WORKING PAPER 10

MAPPING OF WATER, SANITATION, AND HYGIENE SUSTAINABILITY TOOLS

Ryan Schweitzer, Claire Grayson, Harold Lockwood

May 2014

IRC AGUACONSULT triple-S WATER SERVICES THAT LAST

CONTENTS

FIGURES

EXECUTIVE SUMMARY

Premature failure of water, sanitation, and hygiene (WASH) infrastructure and poor service levels experienced by end users has resulted in an increasing emphasis on sustainability amongst development partners in recent years. Partly as a response to these challenges, a number of organisations have invested in and developed tools to help understand and improve services. Recognising the need to promote and disseminate knowledge and good practice about the 'how to' of improving WASH sustainability, the Triple-S project[1], managed by IRC, has undertaken a number of activities aimed at making such information and tools more accessible. This report contains the findings of a mapping of tools currently in use, as well as the outcomes of a survey looking into demand: in short assessing the current state of the market for sustainability tools and identifying the gaps.

The assessment included a review of over 220 potential tools and found that there are currently 25 tools with clear content and a methodology for understanding, measuring, or predicting sustainability. Altogether these sustainability tools have been applied 92 times in 52 countries. Most address the technical, institutional, and management areas that affect sustainability. The online survey of the demand for sustainability tools and the results of a desk review of the supply of sustainability tools highlight several gaps. Specifically there is a need for tools that:

- can be utilised across all project life-cycles and beyond,
- address issues that are specific to sanitation and hygiene, and
- focus explicitly on peri-urban or urban areas or that are flexible enough to be applied in these contexts as well as the rural context.

The results of the mapping exercise and the demand survey indicate that development partners of all types are rightly putting an increased emphasis on the quality and durability of interventions. However, more effort is required to make these tools accessible and to encourage their scaled up application. There is a significant amount of experience available; better sharing of that experience can help to avoid the high-cost of creating new tools from scratch, or 'reinventing the wheel'.

There is also the need to look at a systematic validation of these tools in terms of their impact—most are still in the relatively early stages of product development and application at scale. Most importantly, going forward there is the need to link these efforts (largely of development partners) to those of national governments and to make the outputs more accessible, relevant and actionable for permanent stakeholders, especially at local (government) level, which is where accountability for ensuring adequate WASH service provision lies.

1 Triple-S, or Sustainable Services at Scale is a six year project funded by the Bill & Melinda Gates Foundation and managed by IRC of the Netherlands; see: http://www.waterservicesthatlast.org/

BACKGROUND

According to Joint Monitoring Program (JMP) data, 89% of people worldwide had access to an improved water source as of 2011. That data suggests that progress toward the Millennium Development Goals (MDGs) target for water supply is on track globally and the target will likely be achieved. The JMP data also shows that sanitation coverage world-wide has increased significantly, but progress has been insufficient. According to the most recent estimates coverage levels will likely fall short of the 2015 target, leaving approximately 2.5 billion people without access to improved sanitation (WHO/UNICEF 2013).

Despite headline progress, particularly for water, coverage levels reported by the JMP do not account for service levels or non-functionality of water, sanitation, and hygiene infrastructure supplied or improved as part of efforts to increase first time access. There is a significant amount of evidence showing high levels of non-functionality, which have been extensively documented elsewhere (IOB/ DGIS, 2012; Lockwood and Smits, 2011; RWSN, 2010). But in addition to high non-functionality, many communities must endure a decline in the quality, accessibility, reliability, availability, or affordability of WASH services. Recent data from Triple-S service delivery monitoring indicate that consumers in fact experience extremely poor levels of service as compared to nationally established norms (Adank et al., 2013; Abisa, Bey and Magara, 2014). In short, over the past 25 years, both government and development partners in the WASH sector have struggled with the challenge of how to maintain service levels for those with access to improved services, while extending coverage to new populations.

There is now an increasing recognition of the distinction between the sustainability of WASH services verses the functionality of the infrastructure that facilitates the delivery of those services. Along with their efforts to improve WASH service delivery many development partners have invested resources into the creation and application of tools that can be used to design, implement, or monitor and evaluate for sustainability. A number of these tools have been designed for and adopted by bi-lateral donors, NGOs and UN agencies, using differing definitions of sustainability and methodologies for collecting and analysing data. Some tools are designed to be holistic (i.e. inclusive of all dimensions of sustainability) while others consider specific dimensions of sustainability. Many tools focus on operational or programmatic issues that impact sustainability while others look at strategic considerations of sector-level processes and factors. Taken collectively these represent an important body of experience of (emerging) good practice and knowledge for the sector.

OBJECTIVES

Dissemination of information about tools, and development of new tools and resources that can contribute to improving sustainability of WASH service delivery is a key strategy of the Triple-S initiative. The research described in this paper was carried out by Aguaconsult[2], an implementing partner of IRC, and has three broad objectives:

1. **To assess the supply of sustainability tools:** identify, categorise, and analyse tools that have been or could be utilised to support the creation and/or facilitation of sustainable WASH services.
2. **To assess the demand for sustainability tools:** characterise the nature and extent of demand for sustainability tools in the WASH sector.
3. **To disseminate information on sustainability tools:** highlight the findings and impact of the use of sustainability tools in the WASH sector and communicate these to a global audience.

This working paper presents the results of both supply and demand assessments of a range of tools and complements an earlier Triple-S working paper that focused on five tools used by development partners to assess programmatic sustainability (Boulenouar et al., 2013). The information presented in this and the previous working paper was the subject of a two part webinar series[3] hosted by Global Water Challenge (GWC), WASH Advocates, Rural Water Supply Network (RWSN), IRC, and Aguaconsult in March 2014.

2 Aguaconsult is a UK-based consulting firm; the main researchers and authors of the mapping are Dr. Ryan Schweitzer and Claire Grayson, with support from Harold Lockwood

3 The presentations from both webinar series are available on the Global Water Challenge website.

METHOD

The demand for sustainability tools was assessed through an online survey, while the supply of existing sustainability tools was assessed through a desk review of tools currently in use in WASH sector. The following sections present the details on how these assessments were carried out.

ONLINE SURVEY

The demand for sustainability tools was assessed through a short online survey conducted between December 2013 and March 2014. This survey asked respondents about what tools they currently use and tools or functions that are either missing or that they would like to see in new tools. The surveys consisted of fourteen multiple-choice and fill in the blank questions and respondents were approached via email and links posted on the websites of the IRC, SustainableWASH.org, and the Triple-S Initiative. Participation was voluntary, respondents had the option to remain anonymous and all questions on the survey were optional. See Annex A for the list of survey questions.

