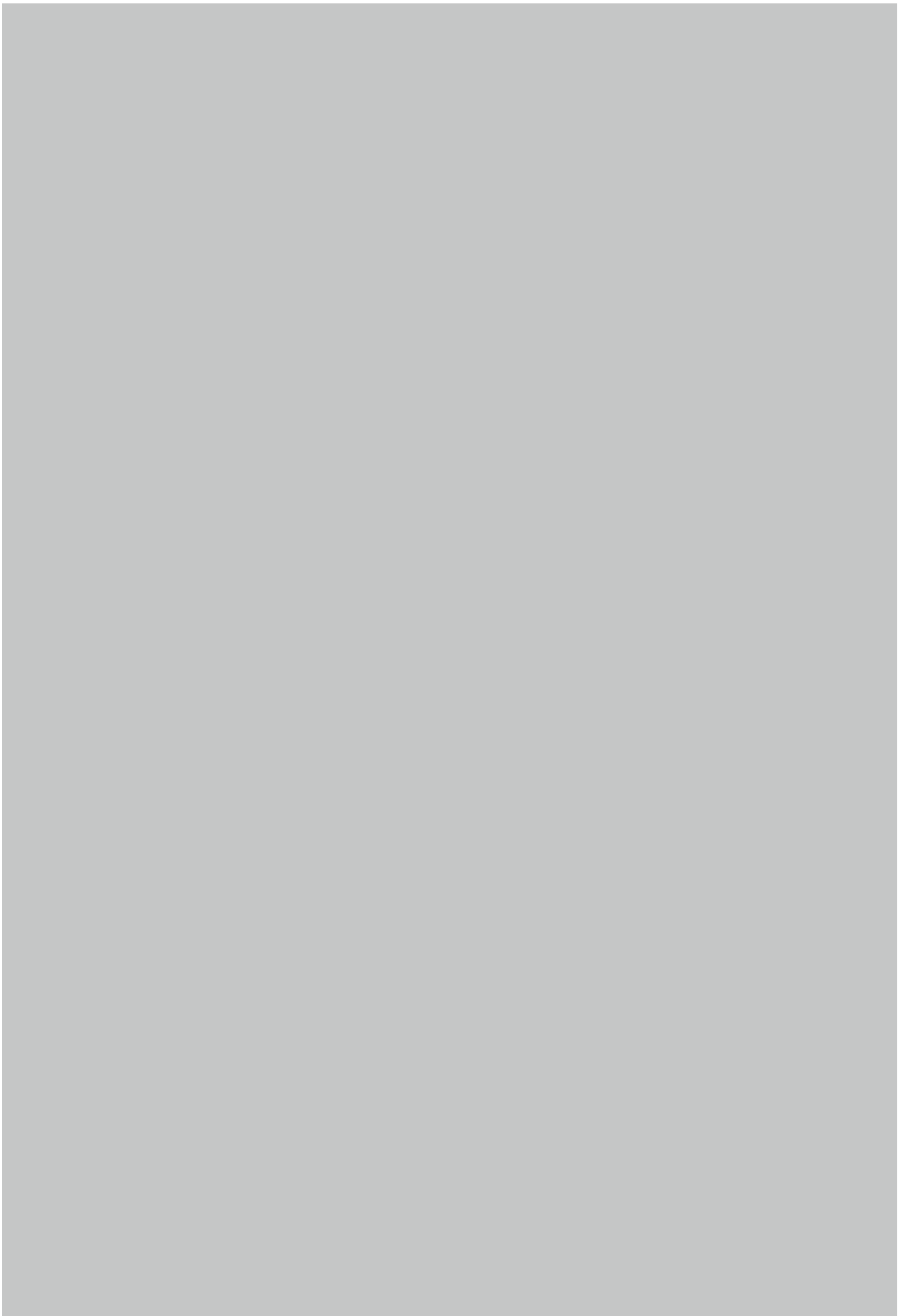
- **Problem identification:** To design an intervention that seeks to strengthen the system, it is important to first understand the current status of the system, how and why it works as it does, and what ‘levers’ there may be which organisations can use to impart change in the system. This implies undertaking more than just a ‘beneficiary needs assessment’ to inform programme design. Topic Briefs 0301 and 0302 outline the process of systems analysis at the local levels. Information on the status of the wider system can also be derived from secondary sources, such as sector performance and sustainability assessments.
- **Collaborative design:** Wherever possible, engage the key stakeholders (for example the local and national authorities) in the systems analysis work, and in defining key [activities](#). See [030206](#) for examples of participatory workshop activities that can be used for systems analysis and programme design. This initial collaboration can increase the level of commitment and ownership these stakeholders have on the programme. If possible, this early engagement can help to identify where government can contribute in terms of resources or personnel, and it can help align the programme activities with their upcoming annual budgets and workplans (or vice versa), and with their local development plans.
- **Defining entry points:** The systems analysis may present issues across different [sectors](#), and at different ‘levels’ within the system. No single organisation can address all aspects of the sector. An assessment should be made as to which aspects your organisation has expertise and added value to address, which may require in-sourcing expertise (e.g. consultancies), which may be possible to support through an implementing partner, and which may require strategic partnerships with other sector actors, who are better placed to work at such levels. In short, don’t feel obliged to design a programme which covers every building block and every level in the system!
- **Skillsets and partnerships:** Whilst the programme may include aspects of ‘conventional’ WASH programming (e.g. infrastructure development/rehabilitation, community level trainings and behaviour change activities), it will potentially also include activities which are less common within NGO WASH team experiences. For example, skills in local government planning and budgeting processes, information and knowledge management, monitoring systems, private sector development, etc. It may also require expertise in advocacy and communication. This should be considered when developing the organigram and considering both implementing and strategic partnerships.
- **Implementation modalities:** Wherever possible, design the implementation approach in a way whereby the delivery of the project itself can strengthen permanent, local capacities. For example, by procuring parts and maintenance services locally (not nationally); by utilising government extension workers or using existing government-recognised community volunteers and committees (rather than creating new project-specific ones) to deliver activities and to do ongoing monitoring; by aligning project baseline and monitoring activities to government monitoring systems (rather than having parallel monitoring by NGOs). In certain contexts, it may be appropriate to run the project from within government – for example by basing key project staff within the government offices, and co-delivering the activities based on an agreed workplan and budget. If appropriate, the programme could be designed with a governance arrangement which involves national government and/or other key sector stakeholders – this could help boost sector ownership, and increase prospects for upscaling.



- **Design features:** Systems change takes time, and may not follow a linear path. As such, programmes should ideally be designed with multi-year timeframes, and designed as adaptive, allowing the focus of systems strengthening to evolve as needs arise and as opportunities occur. In this, whilst clear targets can be set for ‘conventional’ WASH activities such as infrastructural access, trainings and behaviour change work, the targets for systems strengthening should be more flexible, and allowed to be reviewed and potentially modified periodically.
- **Key result areas:** Example Theory of Change’s for systems strengthening are presented in [010203](#), and [010204](#). Results could be focussed around different ‘levels’ of the system, for example: strengthening user demand and service provider performance; strengthening capacities and processes at the service authority (e.g. district) level; and strengthening and influencing sector-level policy and frameworks.
- **Defining activities:** There is no fixed list of activities for strengthening systems. Examples of actions which could be taken at different levels of the system, and across the different building blocks, are presented in [010204](#), and the topic briefs 0405, 0406 and 0407.
- **Designing for scale:** Whilst efforts of organisations may often be on strengthening at the [010203](#) level, the programme should include actions to help bring examples and learning from this level up to the wider sector, and using strategic partnerships (e.g. with other [Agenda for Change](#) members present in country) to aid in advocacy and upscaling (see 0502).
- **Relevant indicators:** There are no fixed lists of activities, milestones or indicators for systems strengthening. Whilst ‘conventional’ WASH activities will likely have ‘conventional’ indicators of increased service access or improved knowledge and practice, systems indicators would likely include indicators on system performance, and on the strength of the system itself. Examples of systems indicators could include: progressive improvements in the scores of building block assessments (see 0302); the ‘form’ of the system, such as the presence of a WASH coordination platform, monitoring system or strategic plan at the district level; the ‘function’ of the system, such as the percentage of investments in a district which follow the WASH plan, or percentage of having a routine monitoring visit from the service authority in the last 6 months. Indicators could also relate to performance of the service providers. For example, Water for People’s Sustainable Services Monitoring Framework ([020302](#)) has indicators relating to service provider and service authority performance, which they track through time, and use to help define when the system is sufficiently robust to reduce their level of support to that particular district. See 0501 for further guidance on indicators.

### C. Resources (papers, tools, good practice examples)

Type	Tool / Resource	Author, Date	Description
Toolbox	<a href="#">030206</a> : Sector Strengthening Programme Design Toolkit	WaterAid 2018	This toolkit includes a series of participatory exercises to be used in a workshop with service authorities and other system actors, helping to define weaknesses in the WASH system, and to develop activities to address them.
Publication	<a href="#">010204</a> : Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis (2019)	A paper written of experiences of Agenda for Change members applying systems approaches in various contexts. It includes a chapter with examples of systems strengthening activities across the building blocks.
Tool	<a href="#">020302</a> Monitoring Framework	Water for People	A WASH monitoring framework that includes a sustainable service checklist that can be used for ideas on relevant indicators for systems strength.
Related topics		SSI, 2019 SSI SSI SSI SSI SSI	Entry points for systems strengthening Building Blocks Analysis Assessing the WASH context Water resource management Asset management Post Implementation Monitoring



## ANALYSING THE POLITICAL ECONOMY AROUND WASH SERVICES

0301

### A. Overview of the topic

WASH services do not exist or function in isolation. They are inherently political and decisions about ‘who gets what’ are often influenced by powerful decision-makers and not always based on need. WASH services sit within a broader system comprised of a variety of elements including people, laws, political and financial institutions, private companies, technologies, markets and regulations ( – refer to Topic 0102). These elements are constantly interacting, both formally and informally, and responding to different sets of incentives, sanctions and influences. is a branch of **social science** that studies the relationships between individuals and society and between markets and the state, using different tools and methods. Political economy analysis (PEA) is about studying and understanding how a sector or sub-sector – the WASH sector for example – is managed or governed, considering both political and economic factors. It forces us to ask questions about the relationship between different actors in the system and the access to, and use of, resources.

Applying PEA tools and thinking is an important part of understanding how things work – or do not work – in the WASH sector. Only focussing on the ignores the human and political elements, which are critical factors in how resources are allocated. PEA is a useful way of gaining insights into and possible entry points (refer to Topic 0103) to make improvements. PEA forms part of the broader mapping (refer to Topic 0302) or context analysis (refer to Topic 0303), which is a vital component of any initiative. By investing up-front time and resources to understand the political economy – and some on-going re-assessments along the way – we can increase the sustainability of our WASH interventions. For example, from a PEA, we may find that there is little or no focus on supporting local government capacity and WASH committees as , which is undermining the long-term sustainability of services. Through these insights, we can make different choices about programme design and adaptations during implementation that can help to bridge these gaps, for instance, by convincing and supporting local politicians and local government staff to allocate greater long-term funding to WASH.

### B. Common process and tips on what to consider

There are a number of ‘levels’ (refer to Topic 0102) at which a PEA can be applied depending on what the focus of an inquiry may be. It is therefore important to decide what we are looking at; these can vary from assessing an entire country, to only a particular sector (for example, agriculture or WASH), or a specific topic such as maintenance of rural water schemes. For support organisations, it is likely that PEA is applied at this more topic-specific or localised level. However, it is very important to remember that even for localised issues, there are often linkages with higher-level power-structures, policies and financing that can have a big impact. In general, a PEA is applied to a specific topic and follows several questions or steps to work through as a process (WaterAid PEA Toolkit, 030101); taking the example of support for maintenance services, these steps would include:

- 1. What is the issue we want to change?** Define and describe the issue and the change that we want to bring about; for example, consistently low functionality of handpumps and improving this by more reliable and effective maintenance services.
- 2. What is the situation now?** Capture and describe the key political economy features such as who is currently involved in maintenance, their capacity to provide maintenance, if and how this is financed and what policies are in place or lacking; look at indirectly related issues, such as the impact of donor-funding which may undermine attempts to formalise maintenance by simply rehabilitating or building new schemes.
- 3. Why are things this way?** Analyse the most important political economy features by defining each main interests; for example, the power dynamics between national government and donors, the incentives and possibilities for benefitting from corruption from new construction, and how ‘electioneering’ affects efforts to develop effective maintenance programmes.

A PEA is not just a one-off exercise; PEA tools are useful, but it is important to regularly revisit the insights gained and encourage programme staff and management to keep asking critical (but not judgemental) questions as they work.

## C. Resources (papers, tools, good practice examples)

# 0301

Political economy analysis has been recognised for some time as an important approach for improving insights. There are various tools and resources available to carry out a PEA, but they generally require some degree of skill, experience and analysis and it is likely that support organisations will require outside expertise to help, for example from an expert consultant or staff from regional or headquarter office.

Major organisations such as the World Bank and DFID (of the UK) encourage the use of PEA tools and methods. The most comprehensive – and relevant – PEA tools are found in the WaterAid PEA Toolkit (030101), which is the first resource identified in the table below. The WaterAid tool is one of the ‘lighter’ versions and is designed to be applied within realistic timeframes and resources. When applying a PEA tool, it is vital to be clear and define the focus or boundary of your issue first – do not try and analyse everything. It may be that your boundary for analysis is at the local level only; but do not forget that there are often ‘vertical’ links to national policy and politics.

Type	Tool / Resource	Author, Date	Description
Toolkit	030101: Political Economy Analysis Toolkit	WaterAid	A toolkit consisting of four tools (Country Strategy, Sector Strategy, Tactical, and Everyday) that provide a structured approach for analysing how change happens; from the national to the local level. The tactical level component of the tool will probably be the most useful for support organisation country staff.
Publication	030106: The Beginner's Guide to Political Economy Analysis	National School of Government International and UK Aid, 2017	A 13-page guide focusing on why we conduct a PEA, what kinds of issues to include in a PEA, how to make sense of different varieties of PEA and the tools that can help you conduct a PEA.
Publication / Toolkit	030104: Tools for Institutional, Political, and Social Analysis of Policy Reform: A Sourcebook for Development Practitioners	World Bank, 2007	A comprehensive 292-page sourcebook that helps readers to better understand the impact of policy reform by providing a framework and tools for focusing policy analysis on political economy, power relations and social dynamics. You do not need to read the whole sourcebook and can instead focus on specific topics relevant to your work.
Tool	030103: SSI Guidance Note: How to Carry Out a Stakeholder Analysis	SSI, 2017	Guidance note outlining suggestions for how WHH country offices can undertake a ‘light touch’ stakeholder analysis. Covers the key questions that need to be addressed, details a brief methodology and provides important information for the analysis and presentation of findings.
PowerPoint	030105: Using Network Analysis to Map Alignment of Priorities Toward Collective Action	USAID, 2018	A 26-slide PowerPoint presentation detailing USAID’s approach to network analysis – a method to map what already exists (i.e. informal working groups), understand how facilitation and process can lead to alignment/consensus and analyse how the network aligns priorities toward collective action(s).
Publication	030102: Political Economy Analysis for Water, Sanitation and Hygiene (WASH) Service Delivery	Overseas Development Institute, 2012	A 4-page briefing note based on research conducted by the Overseas Development Institute in Vietnam and Sierra Leone and provides several recommendations for practitioners using PEA in the WASH sector.
Publication	030107: Putting Gender In Political Economy Analysis: Why it Matters and How to do it	Gender and Development Network, 2018	A 30-page guidance note helps practitioners to integrate an understanding of gender and its social, economic and political effects into each stage of a PEA.
Podcast	Using Network Analysis to Understand and Strengthen WASH Systems	USAID – SWS Learning Partnership, 2018	A podcast introducing network analysis and early lessons learned from analyses conducted in Ethiopia, Uganda, and Cambodia. Such analyses can be used to better understand the complex interactions and interdependence of actors in a local WASH system.
Related Topics		SSI SSI SSI SSI	An Introduction to the SSI-Toolbox Introducing WASH Systems Concepts Assessing the Strength of Systems at the Local Level Assessing the WASH Context Within a District

## ASSESSING THE STRENGTH OF SYSTEMS AT THE LOCAL LEVEL

### A. Overview of the topic

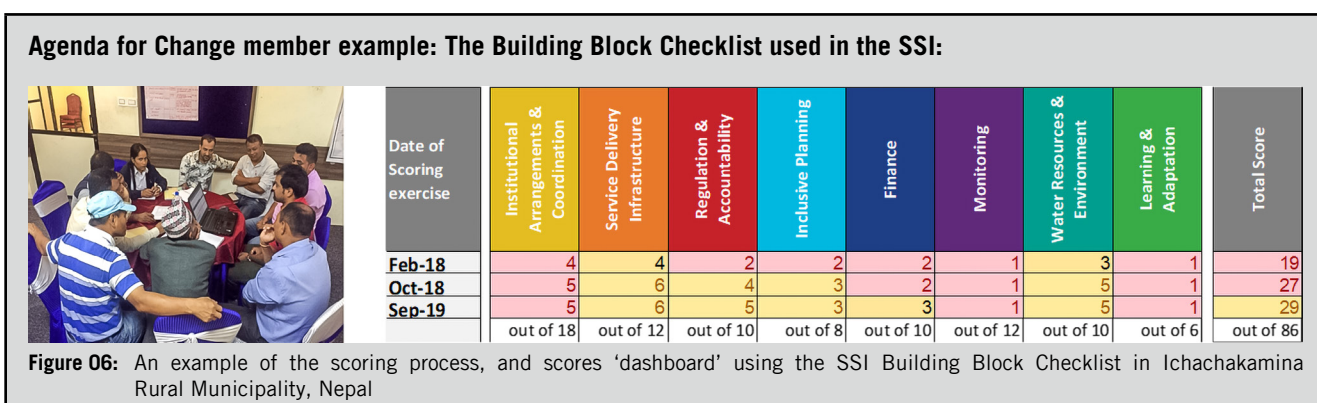
To strengthen a system, it is first necessary to understand it. Developing programmes with a poor understanding of the wider system in which the interventions will be made is a risk to the long-term sustainability of WASH services. By undertaking an assessment of the WASH system, we can identify the gaps, weaknesses and opportunities that may not be picked up by a traditional WASH needs assessment. Issues can be pinpointed, leverage points for positive change identified, and joint action plans can be made on how to move forward. When systems and capacity assessments are undertaken in a participatory and collaborative manner with local stakeholders in that system, it can help stakeholders to reflect on challenges that they have not previously considered, and gain consensus on how to address them.

