

2014 WASH SUSTAINABILITY FORUM

2014 WASH Sustainability Forum Initial Concepts

Prepared by the 2014 WASH Sustainability Forum
Track Leads and Organizing Committee

June 30 - July 1 • Amsterdam, Netherlands



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Overview

For the past several decades, sustainability has been one of the major challenges facing the WASH sector; however, change on the ground has been limited. Over the past five years, a series of events collectively referred to as WASH Sustainability Fora, has focused discussions on the growing concern for keeping services flowing and maximizing impacts. These events bring together a wide range of practitioners, policymakers and funders from around the world to advance sustainability thinking through a structured framework of learning and reflection. The series of WASH Sustainability Fora, starting in 2010, established a common theoretical foundation for sustainability, moving from broad concepts of service delivery to specific roles for stakeholders and the overarching principles that became the WASH Sustainability Charter.¹ While significant progress has been made through these events, many organizations still have difficulties translating broad discussions into programming. Additionally, these fora have seen a focus placed on sustainability for water services, with limited attention to sanitation and hygiene. Building off of the previous events², the 2014 WASH Sustainability Forum will provide a platform for introducing practical approaches and tools for applying sanitation, hygiene, and water sustainability principles.

What follows are three short overviews of WASH sustainability tools as they apply to the three tracks of the Forum, namely: Water, Sanitation, and Hygiene. While presented from diverse perspectives, these sections each address the meaning of sustainability for that sub-sector, the current state of tools, and the challenges, gaps, and opportunities moving forward. Additionally, they provide a framework for each track during the 2014 WASH Sustainability Forum, contextualizing the presentations and framing the starting point for discussions.

The 2014 WASH Sustainability Forum will be held in Amsterdam, Netherlands. The Forum is organized by SustainableWASH.org, a consortium of organizations including Aguaconsult, Global Water Challenge, IRC and WASH Advocates. Additional support in organizing this Forum has been provided by a wide array of expert track leads, identified below, as well as advisors including UNICEF, DGIS, and the World Bank's Water and Sanitation Program. The views expressed in this document reflect the perspectives of the individual track leads, and do not necessarily reflect the views of the organizing committee, Forum advisors, or other participants involved in the Forum.

¹ <http://sustainablewash.org/wash-sustainability-charter>

² <http://www.sustainablewash.org/wash-sustainability-forum-series>

Sanitation: Tools and Approaches for Sustainability

Track Leads: Evariste Kouassi-Komlan (UNICEF), Therese Dooley (UNICEF), Guy Norman (WSUP)

It is important to note that the recent tools mapping exercise conducted by Aguaconsult **Error! Bookmark not defined.** found that more sustainability tools have been developed to date for water supply than in the sanitation and hygiene arenas. Within sanitation, the team noted a particular gap – and therefore need – for tools developed for (or adaptable to) the urban and peri-urban sanitation contexts.

Defining Sustainability for Sanitation Services

In the context of sanitation, sustainability can be understood in two substantively different ways.

“Environmental” concepts of sustainable sanitation, as adopted by the Sustainable Sanitation Alliance (SuSanA) and the Water Supply and Sanitation Collaborative Council (WSSCC), see sustainability as going beyond the sanitation service itself, and also include requirements for protection of the wider environment; *“In order to be sustainable, a sanitation system has to be not only economically viable, socially acceptable, and technically and institutionally appropriate, it should also protect the environment and the natural resources.”*³ In its stronger versions, this concept of sustainability *requires* human excreta to be considered as a resource.⁴

By contrast, we can identify more limited “service level” concepts of sanitation sustainability, which do not include this requirement for contributing to a wider environmental sustainability of human systems. Adil Khan (2000) defines sustainability as, *“the ability of a project to maintain its operations, services and benefits during its projected life time.”*⁵ Along similar lines, the author cites a World Bank definition of sustainability as, *“the ability of a project to maintain an acceptable level of benefit flows through its economic life.”*