DESK REVIEW

The supply side of sustainability tools was assessed through a desk review of sustainability literature. Four criteria were used to define 'tools' in this desk review. These criteria were selected so that the outputs of the desk review would be most beneficial to WASH stakeholders. WASH stakeholders encompasses representatives from: government institutions, donor organisations, implementing organisations, researcher institutions, and consumers or users. The final list of tools is contained in Annex B and short descriptions of each of the tools is provided in Annex C. The four criteria used to define a 'sustainability tool' are listed below:

1. **Track record:** a tool must have a history of being applied in the WASH sector (e.g. to water, sanitation and/or hygiene projects, programmes, technologies, policies, etc.).
2. **Specific content:** the content of a tool should be in the form of a checklist of questions, a framework of indicators and sub-indicators, a matrix of observations, etc. Literature or documents that do not have specific questions or observations are excluded. Also excluded are applications that provide the means for collecting data but that are not prescriptive with regard to content (e.g. monitoring dashboards). A list of these types of platforms is provided in Annex C.
3. **Clear and reproducible process:** a tool should contain a process, including explicit instructions for its application. This means a methodology describing the 'WHO, WHAT, WHEN, and WHERE' that is needed to be able to apply the tool. This process or methodology could be a very simple and straight forward series of necessary steps, a 'checklist' planning exercise, or a very complicated process required for performing a monitoring and evaluation study with statistical design and sampling protocols. On this basis, documents that present case studies or one-off sustainability measuring exercises are excluded. Although it is possible to glean information from these documents and apply the lessons learned to similar contexts, the inherent limitations for scalability excludes these documents.
4. **Synthesise data to produce an output:** tools must have, as part of their methods, an element of analysis that results in the synthesis of a unique output that can be easily interpreted by the appropriate stakeholder audience[4]. Those tools that do not synthesise the collected data or that provide an output that cannot be interpreted without very specialised knowledge are excluded.

RESULTS

DEMAND ASSESSMENT

Ninety-two individuals responded to the online survey representing non-governmental organisations (64%), private sector companies (14%), research institutions (12%) and donors and government (less than 6% each). Nearly eight out of ten respondents have used a sustainability tool in their work. Respondents were asked to list all of the activities for which they use sustainability tools: 65% are using tools for assessing the sustainability of projects or programmes; 48% are using tools for performing life-cycle cost assessments and 45% for conducting institutional capacity assessments.

Of the 92 respondents, 84 expressed an interest in accessing new tools that could be used to ensure greater sustainability of WASH services.

Respondents were asked to gauge their satisfaction with the existing tools they use. Considering only those individuals who responded that the tools they currently use only meet 'some' or 'few' of their organisations' objectives, there were two major demands expressed:

4 This does not mean that each tool should be able to be understood by laypersons. It does mean that if a tool is designed for a unique audience, then the outputs/results should be easily interpreted by all members of that audience, without requiring that they have specialised knowledge of the tool.

- 58% of respondents are interested in a new tool that can be used for planning and can be linked to monitoring. These respondents wanted a tool that can be used during the planning phase to predict sustainability but that also can be utilised during the implementation phase and link with other (post) project or investment monitoring activities. This type of tool could be used across all life-cycle stages.

- 50% of respondents cited a demand for organisational self-assessment tools. These are tools that can be used by organisations to improve their capacity to help ensure that their programming is more sustainable.

Although these survey results are not a comprehensive assessment of the demand for sustainability tools in the WASH sector, they do highlight an important trend: currently over 75% of individuals are using sustainability tools and more importantly, 90% respondents are interested in accessing new tools that could help to ensure more sustainable outcomes of activities in the WASH sector.

SUPPLY ASSESSMENT

A total of 191 different resources were identified that have been used to predict or measure sustainability in the WASH sector (criteria #1). From this initial pool, only 25 met all three of the subsequent criteria used to define a WASH sustainability tool. These 25 tools were developed by donors, implementing organisations, and research or consulting firms. Collectively they have been applied at least 92 times in 52 countries in all regions of the world. However, almost half of the tools were developed and/or applied in Africa (see Figure 1), and all were developed in the last decade and have only been applied a limited number of times. Only five tools have been applied nine times or more (see Figure 2).

FIGURE 1: REGION WHERE THE 25 SELECTED WASH SUSTAINABILITY TOOLS HAVE BEEN APPLIED

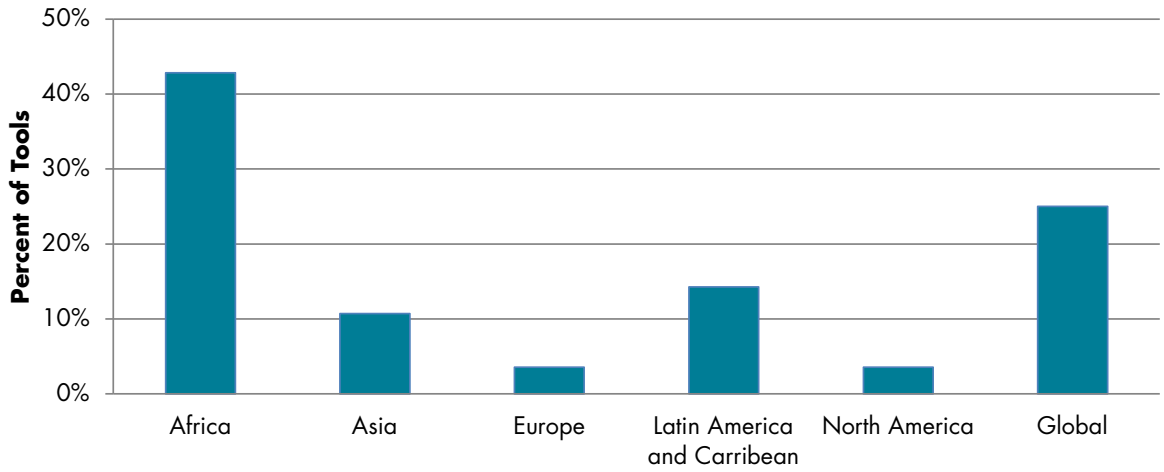
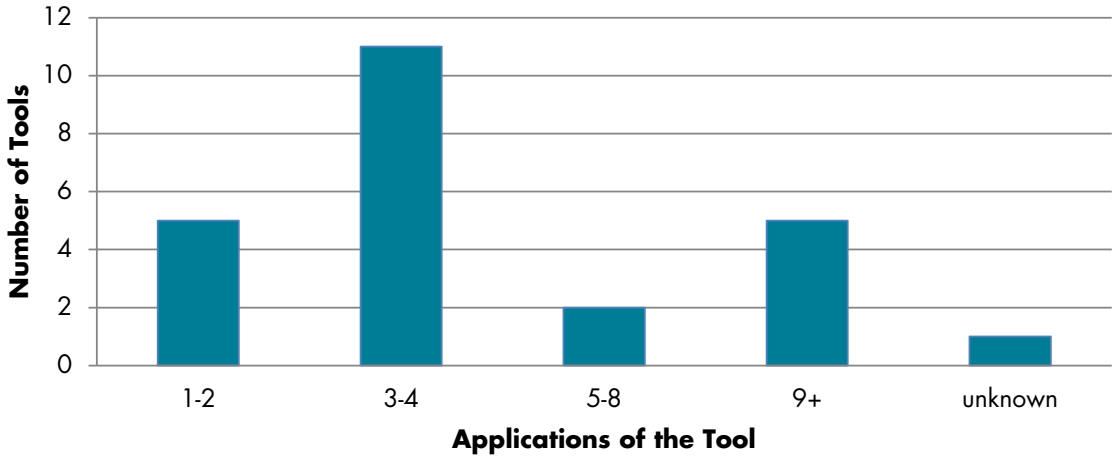


FIGURE 2: NUMBER OF APPLICATIONS OF THE 25 SELECTED WASH SUSTAINABILITY TOOLS



TAXONOMY

For this study a taxonomy of sustainability tools was developed that considers general qualities (e.g. target audience, objective, scope of analysis, stage of development), as well as details of the framework, processes, and outputs of each tool. The information used to determine the taxonomic classification of the tools was obtained from manuals, guidelines, and reports or cases studies involving the application of each tool. In addition, the organisation that developed each tool was given the opportunity to review and provide feedback on the taxonomic summaries (see Annex C). The following sections describe this taxonomy.