Examples of quickly analysing a WASH system include undertaking a **BBs** assessment at the local level (e.g., district or equivalent), and subsequently conducting a more detailed **capacity** assessment and developing action plans to address highlighted issues. There are also other ways of assessing a local system, for example, looking at the more 'dynamic' drivers of the WASH system through a political economy analysis (PEA) (refer to Topic: 0301). This is important, as PEA can help to understand why the system is in the state that it is in, and where effective **drivers** for systems change exist.

### B. Common process and tips on what to consider

Undertaking a BB analysis can be done by an individual, but in the SSI's experience, it is more effective when undertaken as part of a multi-stakeholder workshop, where participants analyse what is, and what is not in place, can discuss their experiences and develop jointly agreed action plans. Wherever possible, a BB analysis should be undertaken jointly with the local authority, as this helps to build consensus and trust and open communication channels; it also avoids perceptions of an NGO 'criticising government weaknesses'. General tips on undertaking such assessments include:

- Checklists, such as the one developed by the SSI (030201) are helpful and structured around the BBs, where users mark down what is/is not in place at the service authority and **local** levels. Checklists generally describe an ideal state or what 'should be in place' to ensure sustainable services, but they may not be specific to any country. Such checklists, therefore, need to be adapted to fit the context or a specific sub-sector (e.g., if we are assessing WASH in schools). In contrast, the WaterAid Sector Strengthening Design Toolbox (030206) uses participatory tools for assessment of the BBs without using structured checklists.
- Where using a BB checklist, the actual assessment, including scoring, should be done by working in groups and be peer-reviewed to ensure accuracy and remove bias. Adding narrative comments to explain numeric scoring is helpful, as this can be used during peer review or referred to during future re-scoping exercises.
- Assessments usually flag many challenges, which may initially be overwhelming. Remember that when designing a programme, your organisation does not need to address every issue at once and no single organisation or programme will be able to address all issues; collective action is a key principle of **systems**, so it is important to be realistic and identify which gaps or challenges can be addressed, by who, how and when.
- For local capacity assessments (and efforts to strengthen capacities), remember 'capacities' are not limited to technical skills. It is important to consider factors such as human resources issues, equipment, recurrent budgets, access and management of information.
- Ideally, local authorities should take ownership of both the process and the outcomes of such assessments. Action plans should be jointly developed on how to address the issues, which again should be championed by the authorities, with support organisations seen as playing a supporting not leading role.
- Assessments should be re-scored periodically. This can serve as a (very) basic monitoring process to identify progress on systems strengthening and local government strengthening initiatives and will help to ensure stakeholder commitment and focus on addressing issues.



Various organisations involved in systems strengthening have developed approaches and tools to assess the strength of WASH systems at different levels. While organisations such as UNICEF and SWA look more at the sector or national level using tools such as [WASH-BAT](#) and the [WASH Enabling Environment Toolkit](#), the SSI primarily focuses the boundary of analysis of the WASH system at the district (or equivalent) level. The resources outlined below focus mainly at this level of intervention. More complex tools for analysing interfaces between actors and factors within the WASH system are included in [030207](#).

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">030208</a> : SSI Guidance note on undertaking a BB assessment	SSI, 2018	A 5-page document that outlines how workshop facilitators can use the SSI Building Blocks Checklist tool, both in terms of tips for scoring, and how to facilitate such a workshop session.
Tool	<a href="#">030201</a> and <a href="#">030202</a> : SSI Building Block Checklist	SSI, 2018/19	A checklist for assessing the extent to which each BB of a WASH system is in place – it contains a series of questions per BB ‘tab’ and ‘dashboard’ showing summary scores. See <a href="#">030208</a> for how guidance on how to use it. <a href="#">030201</a> is the latest checklist that is generally used, and <a href="#">030202</a> is an example of a filled-out older version of the checklist. The checklist is normally applied in a workshop over 0.5–1 day. External facilitation is generally helpful.
Toolbox	<a href="#">030206</a> : Sector Strengthening Programme Design Toolkit	WaterAid 2018	This toolkit includes a series of participatory exercises to be used in a workshop with service authorities and other system actors, helping to define weaknesses in the WASH system, and to develop activities to address them.
Publication	<a href="#">030204</a> : Strengthening Sanitation & Hygiene in WASH Systems	SSI, 2019	This paper includes a list of proposed adaptations to checklists used in the sector, to better represent sanitation and hygiene. It is aligned around the SSI’s nine BBs.
Publication	<a href="#">010302</a> : Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis, 2019	This paper has a section on WASH systems analysis, focussing at the local level.
Related Topics		SSI SSI SSI SSI	Orientating Staff and Local Authorities on Sustainability Issues Analysing the Political Economy Around WASH Services Analysing the LCC of WASH Service and Determining Tariffs Supporting Local Governments in Developing WASH Plans.

In addition to the above, [030207](#) provides further tools and publications.

## ASSESSING THE WASH CONTEXT

0303

### A. Overview of the topic

Reliable and regularly updated data information on the status of the sustainability is critical for effective planning, decision making and management of WASH services. Evidence-based planning allows needs to be better understood across a locality to prioritise resources and to serve as the basis for more objective and publicly accountable planning and decision-making. We focus on the ‘district’ level as the appropriate unit of scale for WASH service delivery. Undertaking assessments also helps to form a baseline, against which, implementation of WASH plans, and programmes can be monitored, as well as to structure WASH maintenance and management services. This topic brief summarises common assessments to be done at the district level.

### B. Common process and tips on what to consider

Topics to be assessed will vary by context; however, the following are key to inform WASH plans:

	Assets	Water Resources & Environment	Service Levels	Service Providers
What ?	<ul style="list-style-type: none"> <li>■ The physical status and age of existing public WASH infrastructure</li> <li>■ Requirements for rehabilitation or new infrastructure to achieve universal access</li> </ul>	<ul style="list-style-type: none"> <li>■ Available water resources (e.g., demand, quality, quantity, ownership and conflicts)</li> <li>■ Where relevant, to assess how faecal sludge is managed</li> </ul>	<ul style="list-style-type: none"> <li>■ Access to services and service quality</li> <li>■ WASH demand, attitudes and practices</li> <li>■ WASH services in households, schools, clinics</li> </ul>	<ul style="list-style-type: none"> <li>■ Existence, capacity and performance of and key community stakeholders (e.g. cultural leaders, hygiene promoters)</li> </ul>
Why?	<ul style="list-style-type: none"> <li>■ To identify required capital and capital maintenance investments to achieve universal access</li> <li>■ To structure maintenance services and establish a baseline</li> </ul>	<ul style="list-style-type: none"> <li>■ To assess demands and/or risks for water resources in planning processes</li> <li>■ To understand source potential, to consider in plans</li> <li>■ To create an inventory of sources and establish a baseline</li> </ul>	<ul style="list-style-type: none"> <li>■ To understand WASH needs and prioritise investments</li> <li>■ To inform approaches for behaviour change</li> <li>■ To establish a baseline</li> </ul>	<ul style="list-style-type: none"> <li>■ To develop a tailored approach to market strengthening and capacity building efforts, and to establish a baseline</li> </ul>
Example methods	<ul style="list-style-type: none"> <li>■ Asset inventory surveys (exhaustive sampling) (see Topic 0403)</li> <li>■ Engineering assessments for existing and new schemes</li> </ul>	<ul style="list-style-type: none"> <li>■ Water source quality/yield/ownership survey</li> <li>■ Desk review of the water resources context</li> <li>■ Shit Flow Diagram</li> </ul>	<ul style="list-style-type: none"> <li>■ Household survey</li> <li>■ Focus group discussions of service users</li> <li>■ Secondary data (e.g. DHS/MICs)</li> <li>■ School/clinic WASH survey</li> </ul>	<ul style="list-style-type: none"> <li>■ WASH service provider performance and capacity survey</li> <li>■ Supply chain assessments</li> </ul>

Additional studies may be needed depending on context. Aspects to consider in the assessment process:

- Involve the and permanent stakeholders in the process, to build capacity (e.g., for future updating of the data) and increase ownership of the data collected
- Ensure alignment of the surveys with national sector monitoring frameworks (indicators, definitions etc.), and consider how the data will feed into sector monitoring datasets. Use SDG service levels.
- Where possible, include the entire district as the to undertake assessments and not only parts where a project is working to support district-wide planning.
- Consider how the service authority may update the data in the future: consider the suitability of high-tech data collection tools, and if used, download data into a usable format to handover to the authority.

## C. Resources (papers, tools, good practice examples)

# 0303

The Agenda for Change *Roadmap for Universal Access to Sustainable WASH Services* (030301) provides a detailed overview of the assessment phase of developing local WASH plans. Examples of survey tools of other organisations are included in the table below.

Type	Tool / Resource	Author, Date	Description
Publication	030301: Agenda For Change: A District Level Roadmap for Universal Access to Sustainable Services	Tillett & Smits, 2017	A 30-page document providing a generic (non-country specific) road-map for applying Agenda for Change principles and practices at the district level. Specific sections of the document focus on the assessment of the WASH context.
Presentation	030302: Rural Municipality-Wide Approach	SSI, 2018	A summary of the WASH planning initiative in WHH Nepal, presented to sector stakeholders. Particularly relevant slides are slides 14–18.
Tool	030303: Rulindo District Asset Registry Tool	Water for People, 2017	The asset registry tool, developed for Rwanda, helps to identify, catalogue, classify all water schemes within a district, their current status and age, to identify and prioritise and forecast capital maintenance requirements. 030304 is a PowerPoint presentation on Water for People's experience with the tool in Rwanda.
Tool	030305: Water Service Provider Performance & Capacity Assessment Checklist	World Bank, 2017	A performance and capacity scoring tool developed for Tanzania's for rural water supply service providers. It helps 'rank' service providers (it is good to incentivise competitive progress between service providers) and enables the service providers to identify what they are 'not' doing – thus providing guidance and aspirational targets. It also helps the service authority to provide tailored support and follow-up to service providers.
Tool	040503: Faecal Waste Flow Calculator	IRC	A tool that determines faecal waste volumes along the entire sanitation service chain, allowing users to determine where the biggest losses are and where interventions should be targeted. Issues that are harder to quantify, such as the existence of policies and legislation, are captured with the use of score cards. 040504 is an example of a filled in version of the tool.
Publication	JMP further reading and examples of indicators relating to SDG monitoring for WASH services	WHO/UNICEF	A set of resources that include suggested core indicators, and further information on monitoring across WASH sub-sectors. They can be used to provide ideas on how surveys can align with the SDGs definitions and service level ladders; however, it is important to align with national indicators, in cases where these global indicators have been localised. 030306 and 030307 provide core indicators and further information for WASH in schools and health care facilities. Important monitoring-relevant information is available in the JMP for <ul style="list-style-type: none"> <li>■ drinking water;</li> <li>■ sanitation;</li> <li>■ hygiene; and</li> <li>■ inequalities.</li> </ul>
Tool	Digital Data Gathering (DDG)	AkvoFlow Mwater	Akvo Flow and Mwater are tools for collecting, evaluating and displaying of geographically referenced data. In most cases DDG-tools are composed of an android mobile app and an online web-based platform.
Publication	Water Resources Assessment	SSWM	A webpage that provides a concise overview of water resources assessment, which details why it is important, key components and important point to consider when undertaking water resources assessment. Links to several more detailed publications on water resources assessments are included.



## ANALYSING THE LIFE CYCLE COSTS OF WASH SERVICES

# 0304

### A. Overview of the topic

Many sustainability failures associated with WASH can be traced back to a poor – or completely absent – understanding and funding of the different costs associated with ensuring that a WASH service lasts indefinitely. Those investing in WASH often only focus on initial investments (e.g. constructing new water schemes or triggering and certification of ODF), without considering the ongoing recurrent costs of delivering and supporting services.

(LCC) components comprise of :

- **Capital Expenditure (CapEx)** covering the initial investment e.g. in hardware or ODF campaign;
- **Operational Expenditure (OpEx)** for ongoing running costs of a service (e.g. fuel, labour, chemicals, etc.);
- **Capital Maintenance Expenditure (CapManEx)** refers to the occasional large maintenance costs for renewal, replacement and rehabilitation of a hardware or service expansion to new users;
- **External Support (ExpDS)** are the critical (and often neglected) costs of ongoing external support, training and monitoring to WASH services – often borne by service authorities;
- **External Sector Expenditure (ExpIDS)** covers wider sector costs such as running a Ministry of Water or Sanitation and regulatory activities;
- **Cost of Capital (CoC)** refers to repayment of loans, bank interest etc.

Life cycle cost components are financed through different sources, commonly referred to as the three T's: **Taxes** raised by government and redistributed via public financing; **Tariffs** generated by service users; and **Transfers** of external aid and grant funding from donors, NGOs and charities. Implementing organisations can support service authorities and communities to calculate life cycle costs, helping to determine tariffs, select appropriate technology options, and to cost strategic WASH plans.

### B. Common process and tips on what to consider

Determining the LCCs of delivering WASH services is a comprehensive process that can be done at the service provider, service authority (e.g. across a district) or even sector level.

- At the service provider level, it involves calculating OpEx and CapEx, and projecting these over time; this data can then be used to help determine the tariff levels<sup>1</sup> required and to forecast any subsidies that are needed, such as cost-sharing of future capital investments.
- For an entire service authority (e.g. to develop a community water supply), a life cycle cost approach (LCCA) starts with creating an asset inventory (refer to Topic 0403) of all WASH facilities in the specified area and an assessment of new infrastructure required. This provides CapEx costs and by using average unit costs, the asset inventory data can be converted into CapManEx costs that can be projected over time. The second step is to collect data, either from existing sources, or key informant interviews, focus group discussions and household surveys (refer to Topic 0303) to provide data to calculate the ExpDS required over time to determine the true costs of service delivery and an indication of the gap between existing financing sources and the costs for different desired service levels.
- It is useful to determine what ExpDS costs should be<sup>2</sup>, and compare these with what is actually budgeted by the service authority. This can serve as a basis for advocacy.
- Implementing organisations should work with service authorities to ensure they take ownership of the process and outcomes of the LCC assessment, playing a supportive and not a leadership role.
- Remember to include important 'software' costs in LCCA (e.g. to promote behaviour change and reinforce them over time) and advocate for budget allocations for neglected areas (e.g. ExpDS).

<sup>1</sup> It is also important to be aware of national guidelines on tariff setting, tariff ceilings and subsidies

<sup>2</sup> E. g. how often should service providers be monitored, frequency of water quality testing, of district WASH coordination meetings, etc – and how much would this cost annually to do across all communities?