We favor the service level definition of sustainability, as it is more focused and useful for our purposes. While sanitation systems should be beneficial in terms of its net health, social, economic and environmental impacts, we suggest that it is not useful to include these requirements in the *definition* of sustainability. Rather, it’s more useful to focus our definition of sustainability on the ability of an

³ See for example http://www.susana.org/index.php?option=com_content&view=article&Itemid=27&layout=default&id=53:what-is-sustainable-sanitation

⁴ For example, the “Bellagio Principles for Sustainable Sanitation” agreed by the WSSCC during its 5th Global Forum in November 2000 are as follows: 1) human dignity, quality of life and environmental security at household level should be at the centre of any sanitation approach; 2) in line with good governance principles, decision making should involve participation of all stakeholders, especially the consumers and providers of services; 3) waste should be considered a resource, and its management should be holistic and form part of integrated water resources, nutrient flow and waste management processes; and 4) the domain in which environmental sanitation problems are resolved should be kept to the minimum practicable size (household, neighbourhood, community, town, district, catchment, city).

⁵ Adil Khan K (2000) Planning for and Monitoring of Project Sustainability: A Guideline on Concepts, Issues and Tools. UNDP.

intervention (a project, a program, a system) to maintain its benefits over time. Consider for example the reuse of human feces as a resource: this can be viewed as a “nice-to-have”, not an essential requirement for a sanitation system to be considered sustainable.

Tools for Sustainability of Sanitation Services

In their recent Triple-S tools mapping exercise, Schweitzer et al. (2014) consider a sustainability tool to be, “a methodology for understanding, measuring, or predicting sustainability.” We have adopted a similarly broad definition, considering a sustainability tool to be any tool or approach designed either to *evaluate* the sustainability of a given intervention or system, or to help *improve* the sustainability of any intervention or system. While reviewing the fascinating diversity of tools that were submitted to the Forum, we found it helpful to categorize the tools into three broad groups, as follows:

Sector Analysis Tools: These tools and approaches help to assess the WASH sector within a given jurisdiction (typically a country), often with the aim of identifying technical, financial, political or structural bottlenecks constraining progress. The tools may not focus exclusively on sustainability, but sustainable service delivery is typically at the heart of the “outcome state” that these tools aim to move towards. An example of the tool is the World Bank Water and Sanitation Program’s Country Status Overview (CSO), subsequently referred to as the Service Delivery Assessment (SDA) and the Monitoring Country Progress on Drinking Water and Sanitation Initiative (MAPAS).

Planning Tools: Planning Tools and approaches can support the planning of WASH interventions ranging from small NGO project interventions to major city-level or national WASH programmes. Again, while such tools may not focus exclusively on sustainability, they ultimately aim to move towards sustainable service delivery. These tools may focus on financial planning, or on other aspects. One specific example that relates to fecal sludge management in urban systems is the Interactive Septage Toolkit developed for a USAID-funded project in Dumaguete City in the Philippines. Another example is the financial planning tool developed by WSUP to support financial planning of urban sanitation systems in Dhaka in Bangladesh, designed to “help planners get a preliminary understanding of the affordability of different sanitation improvement strategies”. Yet another good example of a financial tool for planning is IRC’s well-known WASHCost Calculator.

Sustainability Scoring Tools: These tools and approaches are designed to assess the likely sustainability of a given organization, project or district. Unlike the other two categories, these tools focus specifically on assessment of sustainability, whether by predictive assessment or look-back assessment. Some examples include WaterAid’s Sustainability Snapshot Sustainability Snapshot and CARE’s Gift Tool. While “look-back” reviews are more challenging to complete, several organizations, such as WaterAid and Water For People, are conducting these types of reviews. UNICEF has created a good framework for these look-back reviews through the Sustainability Check Tool. Some organizations, such as Water For People, are even encouraging look-back assessments not only of the sustainability of previous Water For People interventions in a district, but also of the current functionality of all structures/services within

that district. This approach takes our focus off the specific projects of a particular NGO over a project lifespan, and forces us to focus on the district (or other administrative unit) as whole.