GENERAL

The 25 tools have been developed by different types of organisations, for different target audiences, and with different scope and objectives. Some tools were designed for a very specific audience while other tools produce outputs that could be utilised by a wide range of WASH stakeholders. Each tool was categorised based upon the target audience that was cited in the literature. Not surprisingly the target audience of the reviewed sustainability tools was most commonly implementing organisations (37%). This was followed by: donors (23%), national government (19%), local government (8%), service providers (8%), and finally for use by communities (6%). Comparing the scope of each tool, most of the sustainability tools focus on projects or programmes, however, a number of tools can be applied generally to the WASH sector or to specific organisations, technologies, or even geographic areas (e.g. communities, water basins). Figure 3 shows the scope of the sustainability tools considered in this desk review.

FIGURE 3: THE SCOPE OF THE 25 SUSTAINABILITY TOOLS INCLUDED IN THE DESK REVIEW

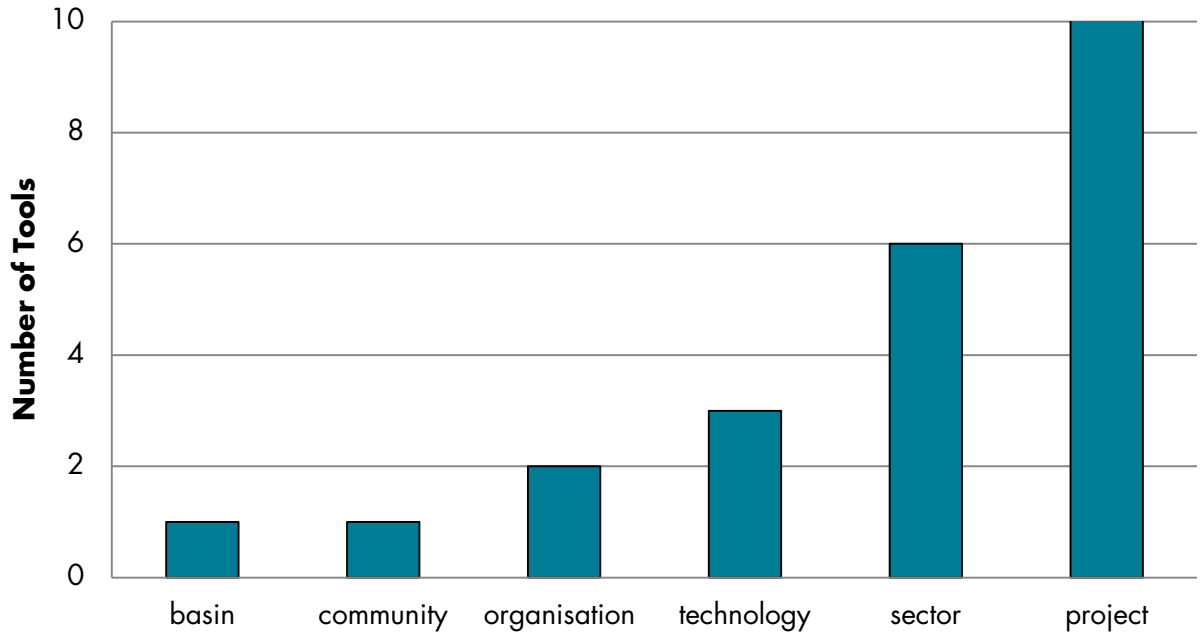
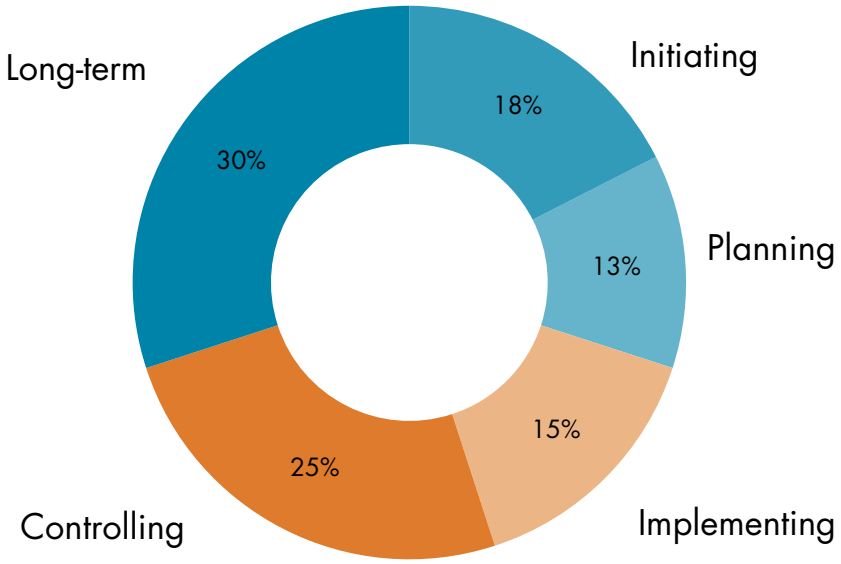


Figure 3 shows that more than half of the sustainability tools do not focus on projects per se. However, many if not all the tools have been utilised in relation to activities that occurred (or will occur) as part of a project or programme. Therefore it is beneficial to understand at which life-cycle stage these tools are being utilised. The life-cycles stages were defined using the standard five project management stages as defined by ISO 21500:2012 modified to include a post project or long-term phase. The five phases are: initiating, planning, implementing, controlling and long-term service delivery.

Tools that are useful for the initiating or analysis stage include sector-wide assessment tools or those that provide information that inform feasibility studies. Planning stage tools provide more specific insight that would be relevant to developing project or programme strategies (e.g. guidance on technology or the service delivery model). All tools that can be used for on-going project monitoring fall within the implementing stage. All tools that can be used for the purposes of evaluating or assessing an existing project or intervention fall in the 'controlling' life-cycle stage. Finally all those tools that can be used for post-project or post-investment assessment or are applied completely outside a project context are considered in the long-term service delivery category. Each tool was evaluated, using the available literature that describes the tools to determine at which life-cycle stage or stages the tool is best utilised. The results are shown in Figure 4.