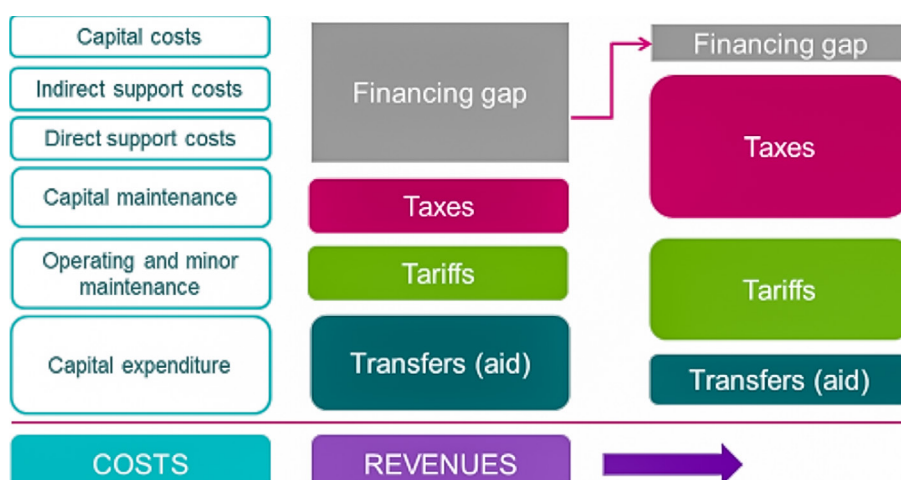


Figure 07: WASH Financing – Matching Costs with Revenue (adapted from Public Finance for WASH, 2015)

A wide variety of resources are available to help you conduct an LCCA or analyse and calculate tariffs. IRC has done considerable work on LCCA, with [introductory videos](#), practitioner guides ([030403](#)), [online training courses](#), and simple to use tools such as [WASHCost](#) and [030401](#), IRC’s Costing and Budgeting Tools enable you to undertake LCCAs and calculate the gap between requirements and current revenues for LCCs. Guidance has also been produced by Aguaconsult, Water for People and others in assessing and forecasting LCCs for the objective of developing district WASH Plans (refer to Topic 0305) and helping to calculate tariffs for rural water supply.

Type	Tool / Resource	Author, Date	Description
Video	<a href="#">The life-cycle cost approach (LCCA) bringing us closer to WASH services that last</a>	IRC, 2013	A 4-minute video introducing the LCCA. It details how the LCCA represents part of the solution to the challenge of ensuring sustainable WASH services.
Publication	<a href="#">030403: Collecting life-cycle cost data for WASH services: A guide for practitioners</a>	IRC, 2019	A guide to collecting data, conducting surveys and interviews and contextualising the information required when utilising the life-cycle cost approach to comprehensively identifying and analysing the full costs of delivering WASH services.
Toolkit	<a href="#">030401: Costing and budgeting tools</a>	IRC, 2017	A toolkit consisting of four tools (Asset Registry Assessment Tool; Cash Flow Analysis Tool; Direct Support Tool; Financial Overview) designed to be used by anyone seeking to adopt a LCCA to the planning and budgeting for sustainable water services at the district level.
Tool	<a href="#">WASHCost Share</a>	IRC, 2014	A tool to access the cost of water and sanitation services based on shared data. The tool is based on the life-cycle costs approach, and helps users to consider: initial setup costs as well as recurrent expenditures (per person per year); LCCs compared against the level of service in a service area; and data on the cost of household sanitation and public water supplies in the service area.
Online course	<a href="#">WASH Systems Academy</a>	IRC, 2019	An online course that assists WASH sector professionals to apply a WASH system strengthening approach. The ‘Basics’ and the ‘Building Block’ course cover LCCs in detail.
Related Topics		SSI SSI SSI	Assessing the WASH Context (District/County/Woreda) Supporting Local Governments in Developing WASH Plans Strengthening Asset Management for WASH Services

In addition to the above, [030405](#) provides additional resources.

## SUPPORTING LOCAL GOVERNMENTS IN DEVELOPING WASH PLANS

0305

### A. Overview of the topic

'Enhancing government leadership of sector planning processes' is the first of SWA's four **Collaborative Behaviours**, and a key principle of **Agenda for Change**. Having a strategic plan is a pre-requisite for effective investment in WASH services – to understand needs for, and coordinate inflows of investments. In the absence of a strategic, evidence-based WASH plan, investments by government or sector tend to be un-coordinated and un-strategic, and potentially inequitably distributed. Significant efforts are needed in most countries to achieve the SDG targets of universal and sustainable WASH services, and the development of local (e.g. district or equivalent) WASH plans helps to translate national and global targets to the strategic plans of at the local level.

This topic brief summarises the process of supporting service authorities to develop strategic plans for universal and sustainable WASH services, drawing on the Agenda for Change Roadmap (030501) – see Figure 08 below. Earlier topic briefs summarise the introduction and visioning (0201, 0302), assessment (0303) and costing (0304) phases, whilst this brief focuses on the overall planning process.

### B. Common process and tips on what to consider

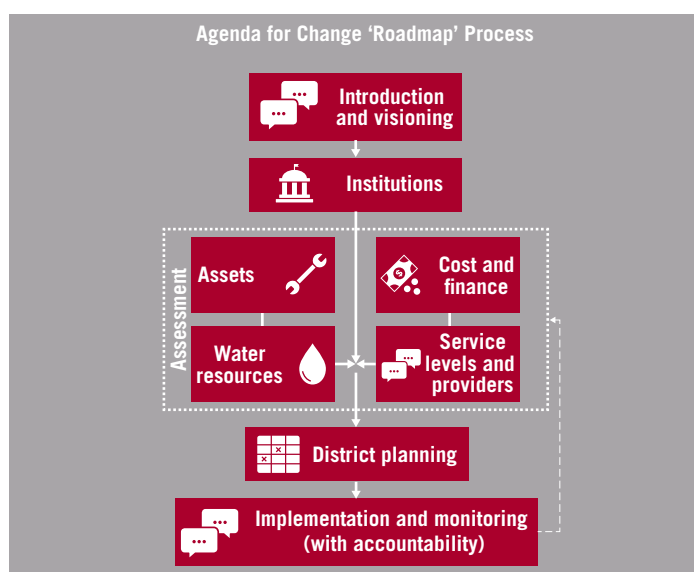
Supporting organisations should consider the following when supporting local authorities in planning:

- Start with a visioning workshop (refer to Topic 0201) with local authorities (including technical, administrative and political representatives), and also with representatives from higher levels of government, ensuring all relevant stakeholders and institutions are aligned to the common goal of sustainable WASH services for all. Following this, work with the service authority(ies) to ensure the requisite capacity is in place for them to lead the process (e.g., coordination platforms, vacant posts filled, etc.).
- Be mindful that the process is government-led and that the process of developing the plan builds capacity and systems. Whilst the plan itself is an important deliverable, the process of developing it can strengthen systems, and builds the foundations for implementing the plan. The supporting organisation should play a facilitating rather than leading role in this. Whilst it is easy to contract a consultant to do the surveys and write the plan, consider the implications on ownership and capacity strengthening. See for an example of how the process of developing WASH plans built capacities in Nepal.
- Plans should focus not only on achieving but sustaining access (considering all and recurrent activities required to sustain services, behaviours and social norms).
- WASH (and especially water) policy and practice often ignores men and women's separate needs. Developing a WASH plan provides an opportunity to raise important issues in this area and ensure alignment among stakeholders around the steps to be taken to ensure that a gender perspective is integrated into institutions and that WASH services are delivered in a gender-sensitive manner.
- Decisions on what aspects of WASH are (or are not) included in the plan (e.g. whether or not to include IWRM, solid waste, etc.) should be driven by the mandates of the service authority(ies), rather than the focus of the project which is supporting it.
- Involve civil society and make the process a strong example of inclusive and accountable planning.
- Developing strategic WASH plans takes time, and interim plans may be needed to guide investments until the overall strategic plan is launched.
- Align activities to government planning cycles.
- WASH is multi-disciplinary, and mandates may cut-across multiple sectors, each of which have different planning processes and cycles (e.g., water, health, finance). For example, is a single WASH plan appropriate, or a Water plan, with hygiene captured in health plans?
- Involve a wide range of sector stakeholders from an early stage in the process, to ensure alignment and operationalisation of the plan. Ensure the plan is publicly launched and available online.
- Ensure the service authority has the capacity to coordinate WASH actors and aligns reporting to the plan – it is also necessary to ensure periodic multi-stakeholder review and updating of the plan.

## C. Resources (papers, tools, good practice examples)

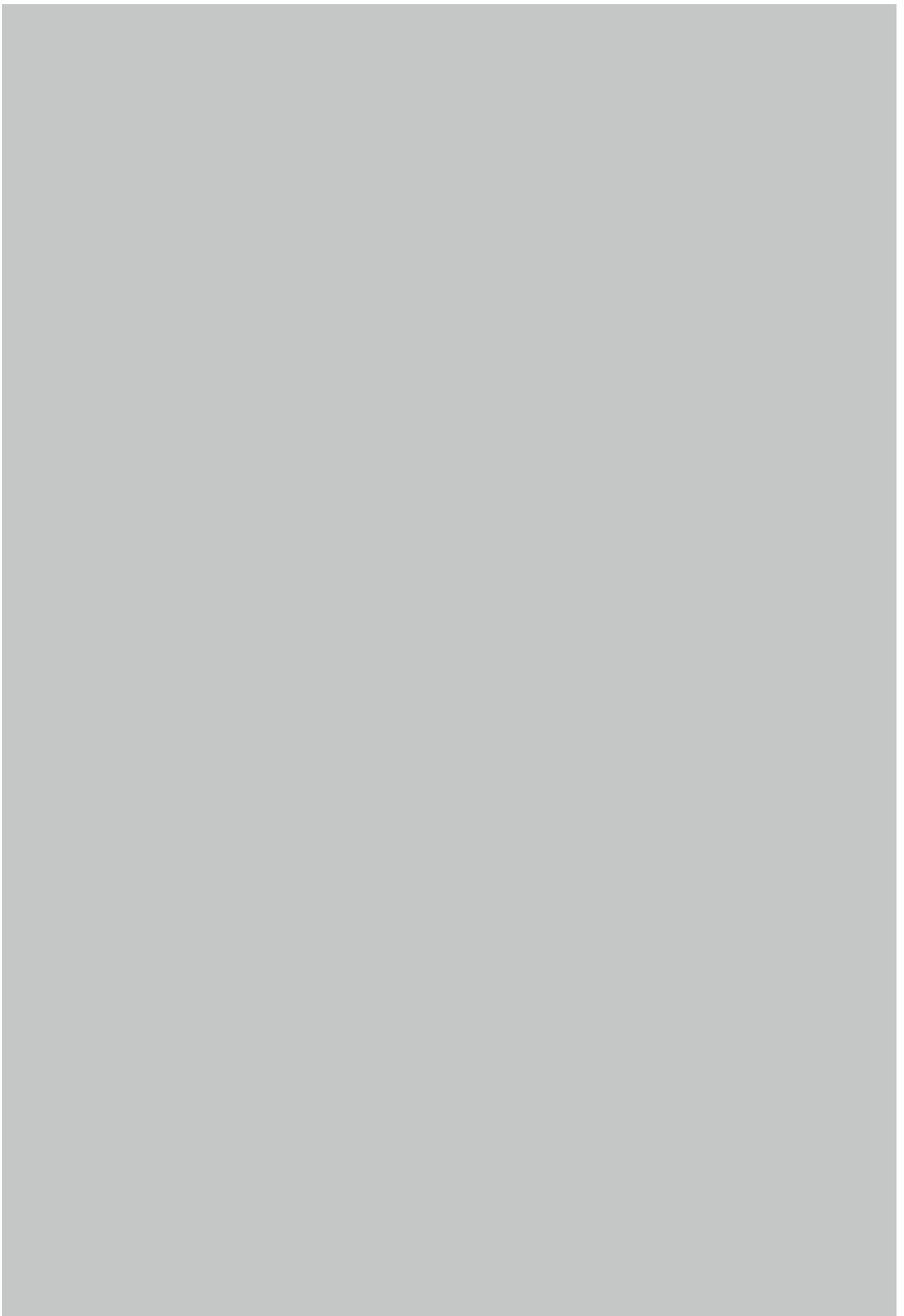
# 0305

**030501** (Agenda for Change Roadmap) and **030503** (Aquaconsult Guidance) provide a broad overview of the process of developing WASH plans based on the experience of Agenda for Change members; Agenda for Change continues to upload resources on the topic to their [website](#). The [IRC](#) site includes examples of various plans which have been developed, and other topic briefs include guidance and tools on the introduction and visioning (0201 and 0302), institutions (0301 and 0302), assessment (0303) and costings (0304) aspects of the planning process.



**Figure 08:** Generic Roadmap for WASH Planning. Source Tillett & Smets / Agenda for Change 2017

Type	Tool / Resource	Author, Date	Description
Publication	<b>010301</b> : Agenda for Change: A District Level Roadmap for Universal Access to Sustainable Services	Tillett & Smits, 2017	A 30-page document that provides a generic (non-country specific) road-map focussed on the process of supporting service authorities to develop WASH plans to achieve SDG targets, and how to support in the operationalisation of this plan. A short introductory video on the roadmap is available <a href="#">here</a> .
Podcast	<a href="#">Planning for systems strengthening</a>	IRC, 2019	A podcast on how to strengthen existing planning processes rather than duplicating efforts.
Publication	<b>030503</b> : Guidance for developing a District WASH plan	Boulenouar & Sanchez-Trancon, 2018	A 14-page guidance note describing the key steps of developing a WASH investment plan in Rwanda, as well as the output. It is designed for district managers and the technical team as well as partners supporting districts.
Publication	<b>030504</b> and <b>030502</b> : Examples of written-up District WASH Plans	Various (supported by IRC)	<b>030504</b> : Example of a WASH plan for Kabarole District (Uganda) <b>030502</b> : Example of a WASH Plan for Asutifi North District, Ghana
Publication	<b>030505</b> : Kick-starting WASH systems in newly formed local authorities - an experience from Nepal	Tillett & Gautam, 2019	An 8-page paper, which provides an overview the process and learning from the ongoing work of local government WASH planning in Nepal. This is written by the SSI and based on WHH Nepal's WASH project in Chitwan District.
Publication	<b>010204</b> : Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis (2020)	This paper includes practical case study examples from various countries where Agenda for Change members have been developing WASH plans
Publication	<a href="#">Long-term planning essential for sustainable WASH services</a>	IRC, 2019	A case study from IRC's work in Kabarole District in Uganda, which highlights the importance and benefits of long-term planning for sustainable WASH services. It was developed with the support of IRC.



## STRENGTHENING GOVERNMENT MONITORING SYSTEMS

# 0401

### A. Overview of the topic

Comprehensive and effective national monitoring systems are a critical  for strong . Reliable and up-to-date information strengthens the ability of both national and local governments to assess progress, identify areas of weakness – both geographically and thematically – and to prioritise resource allocation and support. Conversely, what is not measured, cannot be managed. This topic brief focuses on strengthening monitoring systems at the local (e.g., district or equivalent) level, which is where WHH’s programming is largely focussed. The lack of reliable, updated data at the  level undermines the ability to make informed decisions on localised planning and budgeting, significantly weakens capacity to regulate or govern WASH services, and means that ongoing support and oversight to  is likely to be inadequate.

### B. Common process and tips on what to consider

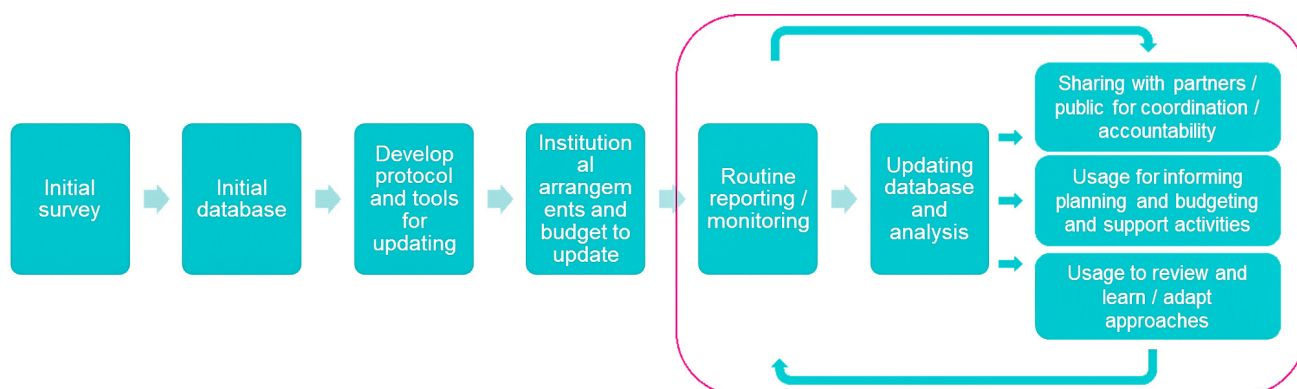
Organisations seeking to strengthen WASH monitoring systems at the local level should consider:

- WASH sector monitoring frameworks should be defined at the national level and harmonised across the country. As such, work to strengthen local monitoring should help to operationalise sector frameworks and processes by linking with existing national frameworks, rather than invent new, ‘project-based’ indicators, definitions, tools or monitoring protocols.
- Therefore, when supporting organisations implement programmes, they should always consider how to align monitoring efforts with government systems, including compatible indicators, to survey all areas within an administrative boundary, and to involve local stakeholders with the mandate for data collection and analysis – not limiting surveys to ‘project’ boundaries, or using only project staff.
- The exception is where sector monitoring frameworks do not exist or are so weak/fragmented that localised efforts by NGOs and others can support the development and testing of new approaches, with a view to share lessons and encourage wider sector scale-up (refer to Topic 0502).
- One-off surveys, such as those undertaken during assessments for WASH plans, or asset mapping, can be valuable entry points for kick-starting recurrent monitoring processes, in contexts where they are not yet in place (see Figure 09 and 040103).
- Whilst the themes and indicators that need to be monitored locally will vary by context, generally they will include:  (including functionality); service provider performance and capacity; behaviours and social norms (e.g. relating to ODF or hygiene), and the quality of  products and services (e.g., spare parts, or maintenance and faecal sludge management services).
- Sector monitoring frameworks should also track performance of the service authorities themselves, including the frequency of support for WASH service providers, data collection and reporting.
- Effective monitoring systems require a number of elements, including clearly defined mandates and institutionalised roles for monitoring; ongoing financing through regularised budget allocations; reporting and data management systems to aggregate data from scheme to district and higher levels and commonly adhered to proformas, and defined monitoring tools and reporting frequencies. Efforts to strengthen systems should consider all these aspects.
- Technology, including mobile-to-web data, can enable more efficient data capture and analysis, but is not a ‘silver bullet’ for chronically weak sector monitoring systems. Many pilots have been done to introduce mobile-to-web monitoring or data management software, but not all have achieved scale or been sustained (040106).
- When deciding whether to introduce such technologies, consider factors such as ensuring alignment with sector indicators; the likely sustainability given local capacities and financing to support recurrent budgets; data needs and demand; what incentives people have to report and use the data; and, the trade-offs between the number of indicators/reporting frequency, and cost.
- Finally, it is important to consider transparency in national monitoring systems in making data available and accessible to different stakeholders; who controls the data and relating information?