Challenges and Gaps for Sustainability of Sanitation Services

Several challenges still limit the feasibility of implementing tools focused on sanitation sustainability. First, as described above, the sanitation tool landscape is sparser than that of other sub-sectors, such as water. The result is fewer tools available to choose from, and less specialized tools to match diverse contexts. Beyond that, data collection can be a challenge. When considering cost data for the financial planning tools for example, it can be very difficult to get accurate cost data for a given time or geography. Finding data that can be extrapolated beyond geographies can be even more challenging. When looking at sustainability scoring tools, especially look-back reviews, additional challenges emerge. Implementing agencies, whether international NGOs or in-country service providers and governments, face very difficult challenges in setting up look-back sustainability assessments. This challenge is exacerbated when the look-back review is analyzing projects that other funders paid for many years ago. These challenges present an opportunity for the future development of tools to ensure sanitation sustainability.

Hygiene: Tools and Approaches for Sustainability

Track Lead: Julia Rosenbaum (USAID/WASHplus)

Defining Sustainability for Hygiene

For the hygiene track, and this overview paper, we have limited the “hygiene” definition to include only handwashing with soap (HWwS) and household drinking water treatment, safe handling and storage (HWTS), rather than a broader treatment of hygiene which could include food hygiene, menstrual hygiene, and compound hygiene including topics such as safe disposal of animal feces.

When applying concepts of sustainability to handwashing and HWTS, even more than water and sanitation, the focus is almost exclusively on sustaining consistent and correct practice – or sustained behavior change rather than on elements that support technology and the community, private and/or public sector systems that are so important to sanitation and water sustainability.

The literature on improving handwashing practice and then sustaining or maintaining practice suggests determinants such as social norms, policies, and presence of “enabling technologies” (like tippy taps and water treatment products) are the primary factors required to sustain behaviors rather than issues around functioning hardware, community maintenance and local governance. These technology and systems issues lie within the household domain rather than community or government. Availability of key supplies and spare parts, and willingness to pay also factor into the equation; as does sustained maintenance of technologies like handwashing stations (keeping them filled with water and soap) and water filters.

A review of formative research on handwashing in eleven countries, Curtis, Danquah and Aunger (2009) finds factors like disgust, social status, nurture and comfort drive handwashing practice, while fear of disease do not. HWwS practitioners are beginning to acknowledge that HWwS at the various junctures (before cooking and feeding, after defecation, etc.) may in fact have different motivators and determinants and should most probably be treated as distinct behaviors when planning evidence-based interventions. Treating them as distinct behaviors will most likely result in more impactful behavior change interventions and thus increase their sustained practice. A broad review looking at factors that influence the sustained adoption of clean water and sanitation technologies is about to be released and summarizes much of the available literature. (K Hulland, R Dreibelbis, N Martin et al, 2014, in press)

Turning to determinants of water treatment practices, a recent systematic literature review of behavioral research into household water treatment shows that there is very limited conclusive evidence on behavior change (Parker Fiebelkorn et al, 2012). The limited literature revealed that factors include:

- Self-efficacy (an individual’s own estimation of their ability to perform the behavior),
- Cost of the treatment product,
- Taste of the treated water,
- Whether currently practicing,
- Belief/perception that the water is dirty and needs to be treated, and

- Belief/perception that the water can make them or their children sick.

Another recent paper also revealed that the informal spread of the new behavior through social networks, i.e. social norms, appeared to play a strong influence in uptake of HWTS behavior among women in Malawi (Russo et al, 2012; Wood et al, 2012). Social and peer support, such as regular visits by community health workers to follow up on the behavior, have also been shown to be influential. (Wood et al, 2012).

Looking particularly at sustained practice of HWWS and HWTS, less is known. While the literature is replete with a variety of handwashing studies in (household), community, school and healthcare settings, none have been able to definitively document long-term behavior change, therefore challenging the sustainability of interventions and the ability to document factors influencing such sustainability.