FIGURE 4: THE LIFE CYCLE STAGES DURING WHICH THE TOOLS CAN BE USED



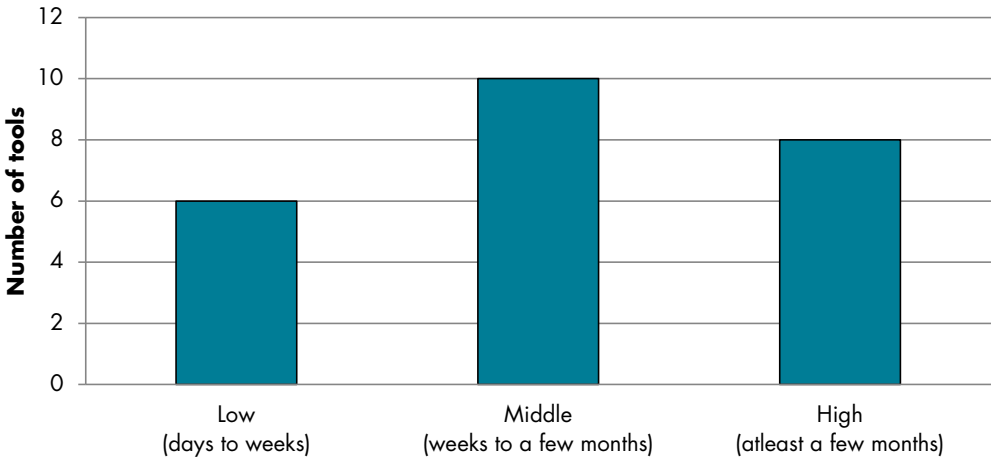
Note: Some tools covered more than one life-cycle stage and therefore the percentages add up to more than 100%.

PROCESSES

Of the 25 tools, 9 incorporate both primary and secondary data sources, while 15 tools exclusively utilise primary data, and only 1 tool utilises exclusively secondary data. Most of the tools are applied by implementing organisations (n=14) and only 5 of the tools are intended to be applied by independent third party organisations. The frequency of application of tools varied: one-time application (n=4), annually (n=9), every three to five years (n=-3), and as needed (n=3). Five tools did not specify the frequency with which they should be applied.

The reviewed tools include a wide range of methodologies and data collection techniques such as: focus group discussions, technical inspections, desk studies, and key-informant interviews. As a result, the cost and level of effort ranges widely. Data on the costs of application was only available for four tools. The data obtained from the organisations that developed these tools shows that costs ranged from US$5,000 to US$65,000 per application. To have a better understanding of the level of effort, the tools were arranged into three categories (e.g. high, middle, low) based upon the type of data collected, data collection techniques used, and the overall level of the detail of the framework (see Figure 5).

FIGURE 5: LEVEL OF EFFORT REQUIRED TO APPLY EACH SUSTAINABILITY TOOL



Tools in the 'high' level of effort category have a complicated sample procedure and collect household-level data in multiple locations through a detailed process that takes at least a few months. In the middle category are those tools that might collect data from multiple stakeholders at different levels, but are limited to a timeframe of a few months. The lowest category are those tools that are self-assessments, desk-based exercises, or collect information from a limited number of stakeholders in very condensed period. Figure 5 shows that most of the tools reviewed fall into the middle level of effort category.

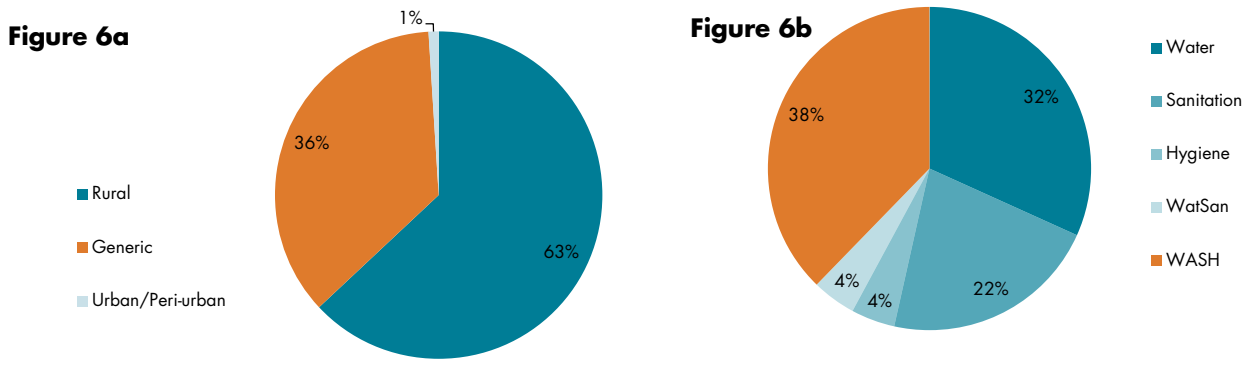
FRAMEWORK

The content or framework of each tool was reviewed in detail. Most tools have a hierarchy of components or levels. However, each tool utilises a different nomenclature for the levels (i.e. factors, dimensions, pillars, etc.). For clarity purposes the following nomenclature was used: the components of the first level are called 'areas' of sustainability and the components comprising the next level down are 'indicators' of sustainability. Where present, the third and fourth levels are called 'sub-indicators' and 'questions' respectively. The contents of each tool were disaggregated by level and entered into a database.

The sustainability areas (i.e. first level) were subsequently coded using qualitative analysis techniques (Loftland and Loftland, 2006). Five categories emerged from the coding: technical, institutional or management, financial, environment, and social or cultural. Similar categories have been identified elsewhere and have been remarkably consistent over a relatively long period of time (UN, 1995). Of the sustainability areas for the 25 tools reviewed, the most common area of sustainability was institutional or management (34%) followed closely by technical areas (29%); less common are financial (15%), environment (12%), and socio-cultural (10%) areas. Given that strong financials are regularly cited as a pre-requisite for sustainability (Lockwood et al, 2002), it is surprising to find that it is poorly represented across these key areas in the tools reviewed.

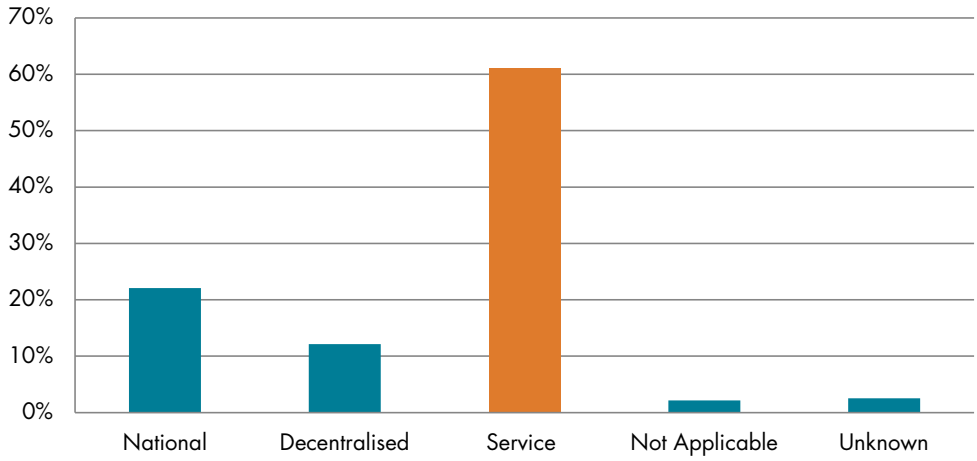
Sustainability indicators were categorised by sector (e.g. water, sanitation, hygiene) and location (e.g. rural, peri-urban, urban, or general). The results of this show an emphasis on indicators designed for application in a rural context, with 63% of all indicators targeting rural conditions (see Figure 6a). Only 1% of indicators are specifically designed to address peri-urban or urban conditions and 36% are generic (i.e. could be applied in a rural, peri-urban, or urban context). With regard to the sector, most indicators are designed generically for WASH (38%). Figure 6b shows that water is clearly emphasised over hygiene or sanitation. This is consistent with previous observations (Black and Fawcett, 2008).