## C. Resources (papers, tools, good practice examples)

# 0401

IRC has a dedicated [webpage](#) for sector monitoring, and the [WASH Systems Academy](#) has a specific BB module on the topic. Examples of survey forms are provided in Topic 0303 Assessing the WASH Context, whilst this is also captured in Regulation and Accountability (0404), Post-Implementation Monitoring (0501), Water Resources Management (0402) and Asset Management (0403). The table below provides resources on sector monitoring frameworks and sustainability indicators, the SSI's experiences in turning one-off surveys into recurrent monitoring processes (see Figure 09) and the experiences of organisations seeking to strengthen local government monitoring systems. It also includes resources looking at the monitoring of change within the system through time (also see Topics 0302 and 0501).



**Figure 09:** An example process of moving from a one-off survey to recurrent monitoring. Source: Tillett & Gautam 2019

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">040103</a> : Kick-starting WASH systems in newly formed local authorities	Tillett & Gautam, 2019	An 8-page paper written by the SSI detailing WHH Nepal's efforts in turning one-off surveys from the WASH Planning Assessment surveys into recurrent monitoring processes.
Publication	<a href="#">040104</a> : Service delivery indicators and monitoring to improve sustainability of rural water supplies	IRC & Agua-consult, 2014	An 8-page briefing note providing a rapid overview of rural water monitoring. It covers the limitations to existing monitoring systems, the need to move towards a service delivery approach to monitoring, emerging solutions and good practices, and monitoring for performance management.
Publication	<a href="#">010204</a> : Concepts & Experiences of Agenda for Change in Systems Strengthening	Tillett, Huston & Davis, 2019	A paper summarising experiences and tools of Agenda for Change on systems strengthening, including on monitoring systems change, and strengthening monitoring systems.
Podcast	<a href="#">WASHTalk EP12 – National Monitoring Systems with Benedict Kubabom and Abdul Hafiz Koroma</a>	IRC	A 22-minute podcast about national WASH service monitoring for improved WASH services and attainment of the SDGs.
Publication	<a href="#">040101</a> : WaterAid's approach to support national and subnational WASH service monitoring processes	WaterAid, 2016	A 12-page review of previous WaterAid assistance programmes for WASH service monitoring that have been carried out in Liberia, Malawi, Swaziland, Mali and Kenya.
Publication	<a href="#">040105</a> : Service Delivery Indicators for Strengthening Local Monitoring of Rural Water Service Delivery in Uganda	IRC, 2014	A 6-page paper that presents a framework of service delivery indicators for monitoring rural water services in Uganda. The paper describes the process of developing the indicators and shows how they complement the golden indicators.
Online training course	<a href="#">WASH Systems Academy</a>	IRC, 2019	An online course that assists WASH practitioners to apply a WASH system strengthening approach. The Building Block course covers strengthening government monitoring systems.
Publication	<a href="#">040102</a> : From Infrastructure to Services: Trends in Monitoring	IRC, 2015	A 186-page book providing a comprehensive overview of developments in WASH monitoring.
Related Topics		SSI, 2019	Assessing the Strength of the Systems at the Local Level Strengthening Water Resource Management Strengthening Asset Management for WASH Services Strengthening Accountability and Regulation Assessing Service Levels and Long-Term Performance Sector Learning, Dissemination and Upscaling.

## STRENGTHENING WATER RESOURCE AND ENVIRONMENTAL MANAGEMENT

# 0402

### A. Overview of the topic

Water resource and environmental management (WREM) refers to the coordinated development and management of water and related resources to maximise economic and social welfare without compromising the sustainability of the environment. Common sectoral gaps regarding WREM include:

- Weak national water policies and often fragmented jurisdiction of for water resources management across multiple ministries/institutions with poor coordination and lack of engagement across the ;
- lacking information to allocate, plan and regulate water resource use, and lack of capacity for water safety planning;
- lacking understanding or practices around of the protection of watersheds, leakage management and conflict management between different user groups.

This topic brief focuses on aspects such as water resource management plans, local governance and more localised measures such as water safety planning (040202) for preserving water quality and quantity.

### B. Common process and tips on what to consider

There are various actions which organisations can support to strengthen the WREM-aspects of the WASH system, at different levels. Approaches may vary between more stable and fragile contexts:

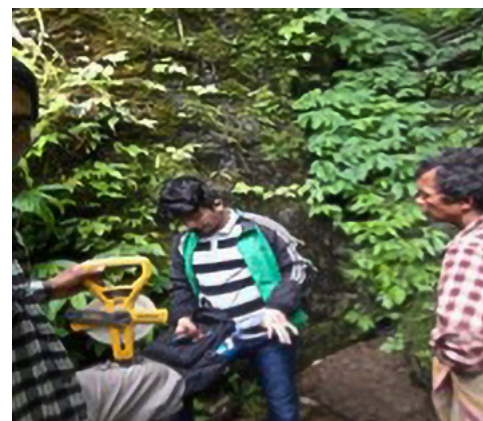
- Supporting coordination and communication platforms between the drinking water sector and the agriculture/irrigation sector, and between water supply service authorities and basin authorities. In low-income contexts, this may alternatively (or additionally) include developing collaborative approaches between communities and traditional leadership structures for equitable water allocations, rangeland management and protection/restoration of watersheds.
- Strengthening dialogue between the community, traditional leadership and local governance structures at the district (or equivalent) level for water resource management.
- Supporting existing water catchment management committees, inter and intra-district level dialogue and collaboration and joint decision-making between multiple stakeholders including CBOs, research institutions and the private sector. Ensuring WREM is included in strategic planning for water supply services (see Topics 0303 and 0305).
- Strengthening the processes and capacity in the service authority to register service providers and resolve water resources disputes.
- Strengthening capacities at the service authority and service provider levels to monitor and track hydrological information, such as water levels and source yields. Strengthen capacities of service authorities and local contractors to include water resources assessments in infrastructure development.
- Strengthen water quality monitoring processes at the service provider and service authority levels.
- Help government to define and enforce environmental standards for fecal sludge management, and help study or demonstrate technologies and business models for 'closed loop' sanitation.
- Undertaking Shit Flow Diagrams (040502) to increase the availability of data, and use this as a communication and advocacy tool to service authorities on fecal loading on the environment.
- Supporting service providers to monitor and manage/protect water sources and to set and collect an appropriate level of tariffs/fees which can support ongoing source preservation efforts.
- Supporting service providers to develop water safety plans (040202) with a focus on high priority risks – where risks cannot be immediately addressed, support incremental improvements to be implemented systematically over time.
- Water resource management and environmental management should be addressed within district WASH plans (Topic 0305).



## C. Resources (papers, tools, good practice examples)

# 0402

WaterAid's toolkit (040201) on improving water security and management provides practical guidance on measures that can be incorporated into WASH programming and it also provides several useful tools for improving water resources management at the community level. In addition to this, several valuable resources have been produced that provide comprehensive overviews of key topics such as water safety plans (040202 and 040204) and [integrated water resource management \(IWRM\)](#). Additionally, IRC's [WASH System Academy](#) 'Building Blocks' course provides detailed information on water resources management.



Recording GPS coordinates during Water Resources Survey by WHH in Chitwan, Nepal.

Type	Tool / Resource	Author, Date	Description
Online Course	<a href="#">WASH Systems Academy</a>	IRC	A dynamic online platform that assists WASH sector professionals in applying a WASH systems strengthening approach. Part of the 'Building Blocks' course focuses on water resources management in detail.
Toolkit	<a href="#">040201: Improving water security and management of water resources in Sahelian WASH programmes: a toolkit</a>	WaterAid, 2016	A 48-page toolkit, which provides an overview of WaterAid's securing water resources approach as well as a series of tools and resources that can help WASH practitioners to strengthen water security in WASH programming.
Publication	<a href="#">040202: An introduction to water safety plans</a>	Loughborough University, 2017	A condense, 26-page mobile note describing what water safety plans are, why they are used, and how they can be developed and implemented.
Publication	<a href="#">Integrated Water Resources Management</a>	Sustainable Sanitation and Water Management	An online resource that provides a good introductory overview of Integrated Water Resources Management. It covers key areas, including why it is important, guiding principles, and how to integrate economic efficiency, equity and environmental sustainability into Integrated Water Resources Management. Further readings, awareness-raising materials, and important weblinks are also provided.
Publication	<a href="#">040203: Big gains from small funds: Experiences from WaterAid Ethiopia's 20 town capacity development programme</a>	WaterAid / Aguaconsult, 2017	An overview of a capacity building and performance improvement programme of small town water utility service providers in Ethiopia. Water safety planning and leakage management are covered in sections 6.10–11.
Publication	<a href="#">040204: Water Safety Plan Manual: Step-by-step risk management for drinking water suppliers</a>	WHO & International Water Association, 2019	A comprehensive, 109-page manual that provides practical guidance for facilitating the development of Water Safety Plans. It primarily focuses on organised water supplies managed by a water utility or similar entity.
Publication	<a href="#">040205: Water Resources Allocation: Policy Highlights – Sharing Risks and Opportunities</a>	OECD	A 16-page document that provides a top-level overview of water resources allocation. It includes sections on current allocation arrangements, the effects of climate change and a framework for water resources allocation.
Related Topics		SSI, 2019 SSI	Assessing the WASH Context (District/Country/Woreda) Analysing the Supporting local authorities in developing WASH plans

## STRENGTHENING INFRASTRUCTURE ASSET MANAGEMENT

# 0403

### A. Overview of the topic

Infrastructure Asset Management (IAM) refers to the planned management of infrastructural assets (e.g. water supply facilities, sludge treatment plants, etc.) to maximise their useful lifespan. This topic brief focusses on aspects such as repairs, maintenance and asset replacement. In many contexts, IAM practice is either completely absent or inadequate, resulting in serious challenges for WASH service delivery. Rather than pro-active and planned preventative maintenance and the replacement of worn-out components, a 'fix on failure' approach is often adopted. This not only reduces the potential lifespan of the components through lack of routine servicing, but also leads to service disruption, potentially for extended periods, while the mobilises funds for repairs, waits for spare parts or seeks external support.

The responsibility for minor maintenance generally lies with service providers, whilst responsibilities for planning and financing major maintenance may be with the service provider, , or a combination of the two; the distinction between these types of maintenance is often not clear, which leads to problems. Local government budgets are often heavily skewed towards with significantly lower allocations for . This is often due to the difficulty in determining what maintenance may be needed, when, and what the likely costs may be. Likewise, service providers' financial or technical capacity for capital maintenance may be limited.

Strengthening IAM can help service authorities and/or service providers to ensure that planned maintenance is conducted and capital assets (pumps, motors, pipes, etc.) are repaired, replaced or upgraded on time, and that there is enough money to pay for it. Strengthening asset management leads to more realistic budgeting and planning by the service authority and service provider, a more planned and preventative approach to maintenance, and higher levels of service.

### B. Common process and tips on what to consider

Infrastructure asset management systems can be strengthened at the service provider level, to improve the sustainability of individual schemes, and at the service authority level, benefitting all schemes in the district (or equivalent). Examples, processes and considerations are summarised below:

- **At the service provider level**, IAM may include strengthening capacities to monitor and preventatively maintain infrastructure as well as helping to develop a multi-year plan that considers all major components, lifespan and maintenance requirements, and depreciation and costs of maintenance (to inform tariff setting). Critical assets can be identified, and plans made on how risks to service provision can be mitigated if they were to fail. The management of stocks and spare parts can also be strengthened, and arrangements with specialised maintenance service providers can be put in place.
- **At the service authority level**, the clarification of responsibilities for maintenance tasks is helpful. A common entry point for IAM is a district (or equivalent) wide water point mapping (asset inventory). This captures the geo-location of water infrastructure, the number of people served and the quality of the water as well as information on the age, functionality and condition of infrastructural components. This data not only shows current capital maintenance needs, but also enables the prediction of likely maintenance and replacement needs in the future and the identification of which are the highest priority. By using sector unit costs, the current and future capital maintenance costs across the district can be calculated and used to inform service authority and service provider budgeting.
- Asset inventory mapping, and the analysis of outputs, can be a good entry point for working with the service authority (see Topic 0103), but remember to take a facilitating, not a leading role in this process.
- Asset inventories need to be updated, and support will be needed to establish or strengthen service authorities and service providers' reporting and monitoring protocols and to help them shift from mapping to monitoring (see Topic Brief 0401).
- Professionalising maintenance services, and improving spare parts supply chains are key components of strengthening IAM. Asset inventories can provide data to help structure these, and support organisations can strengthen the quality of services or parts available in the district.

## C. Resources (papers, tools, good practice examples)

# 0403

IRC's Asset Registry Assessment Tool (040302) can be used to assess the age of water system components, overall functionality, level of service and the physical state of the water scheme. Additionally, the United States Environmental Protection Agency (040301) and the Georgia Association of Water Professionals (040305) provide valuable overviews of asset management, while USAID (040304) have recently undertaken a comparative study of maintenance models for community-managed schemes.

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">040301: Asset Management: A Best Practices Guide</a>	United States Environmental Protection Agency, 2008	A condense, 4-page document that explores the five core questions of asset management (current state of assets, level of service, critical assets, minimum life cycle cost and long-term funding plan) and the best practices for each. This document is designed for the owners, managers, and operators of public water systems, local officials, technical assistance providers, and state personnel, but also represents a valuable tool for NGOs supporting service authorities.
Tool	<a href="#">040302: Asset Registry Assessment Tool</a>	IRC, 2017	A tool that tells you what water infrastructure is at risk and which components you should consider replacing. The tool helps you to plan for rehabilitation and other capital maintenance expenditure, based on the data (age, current condition, level of service) on the infrastructure in a given geographic area.
Podcast	<a href="#">Asset management for sustainable WASH infrastructure development</a>	IRC, 2019	A short podcast detailing why asset management is important to ensuring sustainable WASH services and how it relates to infrastructure development.
Tool	<a href="#">040303: Check Up Program for Small Systems (CUPSS)</a>	United States Environmental Protection Agency	An asset management desktop software programme that supports water utility operators in documenting their physical assets, tracking maintenance and replacement, planning annual budgets, and providing an overall plan for the management of the water system. Important background information for the tool can be accessed here.
Publication	<a href="#">040304: Sustaining Rural Water: A Comparative Study of Maintenance Service Provision Models</a>	USAID, 2019	A comparative study reviewing a range of existing and newly emerging approaches to providing maintenance services for rural water supply services operating under community-based management. It details common lessons, challenges and success factors and outlines practical recommendations for establishing maintenance models at scale.
Publication	<a href="#">040305: A Guide to Asset Management for Small Water Systems</a>	Georgia Association of Water Professionals, 2015	A 19-page document that assists service authorities and service providers to learn why they need to develop an Asset Management plan, how to start setting up a plan and what benefits will be derived from the plan.
Publication	<a href="#">040306: Big gains from small funds: Experiences from WaterAid Ethiopia's 20 t capacity development programme</a>	WaterAid/ Aguaconsult 2017	An overview of a capacity building and performance improvement programme of small town water utility service providers in Ethiopia. Strengthening asset management is covered in section 6.8.
Video	<a href="#">Water Engineering and Development Centre: Videos</a>	WEDC	A series of educational films feature on YouTube and can be viewed below, including a suite of four films on water sampling and analysis, a series of introductions to handpumps and a series on the operation and maintenance of hand-pumps.