Other literature reviews and best practices suggest the following as most influential in the sustained performance of HWWS and HWTS:

- Presence of enabling technologies, particularly a fixed handwashing station;
- Availability of spare parts or key supplies (e.g. filters and soap), ability and willingness to pay for related enabling technologies, like treatment methods and soap;
- Key knowledge (e.g. when and how to handwash, how to treat water and store safely, how to maintain containers); and
- Supportive social norms (e.g. pressure from those important to you think to do the behavior).

An emerging focus on habit formation points to the role of reflexive triggers to cue improved practice at a level beyond a mental cognitive process. We sit on the couch, turn on the television, and ‘reflexively’ want to eat potato chips. How can the same sort of reflexive triggers be used to support handwashing before eating or water treatment behaviors? Verplanken and Wood (2006) suggest that habits are formed through “repetition in a stable environment that is rewarded which promotes future repetition” and habits broken or changed through ‘disrupting the environmental factors that automatically cue habit performance’. Fixed handwashing stations and water storage and treatment technologies help serve as a reminder as well as create the stable context referred to by Verplanken and Wood.

Tools for Sustainability of Hygiene Services

Currently there are almost no tools that address sustainability in handwashing and hygiene.

The few tools found were monitoring and evaluation tools that include sustainability indicators, and a cost effectiveness tool also containing sustainability elements. The final tool highlighted in this track is developed to ease the burden of national and local governments to plan, manage and monitor HWWS interventions, thus supporting sustainable initiatives that outlive donor-driven programs, which too often last only as long as the funding is flowing into the project.

Challenges and Gaps for Sustainability of Hygiene Services

Probably the largest challenge facing the development of tools to support sustainability in HWWS and HWTS is clear evidence of precisely which elements support the consistent and correct practice of the behaviors over time.

As a part of a multi-step process, individuals and households must:

1. Value the practice;
2. See the benefits of performing the behaviors over time;
3. Acquire key knowledge;
4. Have consistent supplies; and
5. Feel community support/pressure to continue with improved behaviors.

Change actors, be they government, NGO or development partners, must have a long term commitment to supporting the programme elements associated with sustained behavior change, or social and peer support (e.g. regular visits by community health workers to follow up on the behavior) and media.

The final challenge is that too often programs are funded by donors for a set window of time. The funding source to conduct any sort of sustainability assessment has dried up before longer-term sustainability can be assessed. Perhaps national governments can begin insisting that such sustainability assessments are 'forward funded' to assure proper monitoring of sustainability and support the project to focus on elements associated with sustainable WASH.

Water: Tools and Approaches for Sustainability

Track leads: Stef Smits (IRC), Cecilia Scharp (UNICEF) and José Gestí Canuto (UNICEF)

Defining Sustainability for Water Services

There are numerous interpretations of the concept of ‘sustainability’ for water supplies. Many organisations define sustainability as the maintenance of the perceived benefit of investments after the end of the active period of project implementation. Building on the definition by Abrams et al. (1998)⁶ who describes sustainability as, “*whether or not something continues to work over time,*” it could be defined as whether water continues to flow over time, and whether it continues to provide an agreed level of service.

In the water sub-sector, two broad clusters of factors exist that affect whether water indeed keeps on flowing. The first cluster recognises that there are a number of dimensions that explain both the challenge of sustainability and explicitly identify a likelihood of sustainable services. For each of the dimensions (typically, including social, technical, economic, financial, institutional and environmental ones), factors are identified that contribute to sustainability. In their review of sustainability frameworks, Boulouar et al. (2013)⁷ found that many of the recent frameworks looked at those dimensions at community level, but also – though to a lesser extent – into bottlenecks at higher institutional levels, including districts and even national level policy frameworks. To some extent these frameworks are predictive in character; “if all the factors in the dimensions are complied with, the service is very likely to be sustainable.”