FIGURE 6: CATEGORISATION OF THE INDICATORS BY LOCATION (FIGURE 6A) AND BY SECTOR (FIGURE 6B)



For each indicator it was possible to identify the level or levels at which data was collected; data collection is grouped into three general levels: national, decentralised, and service level. Indicators that have a national level of inquiry address national policies or regulations or solicit data from stakeholders at the national or regional level (e.g. representatives of national ministries). Indicators that have a decentralised level of inquiry engage stakeholders or gather policy information from the lower administrative levels (e.g. county, district or municipality). Service level is the level at which the WASH service is provided (i.e. the city or community for networked water supply or sewerage systems or household for latrines, or in some cases for point water supplies). As seen in Figure 7, the majority of indicators contained in the 25 sustainability tools reviewed have a level of inquiry at the service level. These indicators collect information from service providers, beneficiaries, or users in the neighbourhoods, communities, villages, or households where the WASH services are provided.

FIGURE 7: LEVEL OF INQUIRY FOR INDICATORS



OUTPUTS

All the tools considered in this review utilise a straight forward analysis procedure, whereby the scores for each level of the framework are aggregated to the subsequent higher level and either presented as a total or percent. Weighting factors for the different levels (i.e. area or indicator) are only utilised for three of the 25 tools. In two cases the values used for weighting are determined by participatory processes with WASH stakeholders. In one case the weighting factors are derived though complicated statistical analyses techniques. Most tools presented the results graphically through a bar chart or radar diagram. Six of the tools use a traffic light scheme to benchmark the results
(red = low scores, yellow = middle scores, green = high scores).

To be able to accurately validate the outputs of a given sustainability tool it is necessary to compare results over a long-period of time. In addition, it is necessary to simultaneous collect information that can be used to objectively define sustainability (e.g. service level information). Of the 25 tools, only six have been applied five times or more. Only one tool has been applied more than three times in the same area, and no tool has achieved a significant scale of application.

IMPACT

Accounting for the impact of these tools is not easy or straightforward. In some cases this is because the tools are aimed at strategic processes, which are not always subsequently tracked to assess impact. For other tools, particularly those tools that monitor sustainability, the outputs of the tools do not necessarily link to direct actions or repairs to specific WASH infrastructure. It is therefore difficult to assign an impact of the tool separate from the impacts of monitoring processes. In an attempt to identify the general impacts, the tools were grouped by scope (see Figure 3).

1. Sector level tools

On average this category of tools has been applied more times as compared to the other categories. In general the tools included in this category have been well financed (four of the six tools were funded by WSP). Perhaps most significantly they have had considerable buy-in by national government and have been extensively disseminated, both of which result from the strong consultative and participatory nature of the processes of each of these tools. These tools are therefore considered to have relatively high impact in the sector. However the outputs or results of these tools are comparatively generic (i.e. macro) and therefore most useful and relevant to WASH stakeholders at the national level. Although this information can be used by implementing partners and other stakeholders, because of the macro focus it is less valuable to those working 'on the ground'.

2. Project or programme related tools

In general, the tools in this group have been developed with more limited budgets. They are often tailored to a specific organisation or context. As a result these tools are perhaps less valuable to a larger audience in terms of easy replication (and hence broader impact). However in at least two cases (the UNICEF Sustainability Checks and the USAID-Rotary Sustainability Index Tool) there has been a demonstrated up-take or replication across the organisations in question (e.g. from one country or mission to another). Organisations have reported some impact on the programmes. These impacts include strategic changes in programme or project design and also operational changes such as remedial actions to on-going project activities. Additionally,

these tools have successfully provided implementers and their donors with reports regarding the status and use of the interventions being financed. However, it is probably too early to determine if the application of these tools per se has led to an increase in actual sustainability over the long term. It is also unknown if the organisations that developed these tools are collecting information in parallel (e.g. functionality or service level data) that could be used to validate the outputs of the sustainability tools.

3. Technology

There is strong evidence that these tools have been useful in improving asset management and strategic investment. Both CUPPS and FEASIBLE were developed with significant funding and backing from the US government and the OECD; they are both computerised and open source, which means that replication and uptake is more likely. As a result, and similar to the sector wide assessment tools, these technology tools have great potential for scalability and replicability.

4. Miscellaneous remaining tools

This group includes a mix of tools that do not fit into any of the above categories. They include organisational self-assessment tools (e.g. Water for Life, Sustainability Self-Assessment), basin management (e.g. IWRM), and tools that focus on individual communities (e.g. Sustainability Snapshot). Of the four tools, three were developed by NGOs and therefore it is possible that the degree to which they were externally disseminated or promoted was limited. It is clear that these tools have been less extensively applied, have shorter track records, and as such have less demonstrated impact.

CONCLUSIONS

DEMAND AND SUPPLY

Representatives from 54 different WASH organisations responded to an online survey on their use of and demand for sustainability tools; 78% of respondents are currently using tools, and 92% are interested in new tools to help ensure greater sustainability of WASH services. Respondents expressed a demand for tools that can link project planning to project monitoring efforts. Based upon the current behaviour of organisations there is a strong indication that new sustainability tools would be adopted, especially by NGO implementing organisations. What is still not clear is the strength of demand from national government agencies or ministries since this group was under-represented in the survey process.

To date the sustainability tools in use in the sector have been developed for and applied by implementing organisations, most commonly in Africa. Existing tools tend to focus on the water and rural sub-sectors, and collect data on technical and management or institutional areas. This data is most often collected at the level at which the WASH service is provided (i.e. household or community level). The obvious gaps for any new tools would be to focus on sanitation and hygiene interventions. These new tools should also be flexible and appropriate for use in urban and peri-urban areas – not restricted to rural interventions – and incorporate data from various different levels (e.g. go beyond only the level of direct intervention to include higher-level enabling environment considerations).

The frameworks of these tools (i.e. areas, indicators, sub-indicators, and questions) are based on sector best practice. From the review it is clear that many indicators and sub-indicators in these frameworks have been selected based on the findings of scientific studies linking them to sustainability, which has often been defined as long-term functionality of infrastructure. Although individual indicators and sub-indicators have been linked to sustainability, there is no proof of rigorous validation processes that correlates the outputs of the sustainability tools with actual sustainability.

POLICY IMPLICATIONS

From this review of sustainability tools currently in use in the WASH sector, a number of implications for policy and future support were identified. Firstly, there is an evident and continued demand for new sustainability tools supported by donors and other development partners. This is not only to meet the 'gaps in the market' for future tools, but also to specifically address the demand for tools that can be applied across the entire WASH life-cycle.

Given that many tools are still in the relatively early stages of product development and the full level of impact is not known, there is a need for a systematic validation of the outputs of each tool. Validation needs to be considered for future applications of the existing tools and prior to the development or modification of any existing tools. This is necessary to ensure that the tools are linked to actual sustainability. However, such an analysis goes beyond the scope of this paper and would require collecting primary data on functionality and services levels from each of the areas where each tool has been applied. Although this would be a costly process, it would increase confidence in the use of tools and ensure value for money in their application.

A second and crucial point for action is to assess the possibility of linking existing tools, as well as tools currently in development, 'vertically'. An example would be connecting a project evaluation tool to sector-wide tools or connecting tools across sustainability 'areas' (e.g. the WASHCost tool with GiFT) or the sector tools (e.g. CSO/SDA/MAPAS) with specific project or programme tools (e.g. Sustainability Check). This could be a way to leverage cost savings and improve the impact of individual assessments.