## REGULATION AND ACCOUNTABILITY OF WASH SERVICES

0404

### A. Overview of the topic

Regulation and accountability are two distinct but related concepts in WASH. **Accountability** refers to holding , local government, elected officials and others who are in charge of providing services to account; this can take the form of informal and formalised channels. **Regulation** of WASH services commonly focuses on a narrower set of issues, including economic regulation (e.g. enforcing tariffs and service quality), customer protection (e.g. complaints mechanisms) and competition regulation. Both are important mechanisms to ensure that consumers and the environment are protected, that marginalised groups receive fair access and that providers do not abuse their position as water suppliers that effectively function as monopolies in any given area. Building effective mechanisms for both accountability and regulation is an essential part of a strong and can support the long-term sustainability of services.

### B. Common process and tips on what to consider

Accountability is characterised as being either ‘vertical’ or ‘horizontal’ in nature. In the former, individual consumers within a community can put pressure on service providers, or together with the media or civil society, hold state actors who are duty bearers for WASH (such as local government or public utilities) to account for their actions. Service providers – including entities – need to be accountable to their customers, and equally need to be regulated by and accountable to . Horizontal accountability occurs between different state actors, for example through audits, regulatory bodies or ombudsmen. Many countries in the developing world have regulators in the WASH sectors, but often focusing on urban areas, with very little formal regulation of rural services which is generally weak, fragmented and/or devolved in part to local government acting as service authorities.

The following table provides examples of actions that support organisations could take to strengthen accountability and regulation at the user, service provider and service authority levels, with important considerations outlined below.

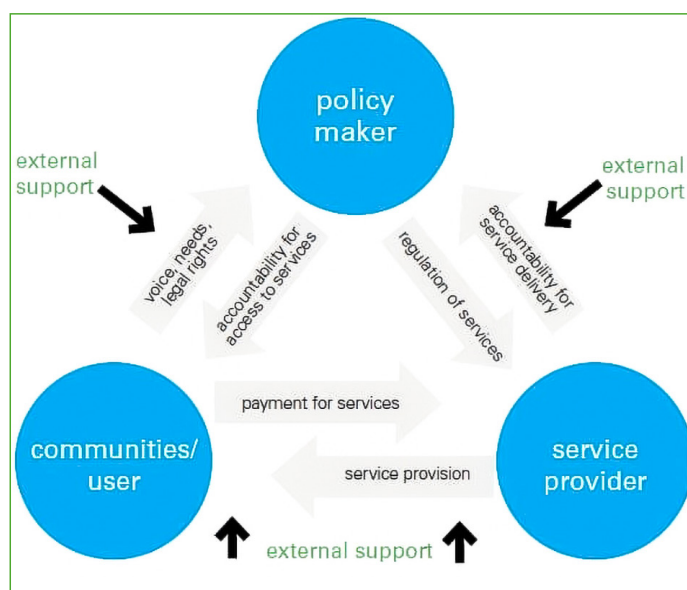
User ↔ User	User ↔ Service Provider	Service Provider ↔ Service Provider	Service Provider → Service Authority / Regulator	User ↔ Service Authority
Bylaws and social norms (e.g. on open defecation, the dumping of garbage and vandalising WASH infrastructure).  Accountability between users to pay tariffs regularly.	Customer forums / dialogue platforms; citizen score cards; strengthening service provider capacity in customer relations and financial accountability; and, educating customers on rights and service standards.	Service provider associations for intra-member service setting and regulation.	Key Performance Indicator definitions and tracking / service provider benchmarking; strengthening monitoring and regulation capacities and processes; strengthening / setting service standards; and external auditing service providers.	Complaints and grievances processes; access to a ombudsman or third-party arbitrator; citizen score cards; strengthening capacities and engagement of civil society and WASH journalist networks; public auditing of annual planning and budget allocation processes; increasing public access to information; and district meetings and public forums.

- Technology can improve regulation and accountability: mobile money and cashless user payment systems increase the traceability of finances, mobile apps improve the accuracy and accountability of meter reading and billing and water meters allow the auditing of water supplied vs. revenues declared.
- Strengthen the accountability of service providers: e.g. in complaint systems and financial management.
- Clearly defined roles and responsibilities between different stakeholders at all levels are required to make accountability more effective and to hold mandated duty bearers and providers to account.
- Regulators need the power and capacity to deliver their mandate and regulatory responsibilities, without which, enforcement capacity is likely to be ineffective.

## C. Resources (papers, tools, good practice examples)

0404

UNICEF's *Accountability in WASH – Explaining the Concept* (040401) provides a useful introduction, while *Accountability in WASH – The Reference Guide for Programming* (040405) contains guidance for promoting accountability, illustrated by examples of how they are currently being operationalised in different contexts. The *Water Integrity Network* has several tools to support external support agencies, civil society, policymakers, etc. support integrity management, strengthen accountability and reduce corruption for public and private institutions. Additionally, WaterAid (040403) and UNICEF (040404) have also produced useful toolkits that can support you in awareness-raising, promoting participation, evaluating levels of participation and accountability mapping.



Type	Tool / Resource	Author, Date	Description
Publication	040401: Accountability in WASH – Explaining the Concept	UNICEF, 2015	A 30-page document providing a good introduction Water governance, WASH and sustainability, WASH and accountability, accountability relations in WASH services and how to work with accountability.
Publication	040402: Regulation in Rural Areas	IRC/Triple-S briefing note, 2015	Summary explanation of regulatory functions and mandates for rural water supply.
Toolkit	040403: Understanding and Addressing Equality, Non-Discrimination and Inclusion in WASH Work	WaterAid, 2018	A detailed 122-page document that introduces issues of marginalisation as well as a series of tools for awareness raising, promoting participation and evaluating levels of participation – all of which are key to ensuring effective accountability for WASH services.
Toolkit	Integrity management toolbox	Water Integrity Network, GIZ	An adaptable set of stakeholder assessments, action resources and workshop methodologies that support management for private and public institutions. The toolbox offers a step-by-step process to assess and manage integrity risks.
Tool	040404: WASH Accountability Mapping Tools: Facilitator Guides	UNICEF, Water Governance Facility, SIWI, UNDP, 2016	A 15-page Facilitator Guide that details each step of two types of WASH accountability mapping exercises: a quick (1/2 day) mapping at the sector level and an in-depth (2 day) accountability diagnosis at the service delivery level.
Publication	040405: Accountability in WASH – A Reference Guide for Programming	UNICEF, 2015	A detailed document that provides support agencies with structured and concise information that can help programming support to accountability-related actions.
Online course	040406: Citizen Report Card Learning Toolkit	Asian Development Bank & The Public Affairs Centre, 2007	A self-learning course that is designed to help users develop the basic knowledge and skills to implement a Citizen Report Card - a tool to provide public agencies with feedback from users of public services.

In addition to the above, 040411 provides further resources on this topic.

## STRENGTHENING SYSTEMS WITH FOCUS ON SANITATION AND HYGIENE

0405

### A. OVERVIEW OF THE TOPIC

When we talk of WASH, we refer to three distinct ‘sub-sectors’ (water, sanitation and hygiene). As such, when talking of ‘WASH’, we need to be aware of the differences between these sub-sectors, to avoid our systems strengthening work being biased towards water supply and ignoring sanitation and hygiene (S&H). This topic brief highlights some of the particularities of S&H, details why these are important to systems approaches, and provides some examples of actions specific to S&H. This brief summarises a more detailed paper on this topic developed by the SSI (040501).

The S&H sub-sectors have features that make them distinct from water, which has implications for systems strengthening:

- **Water supply is a public good, whilst sanitation is generally seen as a private good.** This influences the part of the system or which that need to be strengthened. In S&H, although strengthening governmental actors to ensure their role in creating the right enabling conditions remains important, it is also necessary to focus on strengthening household and market actors. It also means that the roles and responsibilities between the and the household to ensure service delivery differs from publicly provided water supply services.
- **Water is life, while S&H is more strongly linked to culture and individual behaviours where people have a choice.** Although issues of demand creation, social norms and raising political will are important for water supply, they are all central and critical to successful S&H.
- **Responsibilities for S&H can be poorly defined or overlapping.** Responsibilities for water supply often rest with one ministry; however, sanitation can be split across numerous ministries or technical agencies. In this, efforts to strengthen or develop WASH plans need to consider multiple ministries and stakeholders, coordination between them and linkages with other sectors (e.g. health, environment). The definitions of ‘what is included’ in the terms ‘sanitation’ or ‘hygiene’ can vary (e.g. does sanitation also include solid waste, drainage), and ‘hygiene’ relates to a wide range of different behaviours (e.g. from handwashing to menstrual hygiene management), so defining what is included, and what is not, is key, and often driven by the mandates of the service authorities.

### B. COMMON PROCESS AND TIPS ON WHAT TO CONSIDER

Some examples of how organisations can strengthen systems in S&H are provided across the SSI :

<b>1 Insitutions</b>	<ul style="list-style-type: none"> <li>■ Ensure roles and responsibilities for S&amp;H are clear for all stakeholders and analyse their capacity to fulfil mandates</li> <li>■ Strengthen coordination and joint planning between entities working on different elements of WASH</li> <li>■ Strengthen capacities of market-based service providers and legally formalise and professionalise faecal sludge management (FSM)</li> </ul>
<b>2 Infrastructure</b>	<ul style="list-style-type: none"> <li>■ Pilot and refine and appropriate technologies for sanitation and FSM services</li> <li>■ Ensure ongoing availability of technical guidance for the location and construction of domestic S&amp;H facilities, and support the construction of gender appropriate sanitation infrastructure</li> <li>■ Encourage market-based players to provide (quality) S&amp;H products, and FSM equipment</li> </ul>
<b>3 Regulation Accountability</b>	<ul style="list-style-type: none"> <li>■ Ensure mandates for regulation in S&amp;H are clear and efficiently coordinated</li> <li>■ Encourage inter-service provider enforcement of standards, such as through FSM operator associations, strengthen sanitary inspection and enforcement processes, and engage civil society to hold service authorities and providers to account on S&amp;H issues</li> </ul>
<b>4 Planning</b>	<ul style="list-style-type: none"> <li>■ Undertake assessments (e.g., Knowledge Attitude and Practices, Shit Flow Diagrams etc.) across the jurisdiction of the service authority to enable evidence-based district-wide planning</li> <li>■ Support the development of joint WASH plans which cut across WASH, environment and health sectors, and encourage multi-stakeholder dialogue on S&amp;H</li> <li>■ Ensure WASH plans focus on sustainable services, consider the wider FSM chain, acknowledge the different S&amp;H needs of men and women, stipulate how women’s empowerment and full participation will be ensured a and outline how hygiene promotion and social norms will be constantly reinforced</li> </ul>
<b>5 Finance</b>	<ul style="list-style-type: none"> <li>■ Support service authorities and service providers calculate life-cycle costs of sanitation services</li> <li>■ Undertake business and financial modelling for FSM services across service areas and along the sanitation chain and engage financing institutions and market-based players to offer customer and service provider financing products for S&amp;H</li> <li>■ Advocate for targeted subsidies to ensure viability across the sanitation service chain, and where needed to support vulnerable households</li> <li>■ Advocate for and track budget allocation for to ensure funds for ongoing monitoring, enforcement, reinforcing hygiene messages and social norms, etc.</li> </ul>

<b>6 Monitoring</b>	<ul style="list-style-type: none"> <li>■ Strengthen mechanisms for post-ODF monitoring and ongoing monitoring of hygiene practices and norms</li> <li>■ Strengthen monitoring processes on FSM services (which may include monitoring by the service authority, FSM associations or other market players)</li> </ul>
<b>7 WREM</b>	<ul style="list-style-type: none"> <li>■ Support feasibility assessments or pilots of 'closed sanitation loop' approaches and technologies</li> <li>■ Build stakeholders capacity on SFDs, FSM, and Water and Sanitation Safety Plans</li> </ul>
<b>8 Learning</b>	<ul style="list-style-type: none"> <li>■ Encourage and support multi-stakeholder platforms for sharing and discussing learning on S&amp;H initiatives</li> <li>■ Strengthen information flows between sector and local-level learning platforms</li> </ul>
<b>9 Demand Behaviour Political Will</b>	<ul style="list-style-type: none"> <li>■ Raise political and institutional awareness on the importance of sanitation and of the wider sanitation service chain (e.g., using SFDs)</li> <li>■ Advocate for and track budget allocations for S&amp;H, and engage civil society and journalists</li> <li>■ Support widespread demand creation for S&amp;H in communities, in partnership with market-based actors, to link demand and supply</li> <li>■ Help to establish and strengthen social norms relating to S&amp;H, such as on ODF, sanitary toilets and avoiding informal sludge dumping</li> </ul>

### C. RESOURCES (PAPERS, TOOLS, GOOD PRACTICE EXAMPLES)

In recent years, increasing attention has been paid to strengthening the S&H components of WASH systems and this is reflected in the resources below. This topic brief summarises the contents of a discussion paper developed by the SSI (040501). IRC has developed a series of training materials to orientate yourself on the topic along with the tools below to help implement some of the systems strengthening actions.

Type	Title	Author, Date	Description
Publication	<a href="#">040501: Strengthening Sanitation and Hygiene in the WASH Systems Conceptual Framework</a>	Gensch & Tillett, 2019	A 30-page discussion paper (with 5-page summary) detailing key S&H related concepts of systems strengthening and practical insights for implementing organisations that need to be addressed as part of broader efforts to improve WASH service delivery.
Video	<a href="#">Systems Strengthening for Sanitation</a>	IRC, 2019	A short video that provides a very brief introduction to the six components of sanitation service delivery and how a system strengthening approach for sanitation services requires ensuring that all six of these components are present and secure.
Tool	<a href="#">040502: Faecal Waste Flow Calculator</a>	IRC	A tool that determines faecal waste volumes along the entire sanitation service chain, allowing users to determine where the biggest losses are and where interventions should be targeted. Issues that are harder to quantify, such as the existence of policies and legislation, are captured with the use of score cards. <a href="#">040503</a> is an example of a filled in version.
Online course	<a href="#">WASH Systems Academy 'The Basics': Section 5 'Sanitation systems strengthening'</a>	IRC, 2019	A 1-1.5 hour-long session of the IRC WASH systems academy 'the basics' course. It provides information on the sanitation service chain and the sanitation value chain, how the sanitation chain relates to WASH systems strengthening and the major challenges per BB to ensuring safe sanitation.
Podcast	<a href="#">Systems Approaches to Hygiene Behaviour Change: Lessons Across WASH, Health and Education</a>	IRC & Global Handwashing Partnership, 2018	An hour long podcast detailing the lessons that several organisations have learned on how to take a systems approach to hygiene behaviour change.
Online course	<a href="#">WASH Systems Academy 'The Basics': Section 6 'Hygiene systems strengthening'</a>	IRC, 2019	A 1-1.5 hour-long session of the IRC WASH systems academy 'the basics' course that details how hygiene promotion and WASH systems strengthening are linked and the key moments for hygiene promotion and how to promote behaviour change.
Publication	<a href="#">040504: A Guide to Strengthening the Enabling Environment for Faecal Sludge Management (FSM)</a>	WSUP, 2017	A 28-page guide that presents an introduction to conceptualising and strengthening the enabling environment for FSM services in low-income urban areas based on WSUP's experience to develop market-based solutions for on-site sanitation services in Bangladesh, Kenya and Zambia.
Publication	<a href="#">A Systems Strengthening Approach to Improve Hygiene Behaviours</a>	WaterAid, 2018	A blog outlining WaterAid's systems strengthening approach to improving hygiene behaviours, which embraces behaviour-centred design approaches and integrates hygiene behaviour change into ongoing government-led interventions for sustainable outcomes.

## STRENGTHENING WASH IN SCHOOLS SYSTEMS

0406

### A. OVERVIEW OF THE TOPIC

Whilst adequate WASH in Schools (WinS) is essential for health and education outcomes, such services are often not effectively maintained or sustained. Common challenges include a lack of formalised responsibilities for O&M, inadequate finances for infrastructure repairs or to purchase consumables (e.g. soap or cleaning products), and staff and pupil turnover. This topic brief summarises some key characteristics of the WinS sub-sector and provides examples of approaches across the nine SSI building blocks, and at different levels of the system.

Although WinS includes aspects of water, sanitation and hygiene, as a sub-sector, it has key features that are different to community or household WASH services, which have implications for systems strengthening:

- **Mandates and institutional arrangements:** WinS sometimes ‘falls through the cracks’ in terms of responsibilities between water, health and education Ministries. It may be unclear who the WinS service authority is and who should plan for, monitor or finance WASH services. As WinS is usually housed under the Ministry of Education, cross-sectoral collaboration are key, but often inadequate.
- **Ownership:** WinS infrastructure is part of the school infrastructure and therefore usually under the school management. However, providing adequate WinS facilities is often not prioritised. They are not owned by an individual (e.g. unlike a domestic toilet), nor are they owned by a WASH . Perceived ownership and hence responsibility for maintenance may be unclear between students, teachers, caretakers, parents, and local government.
- **Financing:** Unlike communal water supply services or public toilets, WinS services do not raise user tariffs. There are rarely specific budgets for WinS provided to schools and WinS is rarely a high priority for requesting grants or spending flexible funds i.e. provided from school parents.
- **Turnover:** Frequent staff and pupil turnover has implications on the continuity of knowledge and the need for ongoing arrangements for re-training and behaviour change activities.