A second cluster starts from the premise that sustainability eventually manifests itself in the level of service received by users, i.e. the quantity, quality, accessibility and reliability of the supply. These not only describe whether the water flows, but also the characteristics of that flow. In turn, this cluster argues that the service levels depend on the performance in service delivery tasks at different institutional levels, typically covering: 1) the performance of the service provider (who carries out operation, maintenance and administration tasks), 2) performance of the service authority (responsible for planning, coordination, support and oversight roles) and 3) the national enabling environment entities (responsible for policy setting, monitoring, finance and regulation). These frameworks take more of a snapshot approach, and thus describe the current performance of a service – from which some inferences can be made on how this may evolve in the future, or gaps that need to be addressed to contribute to sustainability.

Tools for Sustainability of Water Services

With those two broad clusters in mind, we can identify a number of groups of tools:

⁶ Abrams, L., Palmer, I., and Hart, T. (1998). *Sustainability Management Guidelines*. Pretoria: Department of Water Affairs and Forestry.

⁷ Boulouar, J., Schweitzer, R. and H. Lockwood. 2013. *Mapping sustainability assessment tools to support sustainable water and sanitation service delivery*. Wivenhoe, UK: Aguaconsult

1. Tools to assess sustainability in a comprehensive manner covering all, or at least most, of the mentioned dimensions of sustainability. This is arguably one of the biggest groups of tools. Boulenouar et al. (2013) for example, in their review of tools, identified five sustainability tools, and the stated dimensions of sustainability covered. These tools serve often a purpose of monitoring a number of projects or systems in an area and come to an assessment of how many of these are likely, or not, to be sustainable, based on the comprehensive review of all the factors in the different dimensions.
2. Tools that only cover one of the dimensions of sustainability and are oriented towards identifying possible actions in that particular dimension of sustainability. For example, tools exist to improve the financial management or catchment management activities.
3. Tools that comprehensively cover service delivery performance. These types of tools derive from the second cluster and seek to take a snapshot of service delivery, including service levels and the performance on (almost) all the levels. These tools are very much directed at identifying where bottlenecks in service delivery are at which institutional level.
4. Tools to assess the performance at a single institutional level. These would include ones that for example only cover service provider performance, or only the enabling environment. They go to a higher level of detail than the previous ones and allow for taking more structural reform measures at that level.

These are broad groupings and some tools are in fact a hybrid. Most important to highlight though is that there are examples of more comprehensive ones (covering all dimensions or institutional levels) and deepening ones, zooming into a particular issue, and that there is a difference between ones that claim to be more predictive, and ones that seek to represent a performance at a given moment in time.

Challenges and Gaps for Sustainability of Water Services

A key challenge present in much of the work on sustainability tools for water supply is the balance between “being comprehensive” and “keeping it simple”. More comprehensive frameworks have easily around 100 indicators summing across all the levels. The reason for that is that sustainability simply depends on many interrelated factors. However, the more parameters are included, the more likely that not all information is reliably available – or it will be expensive to obtain it. Moreover, it makes it also more difficult to make sense out of 80 different indicators, some positive, and others negative. One solution commonly found for this problem is to work to some type of aggregate score or traffic light system. That may serve as a first alert, but will always require a deeper analysis of the underlying factors.

A related challenge is the balance between keeping the big picture and zooming in. The more comprehensive tools may allow one to get the big picture related to sustainability but are not always easily actionable. Results are not always easily understandable or actionable, especially with such a large number of indicators. On the other hand, the tools that zoom into a specific dimension of institutional level, will allow identifying actions for that specific issue. But they run the risk of not seeing how for example improvements in financial management will require actions in a different dimension (e.g. social aspects of sustainability). Probably, in many cases, there will be a need to combine the big picture tools (to identify where the main bottlenecks are) and the specific ones, to zoom in to an area of action.

As with any tool, the utility also depends on the institutional framework in which it is used. It is one thing to identify bottlenecks or sustainability challenges; the other is to use that analysis to take action. Even though one can go at great length in detailing certain tools, key will be the use of the tools in institutional development processes in the sector. So, the degree of complexity and comprehensiveness of the tools needs to be commensurate with the potential that exists for stakeholders to take action.