Lastly, and perhaps most importantly, going forward there is the need to link these efforts (largely of development partners) to those of national government. Making the outputs of each tool more accessible, relevant and actionable for permanent stakeholders, especially at local (government) level is of critical concern if they are to achieve scaled up impact. No tool or process exists in a vacuum and it is important to understand how these tools can be utilised and benefit national processes and systems. Only three tools in this review were developed by government entities (the CUPSS, Sustainability Index Tool, and SIASAR). The first two were supported by US government agencies and the last was supported by the national governments of Nicaragua, Honduras, and Panama with significant financing and technical assistance from the World Bank. The development of the remainder of the tools was led by NGOs or international organisations, however there are cases where other WASH stakeholders were involved in the development process. Given that accountability ultimately rests with national governments in the South to ensure sustained service provision, there is the need to better understand and support the enabling environment in which such tools are intended to function. A number of monitoring platforms or instruments are in use in developing countries and could be linked to the types of tools included in this review. Some of these platforms are listed Annex D. In order to link the efforts it will be important to convene the relevant stakeholders and identify objectives and priorities and also compare the frameworks to identify overlapping areas and indicators.

REFERENCES CITED

Abisa, J; Bey, V. & Magara, P. 2014. *Assessment of the Performance of the Service Delivery Model for Point Sources in Uganda.* [PDF] Kampala: IRC Uganda. Available at: < http://www.waterservicesthatlast.org/media/publications/assessment_of_the_performance_of_the_service_delivery_model_for_point_sources_in_uganda>

Adank et al, 2013. *The status of rural water services in Ghana: A synthesis of findings from 3 districts (Akatsi, Sunyani West and East Gonja Districts).* [PDF] Accra: IRC Ghana. Available at: <http://www.waterservicesthatlast.org/media/files/the_status_of_rural_water_supply_services_in_ghana>

Black, M. & Fawcett, B., 2008. *The last taboo: opening the door on the global sanitation crisis.* London: Routledge.

Boulenouar, J., Schweitzer, R., & Lockwood, H., 2013. *Mapping of sustainability assessment tools to support sustainable water and sanitation service delivery.* Triple-S Working Paper 6. [PDF] The Hague: IRC. Available at: <http://www.waterservicesthatlast.org/media/publications/mapping_sustainability_assessment_tools>

IOB/ DGIS, 2012. *From infrastructure to sustainable impact: Policy review of the Dutch contribution to drinking water and sanitation (1990-2011).* Available at: < http://www.waterservicesthatlast.org/news/news_events_2/evaluating_dutch_contribution_to_improving_drinking_water_and_sanitation_services> [Accessed on 1 September 2013].

ISO, 2012. ISO 21500:2012, *Guidance on project management. Geneva: International Standards Organisation.*

Lockwood H., Bakalian A., & Wakeman W., 2002. *Assessing sustainability in rural water supply: the role of follow-up support to communities. Literature review and desk review of rural water supply and sanitation project documents.* Washington D.C.: World Bank/BNWP.

Lockwood, H. & Smits, S., 2011. *Supporting Rural Water Supply: Moving Towards a Service Delivery Approach.* Rugby: Practical Action Publishing. Available at: < http://www.waterservicesthatlast.org/publications/multi_country_synthesis> [Accessed 1 August 2013].

Loftland, J. & Loftland, J., 2006. *Analysing Social Settings: A Guide to Qualitative Observation and Analysis* (4th ed.). Belmont, CA, United States: Wadsworth.

RWSN (Rural Water Supply Network), 2010. *Myths of the Rural Water Supply Sector.* St. Gallen: RWSN.Available at: < http://www.rural-water-supply.net/fr/resources/details/226> [Accessed 10 September 013}.

UN, 1995. *Economic and Social Council. Official Records of the United Nations Commission on Sustainable Development. Supplement No12.* New York: United Nations.

WHO/UNICEF, 2013. *Progress on Sanitation and Drinking Water.* Geneva: WHO Press.

ANNEX A: SURVEY QUESTIONS

QUESTION	RESPONSE
What kind of organisation do you represent?	a) Multilateral
	b) Bilateral
	c) Foundation
	d) NGO
	e) Research
	f) Network
	g) Private sector
	h) National Government
	i) Other (please specify)
What are the top 3 activities you are involved in with regard to WASH? (please tick three from the following list that best describe your organisation's role)	a) Funding
	b) Policy and strategy
	c) Planning
	d) Regulation
	e) Programme/ project design
	f) Implementation of new/rehabilitated infrastructure
	g) Monitoring and evaluation
	h) Capacity support to service providers
	i) Service provision
	j) Learning and research
	k) Other (please specify)
Do you or have you used a tool when designing, implementing, or monitoring WASH projects/ programmes to ensure their sustainability?	YES/NO
If yes, please tick all that apply:	a) Sector assessment or diagnostic
	b) Sustainability assessment
	c) Organisational mapping and self-assessment
	d) Cost or life-cycle cost analysis
	e) Institutional capacity assessment
	f) Water resource assessment
	g) Asset inventory
	h) Asset management
	i) Technology selection
	j) Other (please describe)

Where do you access tools or frameworks from? (Tick all that apply)	a) Own internal sources
	b) Hire a consultant to produce bespoke/custom tool
	c) Rural Water Supply Network
	d) IRC International Water and Sanitation Centre
	e) Sustainable Services at Scale (Triple-S)
	f) WASHCost
	g) WEDC
	h) SustainableWASH.org
	i) SKAT
	j) Water and Sanitation Program (World Bank)
	k) World Bank
	l) African Development Bank
	m) Asian Development Bank
	n) Inter-American Development Bank
	o) International Finance Corporation
	p) WaterAid
	q) Water For People
	r) Practical Action
	s) UNICEF
	t) WASH Advocates
	u) A national government
	v) Other (please specify)
Considering the tool(s) that you have used, have they met all of their intended objectives?	YES/NO
Would you like access to new tools to ensure greater sustainability of the WASH programmes?	YES/NO
	Please briefly why for either response
At what stage of the development of a new programme, would you like to be supported?	a) When developing your WASH policy and strategy
	b) When establishing funding guidelines or aid instruments
	c) At the programme design stage
	d) During implementation
	e) For on-going monitoring
	f) For post-implementation monitoring
	g) For service delivery