### B. COMMON PROCESS AND TIPS ON WHAT TO CONSIDER

The table below provides some examples of systems strengthening in WinS across the SSI :

<p><b>1</b> Institutions</p>	<ul style="list-style-type: none"> <li>■ Clarify institutional mandates and responsibilities for issues such as planning, financing, monitoring and ensuring WASH services in schools. Where ambiguities exist, engage relevant actors to address.</li> <li>■ Strengthen processes and platforms for cross-sectoral (e.g. education, health, water) communication and coordination at various levels (e.g. national, )</li> <li>■ Develop WinS training materials and guidance, engage teacher training institutions to deliver WinS-related training as part of their standard teacher training courses and incorporate WinS into curricula</li> </ul>
<p><b>2</b> Infrastructure</p>	<ul style="list-style-type: none"> <li>■ Ensure that constructed or rehabilitated infrastructure matches users’ needs, for instance, providing a safe and private space with a water source that female school children can use when menstruating, catering to the needs of persons with disabilities and ensuring an adequate student to toilet ratio</li> <li>■ Introduce technologies based on appropriateness (e.g. water saving, low maintenance costs, Ecosan)</li> <li>■ Support schools to develop protocols for the upkeep of WinS infrastructure (cleaning the toilets, filling handwashing containers, etc.), and to develop budgets for consumables and repair needs</li> <li>■ Support the development of WinS infrastructural standards, and capacities to monitor/enforce these strengthen linkages between the mandated entities for maintenance (e.g. school or service authority) and maintenance service providers and spare parts suppliers Test WinS maintenance arrangements.</li> </ul>
<p><b>3</b> Regulation Accountability</p>	<ul style="list-style-type: none"> <li>■ Clarify stakeholder roles and responsibilities and ensure these are formally incorporated into job descriptions and institutional mandates, and that all stakeholders understand them.</li> <li>■ Support the establishment and operationalisation of service quality standards for WinS, and demonstrate processes for monitoring and enforcement, including inter-school</li> <li>■ Encourage students and parents to hold the mandated entity (e.g. school management or service authority) to account for poor services. Encourage forums where such stakeholders can have a dialogue on WinS issues</li> </ul>



<b>4 Planning</b>	<ul style="list-style-type: none"> <li>Strengthen cross-sectoral planning for WinS, and support the relevant service authorities to adapt national WinS targets to their particular context, and develop strategic plans to achieve and sustain universal access to WinS across the district (or equivalent); (note: these may be sub-plans of a wider WASH or Education Plan). Ensure that plans include specific measures to address gender, equity and inclusion issues.</li> <li>Support schools to plan for the O&amp;M of WinS infrastructure</li> <li>As an intermediate step, and in cases where government support is limited, schools can be supported through a guided self-assessment and planning process for incremental WinS improvements together with other local actors like parent teacher associations, students and maintenance service providers. Innovative approaches such as the “Toilets making the Grade”® (040610) may be useful.</li> </ul>
<b>5 Finance</b>	<ul style="list-style-type: none"> <li>Advocate for specific budgets for WinS in funds from local or central government allocations</li> <li>Support schools and service authorities to understand of WinS infrastructure and hygiene promotion and hygiene consumables (see Topic 0304), and advocate for the inclusion of direct support costs (e.g. monitoring, refresher training and coordination) in budgets</li> </ul>
<b>6 Monitoring</b>	<ul style="list-style-type: none"> <li>Support the definition of WinS monitoring indicators and demonstrate and operationalise protocols for recurrent monitoring by the service authority and in schools’ reporting arrangements</li> <li>Support monitoring and information capacities of the service authority, and strengthen the flow of monitoring data between sectors (e.g. education, health, water) and between levels in the system</li> </ul>
<b>7 WREM</b>	<ul style="list-style-type: none"> <li>Introduce environmental issues, such as solid waste management, catchment protection, ecological sanitation and rainfall and yield monitoring into the curriculum (local or national) and demonstrate approaches for this. For an example of this, see the Participatory Hygiene and Nutrition Education Approach being applied in Malawi (040612)</li> </ul>
<b>8 Learning</b>	<ul style="list-style-type: none"> <li>Support and engage in multi-stakeholder platforms at different levels in the system that share and discuss learnings from different WinS actors. Strengthen information flows between the levels, and the linkage between monitoring and learning, and learning and strategy development</li> <li>Undertake studies on the sustainability of WinS and systemic risks, and disseminate findings widely</li> </ul>
<b>9 Demand Behaviour Political Will</b>	<ul style="list-style-type: none"> <li>Through targeted advocacy, strengthen political awareness and championing of quality WinS</li> <li>Build local ownership for management of WinS infrastructure by the community, students, teachers, maintainers and school management</li> <li>Strengthen the role of cleaners to become respected school stakeholders, whose work is valued.</li> </ul>

### C. RESOURCES (PAPERS, TOOLS, GOOD PRACTICE EXAMPLES)

There are few publications that specifically focus on WinS system strengthening. Resources below include examples of sustainability efforts in WinS of various organisations (040604 and 040605) and an adapted SSI checklist focussing on the WinS sub-sector (040601).

Type	Tool / Resource	Author, Date	Description
Tool	040601: WinS Building Block Checklist	SSI, 2018	A Building Block checklist that provides key indicators that should be assessed across the SSI’s nine building blocks when designing a WinS intervention.
Tool	040609: Three Star Approach for WASH in Schools	GIZ, UNICEF (2013)	The three-star approach is implemented through governments worldwide to ensure that healthy habits are taught, practised and integrated into daily school routines through (self-) assessment of essential criteria. It may be used for benchmarking.
Publication	040602 and 040603: Making WASH in Schools More Sustainable	SuSanA, 2014	Two case studies of efforts to improve aspects of sustainability of WASH in schools, although they may not look at this from a systems perspective, and the sustainability criteria is narrower than the nine SSI building blocks.
Publication	040604: Towards Effective Programming for WASH in Schools	IRC WASH, 2007	A detailed 93-page manual describing many of the elements required for scaling up programmes for WinS while ensuring quality and sustainability. Proposed interventions in this compilation can be implemented individually.
Tool	040605: Surveillance of WASH in Schools	WHO, UNICEF, 2019	Practical tool to support countries in strengthening WinS surveillance. The findings will inform development of supportive WinS regulations and improvement planning.
Toolkit	WASH in Schools Index	UNICEF & IRC, 2019	An online resource and database for WinS practice and theory. It includes numerous useful resources that can help you apply a systems strengthening approach.
Related Topic		SSI, 2019	Analysing the Life Cycle Costs of WASH Services and Determining Tariffs

In addition to the above, 040611 provides several additional publications and tools.

## STRENGTHENING SYSTEMS IN FRAGILE CONTEXTS

# 0407

### A. OVERVIEW OF THE TOPIC

Whilst much thinking in the global sector has been on strengthening, there has been limited considerations on how to apply systems approaches in fragile contexts. In such contexts, the WASH 'system' may be more 'humanitarian' in nature, which raises barriers and opportunities for systems strengthening, and influences the actors, factors and levels that are appropriate to focus strengthening efforts on.

Different stakeholders have different definitions of 'fragility'. OECD (2016) define it as *'the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. Fragility can lead to negative outcomes including violence, the breakdown of institutions, displacement, humanitarian crises or other emergencies'*. There are various (political, societal, economic, environmental, and security), which affect the WASH system – and the services it delivers – in different ways. Long-term thinking can be brought into humanitarian contexts (potentially with the exception of acute life-saving response) to help move from a cyclical humanitarian response and chronic fragility, to progressively improving the resilience and sustainability of WASH.

A key focus of the systems approach presented elsewhere in this toolbox is around strengthening government systems, especially (but not exclusively) at the localised ( ) level. However, in some fragile contexts, the reach and ability of government to function at the local level may be heavily constrained, making efforts to strengthen their capacities to oversee and support WASH services relatively ineffective. Nevertheless, in such cases there are a wide range of systems strengthening activities that could have a substantial impact on the sustainability of WASH services. These include, for example, strengthening capacity to sustain services without significant governmental support, reinforcing local private sector actors to provide maintenance and supply chain services, strengthening the bottom-up user-service provider accountability measures that are available to users in lieu of public sector regulation, and strengthening the humanitarian response elements of the system, to build resilience of WASH services and lay the foundations for government-led WASH sector leadership in future. Overall, in any context, there is some form of 'system' in place, albeit formal, informal, NGO led etc. The relative influence of different actors (e.g. traditional leaders, armed groups, governments, NGOs, UN etc) needs to be understood in each context.

Conventional WASH programming in fragile contexts can be adapted to strengthen systems and, likewise, the focus of systems strengthening can be altered to suit fragile contexts. This Brief provides a basic introduction on these issues, and provides further reading on the subject.

### B. COMMON PROCESS AND TIPS ON WHAT TO CONSIDER

Those seeking to strengthen WASH service sustainability and resilience in fragile contexts should consider the following:

- Expand the scope of 'needs assessments' in humanitarian contexts to understand the wider system within which interventions will operate in. In non-acute response phases, take time to analyse (collaboratively with other actors) the wider WASH system, barriers (and opportunities) for sustainable services, key stakeholders, and potential strategic partnerships. In this, move beyond humanitarian needs assessments.
- Review how humanitarian programming could be done in a way that strengthens (rather than bypasses) permanent systems (see examples below). Also consider how a humanitarian response may undermine longer-term sustainability efforts (e.g., providing free water or alternative sources in a town with a water utility), and adapt approaches accordingly. Engage donors to discuss how they can support such adapted ways of working and engage other actors in the sector to adapt their actions to increase coherence in the sector.
- Mainstream resilience, emergency preparedness and disaster risk reduction into development-focused programmes (see below for examples).
- Consider how systems strengthening efforts may be undermined during 'shocks' and episodes of fragility, and implement mechanisms to mitigate such issues. In this, seek to strengthen the resilience of the WASH system, not only the services that it provides. For example, by considering how knowledge, capacities and processes at the service authority and service provider levels would continue despite the turnover of formerly trained personnel.
- Strengthen the country's WASH humanitarian sub-sector in terms of the effectiveness of coordination, knowledge management, alignment and harmonisation of approaches of WASH actors, and strengthening dialogue between humanitarian and development partners. See examples below.

Examples of how organisations can strengthen various  
the WASH system in fragile contexts include:

of

0407

<b>1</b> <b>Institutions</b>	<ul style="list-style-type: none"> <li>Strengthen humanitarian coordination platforms, alignment of the activities and approaches of humanitarian agencies, and their interface with longer-term development actors and platforms</li> <li>Strengthen capacities of WASH service providers, government and volunteers on humanitarian response</li> <li>Strengthen service provider capacities to endure 'shocks' and HR turnover, and be less externally reliant</li> </ul>
<b>2</b> <b>Infrastructure</b>	<ul style="list-style-type: none"> <li>Development, introduction and demonstration of disaster-resilient infrastructure designs, and developing infrastructure in humanitarian response that meets government (not only SPHERE) service standards</li> <li>Build local supply chains and maintenance services, and encourage other humanitarian actors to use them. Procure NFI kits locally, or provide vouchers redeemable at local stores, to build supply chains</li> <li>Test and demonstrate service delivery models for water supply and sanitation services in camp settings</li> </ul>
<b>3</b> <b>Regulation Accountability</b>	<ul style="list-style-type: none"> <li>Test and strengthen models for accountability and oversight of WASH service provision that are not overly reliant on the state, for example by users and through traditional leadership</li> <li>Understand the mandates for regulation in the sector, and aim to engage and strengthen these. Where agencies and donors are supporting utilities, support can be contingent on performance indicators or accountability measures - this could also allow some (temporary) accountability of the utilities in lieu of formal (e.g., government) accountability and regulatory frameworks</li> </ul>
<b>4</b> <b>Planning</b>	<ul style="list-style-type: none"> <li>Support government-led planning processes, which mainstream resilience and emergency response into longer-term WASH service plans, and strengthen the humanitarian-development interface in sector planning. Strengthen government-led coordination platforms for greater NGO alignment with govt. plans</li> <li>Utilise and encourage stakeholder alignment in sector plans during humanitarian response</li> </ul>
<b>5</b> <b>Finance</b>	<ul style="list-style-type: none"> <li>Support life cycle cost analysis in camp settings, and engage stakeholders to define progressive arrangements for longer-term more sustainable WASH service financing</li> <li>Advocate donors in-country for more connectedness between humanitarian and development financing</li> </ul>
<b>6</b> <b>Monitoring</b>	<ul style="list-style-type: none"> <li>Use humanitarian needs assessments to create area-wide datasets such as asset inventories, WASH service levels, drought vulnerability, etc</li> <li>Support the development or strengthening of sector-wide assessment and monitoring frameworks and tools, and encourage all humanitarian actors to utilise these and feed government databases</li> <li>Support the definition of sustainable financing arrangements for WASH monitoring</li> </ul>
<b>7</b> <b>WREM</b>	<ul style="list-style-type: none"> <li>Develop and institutionalise long-term hydrological monitoring processes in drought-prone areas</li> <li>Develop, demonstrate and build capacities for climate and disaster-resilient infrastructure and services</li> <li>Ensure water resources planning considers humanitarian needs, and that humanitarian responses consider and utilise existing water resources plans</li> </ul>
<b>8</b> <b>Learning</b>	<ul style="list-style-type: none"> <li>Strengthen platforms and systems for information and knowledge management in the sector, and encourage humanitarian actors to share their assessments and reviews with the wider sector</li> <li>Encourage and support WASH coordination platforms to have a learning and review agenda item</li> <li>Support the integration of humanitarian and development WASH topics within national sector reviews</li> </ul>
<b>9 Demand Behaviour Political Will</b>	<ul style="list-style-type: none"> <li>Use opportunities of epidemics and camp settings to encourage durable hygiene practices, such as handwashing, household water treatment, and also to raise demand for better WASH service standards</li> <li>Encourage harmonisation of NGO approaches to selecting, training and utilising local hygiene promoters</li> </ul>

### C. RESOURCES (PAPERS, TOOLS, GOOD PRACTICE EXAMPLES)

The SSI, together with other NGOs (such as Oxfam and Water for Good) is currently (as of February 2020) developing a paper on WASH systems strengthening in fragile contexts. When this is available, the link will be made available at [040705](#). The table below provides wider reading material on WASH in fragile contexts, and some practical examples of systems strengthening.

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">040701</a> : Delivering Water Supply and Sanitation in Fragile States: The transition from emergency to development	The World Bank, 2011	A briefing note capturing the main points and messages from a conference that brought together water supply and sanitation sector actors to develop action plans for resolving the capacity conundrum and transitioning the water supply and sanitation sector from emergency interventions to country-led development programmes.
Publication	<a href="#">040702</a> : Making humanitarian and development WASH work better together	ODI, 2016	A paper examining the interface and structural and cultural barriers that preclude greater synergies between development and humanitarian WASH programming. It provides a series of recommendations which can be useful in country programming and advocacy efforts.
Publication	<a href="#">040703</a> : Water under fire: For every child, water and sanitation in complex emergencies	UNICEF 2019	A report summarising the status and key challenges for WASH services in fragile contexts, with a focus on conflict settings. It includes a series of case studies from South Sudan, the Syrian Arab Republic, Ukraine, Bangladesh, Yemen and Nigeria.
Publication	<a href="#">040704</a> : Linking relief and development in the WASH sector	German WASH Network 2014	A paper looking at the transition from humanitarian to development WASH programming, and how this can be done to strengthen the WASH humanitarian-development 'nexus'.
Video	<a href="#">Sustainable WASH services for complex emergency countries</a>	Water for Good, 2016	A video presentation on Water for Good's approach to rural water supply maintenance in the Central African Republic.

## MOVING BEYOND 'BASIC' COMMUNITY-BASED MANAGEMENT

## 0408

## A. Overview of the topic

(CBM) remains the predominate (SDM) for rural water supply in most developing countries and is normally based on volunteer community members taking responsibility for all aspects of operation and maintenance (O&M). CBM is referred to as 'basic' when the voluntary committee does not receive ongoing external support. Basic CBM faces many challenges, including turn-over of members, conflict, financial mis-management (actual or perceived) and inadequate technical, administrative and organisational skills to keep the water supply facility working. Without on-going external support and reliable financing, the majority of basic CBM-run schemes will face challenges, continue with a 'fix-on-failure' mentality, leading to eventual breakdown and service failure.

But 'basic' CBM is only one of that are applied in different contexts for rural water supply. The challenge in many contexts is to support the shift from 'basic', to more professionalised approaches. Recent experience with guaranteed service provision supported by professionalised **maintenance service providers** (see 040804) have shown promising results, but are often still piloted at a limited scale. This Topic Brief summarises the different management models for rural water supply services, provides examples of how to professionalise CBM, and considerations for testing alternatives.