Which of the following tools would (do) you find most useful? (tick all that apply):	a) Self-assessment tool: to allow your organisation and staff to reflect on your readiness and capacity to better address sustainability in your programming.
	b) Organisational assessment tool: to allow funding organisations to evaluate the capacity, and track record of implementing organisations with regard to sustainability of previous WASH programmes.
	c) A sector assessment tool: to provide an analysis of strengths, weaknesses, gaps and opportunities in the sector (national or decentralised level) to inform your decision making.
	d) An asset inventory and management tool: to determine the status of existing and new assets and a framework to better maintain and manage such assets
	e) A water resource assessment tool: to determine the short and long-term sustainability of water resources that supply rural water services
	f) Grant guidelines: for donors or funders who want to provide more specific criteria when launching calls for proposal in the sector or establishing a sustainability fund or prise.
	g) Cost calculator: to calculate the different costs required across the life cycle of a service
	h) Design guidelines: to describe steps to follow when designing a WASH programme.
	i) Project monitoring and evaluation tool/indicator checklist: a tool to describe the process and indicators required to measure, during the project, the likely sustainability of the services provided by the interventions.
	j) Post project monitoring check: to evaluate the sustainability of project interventions after the conclusion of project activities.
	k) Other (please specify)
Which aspects or factors of sustainability do you consider to be most important for inclusion in a tool or framework? (Please select the top 3 factors in your opinion)	a) Institutional and policy issues
	b) Legislation (national and local by-laws)
	c) Institutional capacity for central government
	d) Institutional capacity for local government
	e) Coordination and harmonisation of approaches
	f) Alignment of support to national priorities
	g) Capacity of the private sector
	h) Management at service provider level (including community management and private or utility operators)
	i) Technology and construction
	j) Long term support to service providers (including community management and private or utility operators)
	k) Financing, tariffs and subsidies
	l) Monitoring
	m) Environmental/water resource sustainability
	n) Other (please specify)
Which platform would be most useful for you to access and use the tool?	a) Computer application (works off-line)
	b) Mobile application (works off-line)
	c) Web-application (computer)
	d) Web-application (mobile)
	e) Other (please specify)
In the future would you be willing to share anonymous data that results from the use of a tool?	YES/NO
Please provide any other feedback on the subject of tools for improving sustainability of WASH programming	Open-Ended Response

ANNEX B: INVENTORY OF TOOLS

TOOL	ORGANISATION/INDIVIDUAL
PROJECT OR PROGRAMME TOOLS	
Sustainability Assessment Tool (SAT)	AGUASAN Group
Gender Analysis Snapshot (GAS)	CARE International
Governance into Functionality Tool (GiFT)	CARE International
Local Government IWRM Support Assessment	CARE International
WASH Life-cycle Assessment	Chalmers University of Technology/ University of South Florida
Sustainability Monitoring Framework (SMF)	Dutch WASH Alliance
WASHCost Tool	IRC
Planning-Oriented Sustainability Assessment (POSAF)	Starkl et al (2013)
Sustainability Check (SC)	UNICEF
Sustainability Index Tool (SIT)	USAID/Rotary International (Aguaconsult Ltd)
Tool for Planning, Predicting & Evaluating Sustainability (ToPPES)	Water and Sanitation for Africa (WSA)
Methodology for Participatory Assessment (MPA)	Water and Sanitation Program (WSP) /IRC
SECTOR	
WASH Sustainability Sector Assessment Tool	IRC / Aguaconsult
Water, Sanitation & Hygiene Bottleneck Analysis Tool (WASH-BAT)	UNICEF
Sub-sector scorecard*	Water and Sanitation Program/National Governments
Enabling Environment Assessment	Water and Sanitation Program
Sector Wide Investment and Financing Tool (SWIFT)	Water and Sanitation Program
Rural Water and Sanitation Information System (SIASAR)	Water and Sanitation Program/National Governments
TECHNOLOGY OR INFRASTRUCTURE FOCUS	
Check Up Program for Small Systems (CUPPS)	Environmental Protection Agency (US-EPA)
Financing for Environmental, Affordable and Strategic Investments that Bring on Large-scale Expenditure (FEASIBLE)	OECD/EAP Task Force and COWI
Technology Applicability Framework (TAF) & Technology Introduction Process (TIP)	Skat Foundation
OTHER (BASIN, COMMUNITY, ORGANISATION)	
Road - map for Integrated Water Resource Management (IWRM) in River Basins	CARE International
Sustainability Snapshot	WaterAid
Water for Life Sustainability Rating	Improve International
Sustainability Self-Assessment	SustainableWASH.org

***Note: The financial flows model of the CSO/SDA/MAPAS was not considered a tool for this paper, however a summary sheet is provided.**

ANNEX C: DESCRIPTIONS OF TOOLS

SUSTAINABILITY ASSESSMENT TOOL (SAT)

The Swiss community of practice, AGUASAN, developed the Sustainability Assessment Tool (SAT) for reviewing existing interventions of on-going and completed programmes to support future WASH programme planning. The tool was pilot tested during an assessment of rural water schemes in Kosovo in 2010. Less detailed evaluations using similar methods have been conducted in Haiti, Nepal, and Mali. To date the tool has been applied by implementing organisations and the level of effort has been approximately two person-months for the detailed assessment and one to two person-weeks for the 'rough' assessment. Currently there is no consolidated guiding document describing the specific methodology for applying the tool. Total costs range between US$ 2,000-20,000 and have not exceeded the cost of conventional project evaluations for the organisations involved.

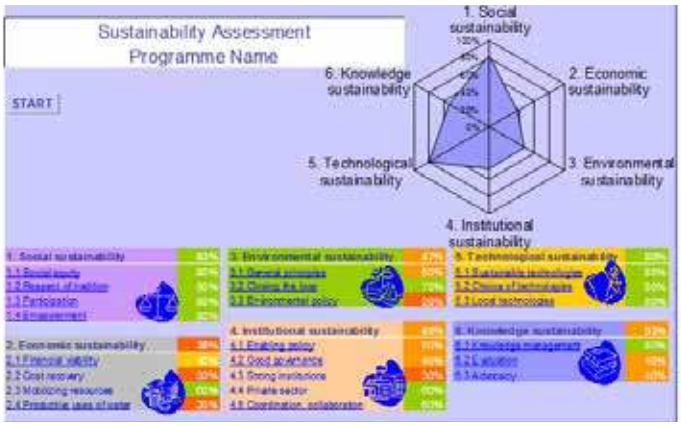
GENERAL DESCRIPTION

Target: Implementing organisations.

Objectives: To determine the sustainability of the programme interventions.

Areas: Economic, environmental, institutional, knowledge, social, and technological.

Indicators: Each of 22 indicators has between 2 and 8 sub-indicator questions (total of 110 questions) to derive indicator scores. Indicators are adapted to meet the unique assessment requirements and ensure appropriateness for the local context.



Methodology: Primary and secondary data is collected through the review of policy and program documents, semi-structured interviews with key informants, and field observations. This data is used to determine the responses for sub-indicator questions which are used to determine indicator scores from 0 to 100. Factor scores are the average of the indicator scores.

Output: Area scores are graphically represented by a radar graph, and the indicator scores are shown in a traffic light system. The SAT output report contains recommendations at the sector level which are useful for future planning and assessment.

Tool format and language: Excel file; English.

Reference Link: http://www.aguasan.ch/

IMPACT AND FINDINGS

In Kosovo the application of the SAT was a contributing factor for the creation of a new law requiring greater representation of municipalities on regional water - boards, and, the government has since mobilized greater finances, increased efforts to protect watersheds, improved water quality monitoring, and conducted two workshops on rural water system management.