## B. Common process and tips on what to consider

Those seeking to **move beyond 'basic' CBM**, to more , may consider the following:

- **Trainings and support to the committees** should move beyond 'conflict management and minute keeping' to consider more 'advanced' issues such as tariff setting (see Topic 0304), business planning, asset management, water safety planning, non-revenue water management, customer service, etc.
- CBM can be strengthened by **ensuring more organised and effective ongoing external support**. This could be achieved through various means, such as:
  - Establishing structured and regular external support to committees ( ) from or other entity mandated for such support. This includes ensuring CBM providers are legally registered; strengthening the protocols and capacities to provide routine, structured performance monitoring and support and; ensuring government budgets are allocated for this on an ongoing basis (see Topic 0304 on how to determine these ).
  - Where appropriate, aggregating individual CBM entities and forming a higher-level structure across a group of voluntary committees to provide specialist support, economies of scale and stronger representation, often achieved by creating associations of CBM committees.
  - Where appropriate, developing capacities and modalities to allow certain committee functions to be delegated to local private sector actors (e.g. kiosk management, billing, revenue collection, maintenance, etc), under clear, transparent and performance-based contracts.
  - Where possible, linking committees with professionalised maintenance service providers (see 040804), and encouraging them to have formal agreements for preventative maintenance services, based on a fee for service. A typology of has been produced.

Another approach is to **establish or test a new SDM**, which takes over management and O&M functions (or any combination of these). Various examples exist and are becoming more common (see Figure 10). The community typically retains a role in either governance, representation or for specific tasks (e.g. tariff collection or reporting faults). When establishing/testing a new SDM, you should consider the following:

- SDMs do not exist in isolation – it is critical to understand the and the elements that can support or undermine any proposed SDM. Critical factors include commercial viability; local capacity and technical complexity; existing regulations and accountability mechanisms; and localised dynamics such as water resources and population density (040802 provides more detail here);
- Work closely with national and local governments to ensure that the proposed SDM is aligned with policies and guidelines and has official backing, and monitor pilots together; all of these aspects are critical to future scaling up (see Topic 0502).

### C. Resources (papers, tools, good practice examples)

Figure 10 provides an overview of some of the more common models that seek to professionalise CBM and to move beyond this as the only model for rural areas.

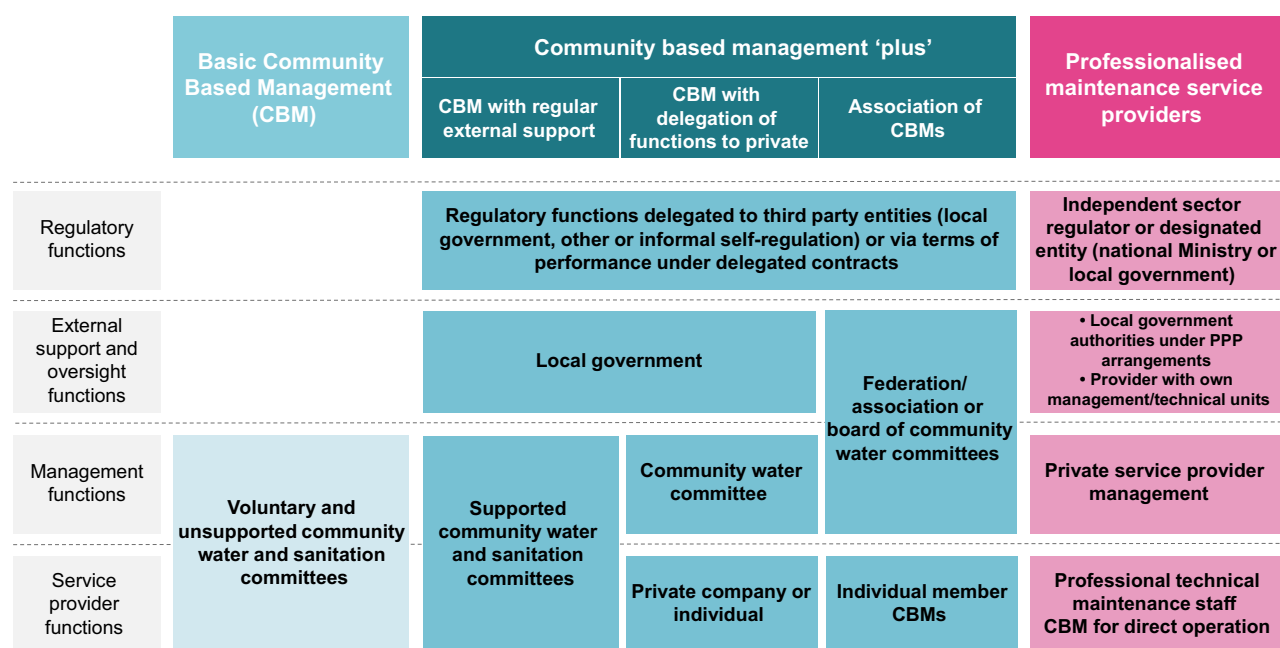
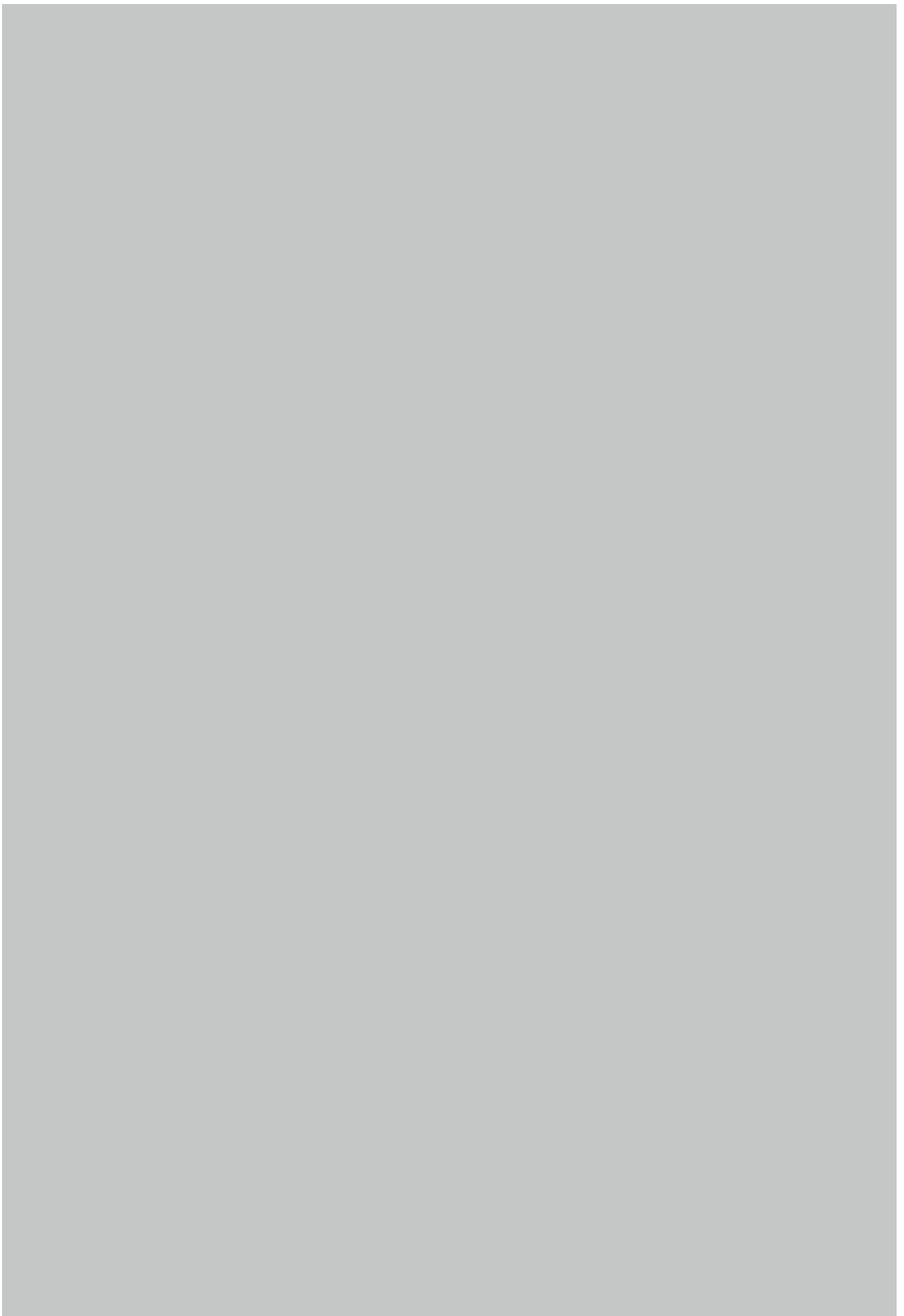


Figure 10: Typology of SDMs for rural water supply services

There is currently a lack of practical guidelines or tools for actors seeking to implement or pilot new SDMs. Information on the limitations of CBM, and professionalising CBM, can be found in [040803](#). A more detailed overview of SDMs, including variances of CBM, and other SDMs, case study examples, and factors which may influence their viability in particular context, is provided in [040802](#). For an overview of professionalised maintenance models, see [040804](#).

Type	Tool / Resource	Author, Date	Description
Video	<a href="#">What if...?</a>	IRC, 2012	A 6-minute video on a fictitious district that illustrates many of the challenges associated with the status quo approach of managing WASH facilities under the basic CBM approach.
Publication	<a href="#">040803: Professionalising community-based management for rural water services</a>	IRC & Agua-consult, 2017	An 8-page briefing note on the evidence that greater professionalisation of rural water services is an effective means of improving performance.
Video	<a href="#">Sustainable WASH Services for Complex Emergency Countries</a>	Water for Good	A 11-minute outlining Water for Good's work strengthening the WASH system in the Central African Republic. It details their work providing post-construction support to 25 percent of the hand pumps in the Central African Republic and the impact this is having on functionality rates.
Publication	<a href="#">040801: Direct post-construction support to service providers</a>	IRC, 2015	An 8-page briefing note on direct post-construction support from service authorities to service providers (e.g., performance monitoring, technical advice, administrative and organisational support, conflict resolution and training, etc.).
Publication	<a href="#">040802: Management models for piped water supply services</a>	WaterAid, 2018	A globally applicable, 58-page generic guide designed to aid WASH practitioners in the selection of appropriate management models for piped water supply systems in rural and small-town contexts.
Publication	<a href="#">040804: Sustaining rural water: maintenance service provision models for community-managed schemes</a>	USAID/SWS IRC, Agua-consult 2019	A comparative study reviewing a range of existing and newly emerging approaches to providing maintenance services for rural water systems operating under CBM.
Related Topics		SSI, 2019 SSI	Analysing the Life Cycle Costs of WASH Services Sector Learning, Dissemination and Upscaling.

For additional publications on moving beyond CBM, see [040812](#).



## POST IMPLEMENTATION MONITORING: ASSESSING SERVICE LEVELS AND LONG-TERM SERVICE DELIVERY

# 0501

### A. Overview of the topic

The direct monitoring of project activities and outcomes is typically limited to its lifespan and normally geared towards reporting progress for managers and external funders. Implementing NGOs or donors sometimes commission ex-ante evaluations, but in most cases no further financing is available and monitoring ceases at the closure of a project. However, given the scope of the sustainability challenges facing the WASH sector (see 0102), some organisations have incorporated into their programmes and some donors (e.g., DGIS, USAID) are pushing for greater PIM to identify and address sustainability challenges.

Post-implementation monitoring refers to an internal process conducted by development organisations (often through third parties) to highlight issues in the sustainability and effectiveness of their interventions. It is an important process that enables organisations to learn and adapt programming approaches and to ensure that they are more sustainable moving forwards (see 0502).

However, while PIM can provide valuable insights for implementing organisations, it is often delinked from the overall functioning of the . As such there is an inherent tension in creating parallel monitoring processes, especially at the district level, which may even undermine efforts to develop strong government-led monitoring systems (see 0401). In an ideal scenario, individual NGO PIM efforts would not be required, as the same issues would be captured by permanent and comprehensive government-led monitoring systems. Recognising these limitations, this topic briefs covers PIMs, and details important processes to consider when incorporating it into a development programme.

### B. Common process and tips on what to consider

Several international NGOs, including WaterAid (050104), Water for People (050105) and UNICEF (050102), have developed PIM frameworks. While there are variations between these examples, they follow a common two-stage process. First, a statistically significant number of WASH facilities and service authorities are surveyed against:

- **Service levels:** assessed against guidelines for quality, quantity, accessibility and reliability as well as the sustainability of behavioural change and newly created social norms;
- **Service providers:** whether they are still in place and assessment of their capacity (financial, technical, management) to ensure the effective day-to-day operation and management of the WASH facility; and
- **Service authority:** fulfilment of planning, coordination, budgeting and regulatory functions as well as post-implementation support (e.g., refresher training and targeted support) to service providers

For an example of the indicators surveyed by WaterAid for rural water points during this first stage, see . Second, following the initial monitoring activity, a more rigorous investigation is conducted into the key issues identified by the first investigation to gain a more in-depth understanding of the factors causing these sustainability challenges. This process varies depending on the issues identified but typically involves detailed investigations at the household, , and even national levels. It can also incorporate other assessments such as a political economy analysis (0401). When undertaking PIM, it is important to consider the following:

- For the first stage of the PIM, wherever possible ensure that indicators are based on those used in national monitoring frameworks or detailed in policy documents. This is critical to ensure that PIM efforts support – instead of duplicate – those being conducted by governmental actors and that data aligns with local and national monitoring databases.
- Post implementation monitoring often carries more weight when performed by a third party; where feasible, employ a national company to be build national capacity in this area.
- Involve service authority staff in PIM; this will make it easier to feed the data into local and national datasets and for the service authority to internalise key lessons.
- The most valuable lessons often arise through failures. Honestly report any issues identified in relevant platforms at the national and local level to ensure other organisations learn from your challenges (see 0502).

- Some donors have started stipulating that PIM needs to be included in any WASH programmes that they are funding (e.g., DGIS, USAID). However, for many donors, funding for PIM will need to be advocated for from the beginning of the proposal writing stage.
- Utilise data collection tools such as [mWater](#) (free to use) or [AkvoFlow](#) to reduce data collection costs and quickly analyse and share data.

### C. Resources (papers, tools, good practice examples)

In recent years, PIM has received significant attention, and several organisations have produced documents outlining their approaches. Notably, the guidance produced by WaterAid (050104) and UNICEF (050102) are particularly informative. Additionally, WHH has issued a set of WASH indicators, which includes the monitoring of service providers and service authorities (050103). In addition to these, several tools have also been developed for PIM, and these include the [Sustainability Index Tool](#), which provides a set of institutional, financial, technical, management, environmental indicators to assess the likely sustainability of WASH interventions at the household, service provider, service authority and national levels.

Type	Tool / Resource	Author, Date	Description
Publication	<a href="#">050101</a> : Rural Water Metrics Global Framework	World Bank/ Aguaconsult 2017	This paper proposes a global set of indicators that need to be contextualised to country contexts. Three levels of metrics are presented for each indicator: minimum, basic, and advanced to ensure that the framework is applicable to different country contexts.
Publication	<a href="#">050102</a> : Sustainability Checks	UNICEF, 2017	This paper provides guidance on how to design and implement sustainability monitoring in WASH to obtain information about the state of functionality of water facilities as well as the level of adherence to social norms and behavior change required to stop open defecation and construct toilets.
Publication	<a href="#">050103</a> : WASH Indicator Menu and Log frame Support	WHH, 2019	An indicator compilation including service delivery and WASH sustainability indicators as well as indicators for menstrual hygiene management, WASH and nutrition, waste management, WASH and climate change and emergency WASH.
Publication	<a href="#">050104</a> : Monitoring Sustainability at WaterAid – Post-Implementation Monitoring Surveys	WaterAid, 2016	A poster providing a summary of WaterAid’s approach to PIM. It details the importance of PIM, the indicators used by WaterAid, and the benefits WaterAid has experience of using mobile data collection for PIM.
Publication	<a href="#">050105</a> : Water for People: Monitoring Framework	Water for People	The monitoring framework utilised by Water for People. It includes a range of indicators for different WASH interventions that are grouped under Everyone (looking at the current service levels being provided and WASH practices at the community level) and Forever (focusing on the performance at the service authority and service provider levels).
Tool	<a href="#">WASH Sustainability Index Tool</a>	USAID/Rotary International/ Aguaconsult 2013	An online open-source diagnostic tool designed to assess the likely sustainability of WASH interventions. It contains a process guide with embedded resources, reading and video clips as well as downloadable excel sheets with example indicators for different intervention types. A podcast on the tool is available here.
Publication	<a href="#">IRC Symposium 2013: Monitoring sustainable WASH service delivery</a>	IRC and various 2013	Presentations, articles and a book capturing the outputs of the Monitoring Sustainable WASH Service delivery Symposium, held in Addis Ababa
Video	<a href="#">Checking and Monitoring the Sustainability of WASH Services</a>	IRC, 2016	A short video on monitoring the sustainability of WASH services. It covers a range of topics, including UNICEF’s sustainability checks and the issues with the status quo monitoring approaches of implementing partners.
Podcast	<a href="#">Monitoring Systems Change</a>	IRC, 2017	A podcast on monitoring systems change, including a presentation on why we need to be monitoring for systems change and how to do this effectively.
Related Topics		SSI, 2019	Project design National monitoring systems



## SECTOR LEARNING, DISSEMINATION AND UPSCALING

## 0502

**A. Overview of the topic**

The ability of a sector to learn and adapt is in itself an important part of a strong WASH system. Because learning can take place at different levels, it is important to consider how positive lessons from local (e.g. level) initiatives are disseminated and scaled up to maximise an intervention's impact. And the learning around it, on the wider sector. *Agenda for Change* (which WHH is a member of) places considerable emphasis on 'testing locally, demonstrating and influencing nationally and globally'.

Strengthening learning and adaptation within the sector helps individuals within the system learn from each other and can build a sense of collaboration and trust between organisations and individuals. It avoids programmes continuously 'reinventing the wheel' and helps the sector to progressively evolve based on accumulated experiences. This topic brief focusses on the process and practice of disseminating and upscaling local initiatives to the wider (national) sector from the perspective of a programme of an NGO and provides examples of efforts to strengthen the 'Learning & Adaptation' aspect of the WASH system.

**B. Common process and tips on what to consider**

- When testing new approaches – including pilots – with the aim of upscaling, ensure strong monitoring and (potentially external) validation of findings, to add credibility to sector recommendations. From the outset, consider how the innovation or new approach would be sustained, institutionalised and upscaled.
- The most valuable learning often arises through failures. Although there is resistance to openly sharing failures because of competition for funding, it can make recipients more open to listening, and can encourage others in the sector to start to share.
- Consider the most effective means through which to share learnings: considering the target audience, preferred communication medium and ways people access information locally.
- Involve key stakeholders from the outset, to build ownership of the pilots and the learning arising from them. Carefully consider who should present the learning, and how learning products are branded, to maximise sector acceptance and ownership.
- Collaborate with others. In sector advocacy and influencing, the joint voice of many organisations is often more powerful than the voice of a single organisation. Organisations should use networks and collaborations with other organisations, for example country-level engagement with *Agenda for Change*, *SWA* and *Alliance 2015*. See Topic Brief 0202.
- Efforts to strengthen sector learning processes will vary by context, but some (non-exhaustive) examples include: supporting a 'learning agenda item' into WASH coordination meetings; engaging in/supporting Joint Sector Review and Sector Working Group activities; strengthening knowledge management and access to documents in the sector; establishing or strengthening learning alliances (050205); peer to peer exchange visits, and supporting the 'upwards and downwards' flows of information and learning between different levels in the sector (e.g., national and district).

**Testing locally, influencing nationally, Nepal.**

The WHH SSI programme in Nepal seeks to test approaches to local government WASH planning and systems strengthening. With 753 local authorities nationwide, and the SSI programme implementing in only four of these, WHH seeks to demonstrate approaches which can be then upscaled by others, ideally through adoption into national government policies and guidelines.

At the start of the initiative, WHH invited a group of organisations in the sector to a workshop, to introduce the programme objectives, and encourage collaboration with others working on similar issues. An email group was established, and national-level workshops were convened by WHH every six-months or so, to present progress and learning from the SSI programme, and also encouraging other organisations to present their approaches. This led to greater dialogue in the sector on local WASH planning and to the Government proposing to establish a consultation group to review its draft national guidelines for the development of local government WASH plans, in which WHH (and others) provided inputs.

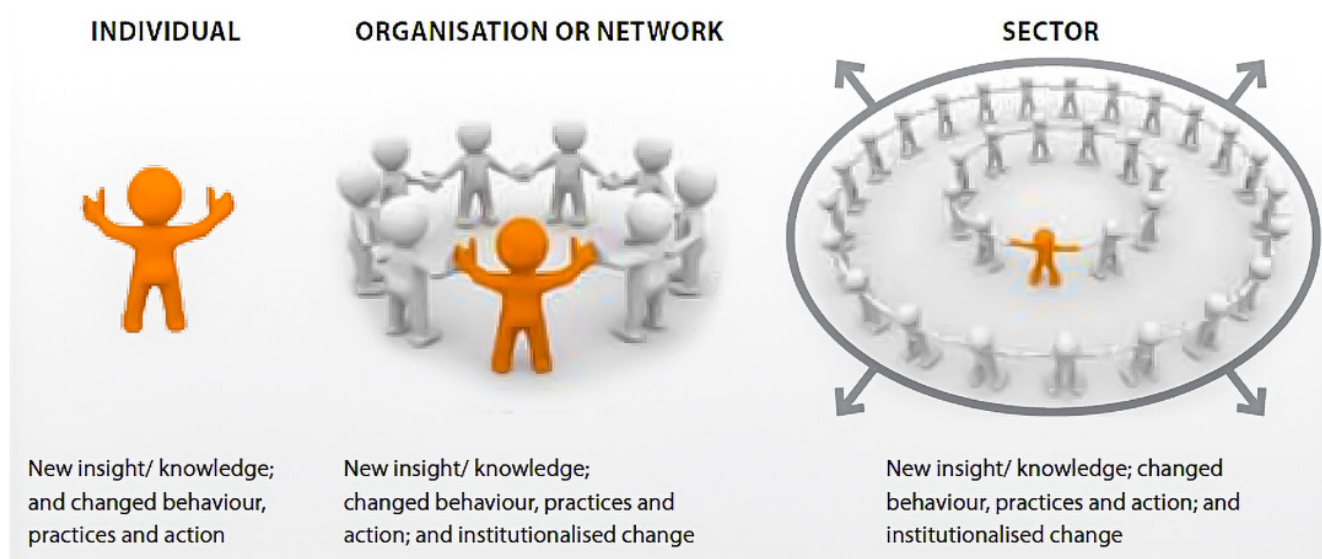



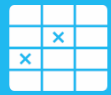







Figure 11: Learning effects: from individual learning to sector-level change. Source: IRC 2012

The topic briefs on advocacy (0202) and programme design (0203) touch on issues such as the use of networks for wider sector influencing, and considerations for designing a WASH programme to include a sector learning component. Strengthening sector learning processes within countries has been a focus of IRC for many years, who have a specific webpage relating to [learning alliances](#). *Agenda for Change* also places a lot of emphasis on learning and knowledge management. More theoretical guidance on upscaling pathways is provided by Worshan et al (050207), and the table below provides some examples of national workshop slide decks from the WHH Nepal SSI case study.

Type	Tool / Resource	Author, Date	Description
Video	<a href="#">Learning alliances</a>	IRC, 2019	A two-minute video summarising the purposes and concepts of learning alliances. Other related videos from IRC include: <ul style="list-style-type: none"> <li>■ <a href="#">Sector learning in various countries</a></li> <li>■ <a href="#">The contributions of learning alliances</a></li> <li>■ <a href="#">Challenges</a></li> <li>■ <a href="#">Get sector learning on the agenda</a></li> <li>■ <a href="#">Indicators of success</a></li> <li>■ <a href="#">Improving WASH sector learning</a></li> <li>■ <a href="#">Lessons learned</a></li> </ul>
Powerpoint	<a href="#">050201</a> : Rural Municipality Wide Approach	SSI, 2018	A powerpoint slide deck presented at the first national-level stakeholder workshop in Nepal, aiming to socialise the Systems strengthening programme, to garner sector interest and ownership (see text box above).
Publication	<a href="#">050202</a> : How to use learning alliances to achieve systems change at scale	IRC, 2019	A working paper setting out the thinking behind IRC's use of learning alliances. The paper offers a practical guide on how to adopt the approach and build a change hub to support it, and discusses examples from Ghana and Uganda.
Podcast	<a href="#">Learning alliances as a tool for fostering change</a>	IRC, 2019	A short podcast detailing why learning and adaption is essential for a strong WASH system.
Publication	<a href="#">050203</a> : Joint Sector Reviews	World Bank / Skat, 2016	A 94 page document (with a five page summary) on experiences for effective Joint Sector Reviews for WASH in various countries.
Publication	<a href="#">050204</a> : Scaling Pathways: Insights from the field on unlocking impact at scale	Worsham et al, 2017	A 22 page document summarising experiences (and challenges) of scaling social enterprises.
Related Topics		SSI SSI	Advocating for investing & collaborating in system strengthening Project design or adaption to include systems strengthening

In addition to the above, [050209](#) provides further resources on this topic.

## GLOSSARY

<b>Actors</b>	Refers to a stakeholder that directly or indirectly influences the WASH system. Actors may be specific individuals or organisations (e.g., water operators, health extension workers, water committees, nongovernmental organisations and government agencies) or international entities with less direct links to the local system.
<b>Actors and factors</b>	Refers to the complex network of human and non-human elements that make up a system.
<b>Benchmarking</b>	Refers to the ranking of performance against prescribed criteria, and encouraging competition between schools.
<b>Building Blocks</b>	<p>Refers to the conceptualisation of a WASH system into nine building blocks to reduce complexity to a manageable level:</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="width: 30%; text-align: center;"> <p><b>1</b></p>  <p><b>Institutional Arrangements &amp; Coordination</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>4</b></p>  <p><b>Inclusive Planning</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>7</b></p>  <p><b>Water Resources &amp; Environment</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>2</b></p>  <p><b>Service Delivery Infrastructure</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>5</b></p>  <p><b>Finance</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>8</b></p>  <p><b>Learning &amp; Adaptation</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>3</b></p>  <p><b>Regulation &amp; Accountability</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>6</b></p>  <p><b>Monitoring</b></p> </div> <div style="width: 30%; text-align: center;"> <p><b>9</b></p>  <p><b>Demand, Behaviour &amp; Political Will</b></p> </div> </div> <p>Please find further details in Topic Brief 0302</p>
<b>Community Based Management</b>	Refers to the service delivery model where communities have been delegated responsibility to operate and manage water facilities. This option includes many variations from purely voluntary committees, to those with systematic support, to those outsourcing tasks to individuals and even private companies, but where the community retains governance and oversight.
<b>Factors</b>	Refers to a non-human element, aspect, or component of a system that directly or indirectly influences system functioning or outcomes.
<b>Life Cycle Costs</b>	Represent the disaggregated costs of ensuring the delivery of an adequate, equitable and sustainable WASH service level to a population in a specified area, including capital expenditure, operational and minor maintenance expenditure, capital maintenance expenditure, cost of capital, expenditure on direct support and expenditure on indirect support.
<b>Capital Expenditure</b>	Refers to the capital invested in constructing water facilities such as boreholes, pumps, reservoirs and pipes. It includes the first time the system is built, extension of the system, enhancement and augmentation. CapEx software includes one-off work with stakeholders prior to construction or implementation, extension, enhancement and augmentation.
<b>Operational and minor maintenance expenditure</b>	Refers to expenditure on minor repairs, labour, fuel, chemicals, materials, or regular purchases of bulk water.
<b>Capital Maintenance Expenditure</b>	Refers to expenditure on asset renewal, replacement and rehabilitation costs. Capital maintenance expenditure is typically more 'lumpy' than operational and minor maintenance, with infrequent but relatively large items of expenditure on large items (e.g. replacing generators, pumps of storage tanks or occasional emptying of latrines).
<b>Cost of Capital</b>	Refers to the cost of borrowing or otherwise acquiring the resources to provide the assets needed for a service. This is made up of interest payments on debt and dividend payment to equity providers.
<b>Expenditure on direct support</b>	Refers to expenditure on support to local-level service providers, users or user groups. The costs of ensuring that local government staff have the capacities and resources to carry out planning and monitoring, to help communities when systems break down, to audit community management structures, to monitor private sector performance, to carry out regular hygiene awareness raising and so on.

## GLOSSARY

<b>Expenditure on indirect support</b>	Refers to expenditure on government macro-level planning and policy-making, developing and maintaining frameworks and institutional arrangements, capacity-building for professionals and technicians through university course, technical schools etc.
<b>Leverage Point</b>	Refers to a conceptual place in a system where a small action or change can be expected to trigger a major shift.
<b>Political economy</b>	Refers to the driving forces and power dynamics within which a system operates. The term emphasises the fundamental link between politics and economics in determining what is possible in a given context. Of course, the political economy of a country is itself a system.
<b>Post Implementation Monitoring</b>	Post Implementation monitoring is a systematic way of assessing WASH service levels after the project period has ended to ensure services that last.
<b>Scale</b>	Refers to the temporal or spatial boundaries within which decisions are made. For example, a river basin, a country, a district and the coverage area of a water supply scheme are all different (and overlapping) spatial and administrative scales.
<b>Service Authorities</b>	Refers to the institution(s) with the legal mandate to ensure that water services are planned and delivered. Service authorities are usually, but not always, equated with local government, and not necessarily involved in direct service delivery themselves (although they may in some cases).
<b>Service Delivery Model</b>	Refers to the combination of management model at service delivery level (e.g., community-based organizations, private, public utility, etc.) and the necessary vertical legal, policy, institutional, regulatory and financing frameworks which support these management structures and allows them to function effectively.
<b>Service Levels</b>	Refers to definitions and agreed norms regarding expected service levels, typically expressed as minimum quantity, by quality parameters, and aspects such as reliability, accessibility and in some cases affordability.
<b>Service Providers</b>	Refers to the actor (which could be an individual, community committee, local government, public utility or private operator) that is responsible for performing day-to-day operations of a rural water supply scheme or an aspect of the operation of the scheme.
<b>System Strengthening</b>	Refers to taking actions and supporting interventions that are likely to strengthen one or more elements of a system including both a systems' actors and factors as well as their inter-relationships (i.e., political economy of decision-making, incentives and dynamics) to improve the quality and sustainability of WASH services and to ensure that all populations are served.
<b>Tariffs</b>	Funds contributed by users of WASH services for obtaining the services. In the OECD 3T typology, tariffs include two types of funding: Tariffs for services provided and households' out-of-pocket expenditure for self-supply.
<b>Taxes</b>	Funds originating from domestic taxes which are channelled to the sector via transfers from all levels of government, including national, regional or local. Such funds would typically be provided as subsidies, for capital investment or operations. "Hidden" forms of subsidies may include tax rebates, concessionary loans (i.e. at a subsidised interest rate) or subsidised services (such as subsidised electricity).
<b>Transfers</b>	Funds from international donors and international charitable foundations (including NGOs, decentralised cooperation or local civil society organisations) that typically come from other countries. These funds can be contributed either in the form of grants, concessionary loans (i.e. through the grant element included in a concessionary loan, in the form of a subsidised interest rate or a grace period) or guarantees.
<b>WASH System</b>	Refers to all the social, technical, institutional, environmental and financial factors, actors, motivations and interactions that influence WASH service delivery in a given context.

## IMPRINT

The **Sustainable Services Initiative** (SSI) is an internal initiative of Welthungerhilfe, in partnership with Aguaconsult and German Toilet Organization (GTO) and financially supported by Viva Con Agua (VcA). The SSI seeks to improve the sustainability of WHH's WASH programmes, primarily through encouraging the uptake of a systems strengthening approach on the part of WHH programmes, and to advocate in the sector and partner countries for a more sustainable approach to WASH programming.



In cooperation with local partners **Welthungerhilfe** (WHH) has developed a large, coherent and diverse portfolio of WASH activities in many low- and middle-income countries and in both humanitarian and development contexts. Putting the user first, addressing sustainability, converting needs into demand and promoting hygiene behaviour change to effectively block the transmission of diseases, are fundamental principles for WHH's work in providing WASH services that can make a successful impact on hunger and poverty reduction.



Aguaconsult is a UK based consulting company providing a range of technical assistance in the field of water and sanitation, and related aspects including decentralised service delivery, financing, policy research and reform, community organisation and business model development. We are a client-focussed organisation working in collaborative partnership with a wide range of rural and urban stakeholders from local to global, and from the public, private and non-profit sectors. Our extensive track record in the field of sustainable service delivery combines cutting edge knowledge with practical experience of ways to improve impact and the long-term legacy of investments.



The German Toilet Organization (GTO) is a German not-for-profit NGO, aiming to sustainably improve sanitation services and hygiene practices, protect human dignity, health and the environment. GTO combines its technical WASH expertise and experience in local project implementation with extensive knowledge of political processes and public relations. It has a focus on the development and dissemination of scalable concepts and tools that can be applied by multipliers and implementation partners around the world, always thriving to achieve the greatest possible impact for the entire WASH sector.



Viva con Agua (VcA) is a purpose-generating community, that changes the world with joy. VcA is based in Germany with affiliates in Africa. We aim to make the Human Right to Water and Sanitation a reality for everyone, everywhere through access to WASH services that last forever. We believe that empowered civil society movements and networks like ours can take collective action with like-minded organizations to meet this most basic of human needs. Our efforts focus on raising awareness and developing knowledge and skills so that people lacking WASH services can be actively involved and part of the solution rather than passive recipients. Viva con Agua has supported it's partners in the Sustainable Services Initiative since 2015 so that together we can transform donations into an investment in sustainable WASH services.

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