Strengths	Limitations
Comprehensive assessment of sustainability across six areas	Limited application to date
Potential to be used as a pre-implementation tool	Involves a large number of indicators
Participatory process including local stakeholders	Focus is on conditions in the community
The outputs motivate stakeholders' dialogue and have the potential to inform sector/policy development	Relies on information derived from select individuals

GENDER ANALYSIS SNAPSHOT (GAS)

CARE developed the Gender Analysis Snapshot to explore the links between gender equity and WASH sustainability and project/programme effectiveness in Northern Ghana. The GAS tool is composed of 22 indicators in four areas: water resources, household decision making, access to public spaces and services, and woman empowerment. Each indicator takes the form of a question with a likely style response. Scoring for each indicator is from one to five and more points are awarded to responses that reflect greater participation by women or more equity in each of the four areas. The indicator questions are answered collectively by a focus group, and two focus groups meetings are done in each community – a male focus group and a female focus group. Focus group members as well as community facilitators were selected to maximise representation of all groups, with consideration, for example, of inclusion of female-headed households, households with disabled female children, diversity of age, etc. As with qualitative data collection methods, in general the level of effort required is greater. However the amount of data is great, which can lead to more nuanced conclusions.

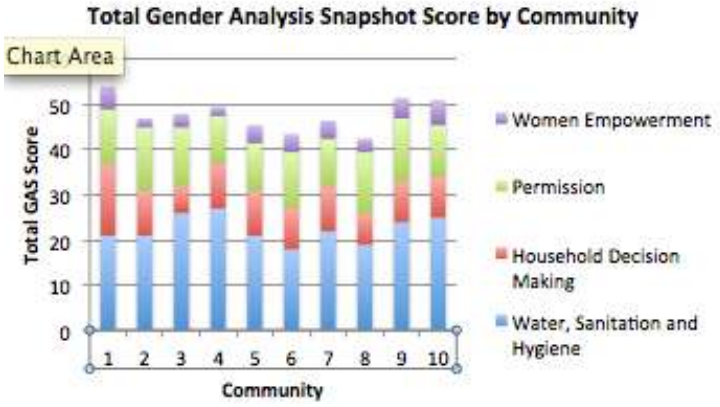
GENERAL DESCRIPTION

Target: Project staff.

Objective: To understand the level of gender equity in sample communities.

Areas: Water sanitation and hygiene, household decision making, access to public spaces and services, and woman empowerment.

Indicators: 24 indicator questions.



Methodology: Focus groups were conducted in each community. Two focus groups (one male, one female) were used due to the sensitive nature of the topics. Participants were asked to score each of 24 questions. Individual scores were averaged to come up with a final score for each indicator for the community. All the indicator scores were aggregated for an overall score (range of 21-90) with higher scores indicating higher levels of gender equity in the community. Comparison of scores between the focus groups can be utilised to highlight the perceptions of each gender.

Outputs: Indicator and composite scores and bar chart showing scores by community and area.

Tool format and language: Downloadable Word document; English.

Resource Link: This tool along with other resources are available: http://water.care2share.wikispaces.net/TOOLS

IMPACT AND FINDINGS

GAS has been applied in ten communities in three districts of Northern Ghana and in Burkina Faso by a different organisation. In both cases the GAS was embedded in a larger study and applied in coordination with other assessment methodologies. Both provided a more in-depth assessment and links to recommendations on how to adjust future WASH projects in ways that deliberately target different categories of women to spread and strengthen overall project benefits.

Strengths	Limitations
Questions are straightforward Participatory processes ensure that the perspective of the community is represented Process can be embedded in both planning and monitoring activities Can provide insight into women and men's understanding of gender empowerment and equity	Requires specialist trained in participatory processes and facilitation skills Assumptions behind scoring arrangements in the sample framework are not clear If utilised alone, the GAS may be overly simplistic

THE GOVERNANCE INTO FUNCTIONALITY TOOL (GIFT)

The Governance into Functionality Tool probes into the issue of governance of improved water points in rural communities, and has been designed to allow aggregation of data in a simple and systematic way from community to commune/district and regional levels. The tool includes a set of questions that reveal issues around the effectiveness of community governance structures to maintain public water points. There are twenty questions in the framework, which shed light on key issues in four areas: participation, accountability, transparency, and cost recovery. The findings can alert implementers or local governments to any patterns of weaknesses that need addressing and provide a mechanism to identify communities that are facing problems. The cost and level of effort required to implement the GiFT could not be estimated at this time.

GENERAL DESCRIPTION

Target: Project or programme staff, commune/district authorities.

Objective: To assess efforts to improve governance, environmental protection and risk management.

Areas: Governance is defined with the following: accountability, inclusiveness, participation, and transparency. Functionality is assessed through a technical audit (using various different indicators).

Indicators: For the governance framework, each of the four areas has five indicator questions, for a total of 20 questions.

Methodology: The 20 indicator questions are asked to stakeholders at the community level through key informant interviews or focus group discussions with community management committees. Each indicator is scored from 1-3 based upon a system developed by project staff and government stakeholders. The indicator scores are aggregated for an area score and can further be presented as an overall score (percent). The quantitative data can be presented alongside qualitative information that is collected through the focus groups with the community management committees.

Outputs: Indicator and area score.

Tool format and language: Word document; English.

Resource Link: This tool along with other resources are available: http://water.care2share.wikispaces.net/TOOLS

IMPACT AND FINDINGS

Slightly different versions of the GiFT have been applied in Ethiopia, Kenya, Uganda, and Tanzania through CARE's Global Water Initiative (GWI). However, the methodology and frameworks have differed considerably with subsequent applications of the tool. To date the GiFT has been used in coordination with the Gender Analysis Tool.

Strengths	Limitations
Participatory process which captures the perspectives of community level stakeholders	The process of scoring of the indicators could be clarified
Once scored the aggregation process is straight forward	Focus of the GiFT is limited to the community level; external enabling conditions effecting functionality are absent
Can be administered by non-WASH experts	Links to specific recommendations needs to be improved

LOCAL GOVERNMENT IWRM SUPPORT ASSESSMENT

The Local Government Integrated Water Resources Management (IWRM) Support Assessment is a tool that has been used in the East Africa Global Water Initiative (GWI) to assess the support given by partner organisations to local governments in GWI partnered districts. Capacity support to local governments is crucial for the delivery of sustainable services at the community level and is enveloped in GWI's strategic objectives. Developed by CARE, this tool assesses district-level engagement in IWRM as well as the perception of GWI support felt by the district stakeholders. The results of this assessment are to inform future work with local governments and highlight information on local government partnerships that can be used by implementing organisations and GWI partners. The tool has been applied annually and facilitates a longitudinal comparison of scores over time.

GENERAL DESCRIPTION

Target: Local governments of districts reached by GWI.

Objective: To assess Global Water Initiative efforts towards their strategic objectives on enhancing local government capacity in IWRM interventions and on addressing gender equity and diversity issues in IWRM.

	Local Government self assessment						Local Government assessment of support provided by GWI partners			
	Current trend			Trend since 2009			GWI support provided			
Key Area	1	2	3	Worse(1)	same (2)	better (3)	none (0)	minimal(1)	some (2)	significant(3)
Policy, Planning and implementation	28%	60%	12%	4%	44%	52%	8%	28%	24%	40%
Personnel and finance	28%	32%	40%	0%	28%	72%	16%	16%	44%	24%
Learning, Harmonized information systems and M&E	27%	53%	20%	10%	67%	23%	3%	23%	50%	23%
Coordination Relationships	25%	45%	30%	5%	70%	25%	10%	15%	60%	15%
Total	27%	48%	26%	5%	52%	43%	9%	21%	45%	26%

Areas: Policy, planning and implementation; personnel and finance; learning, harmonised information systems and monitoring & evaluation; coordination of relationships of District government downwards and upwards (with communities and regional/ national government).

Indicators: There are 20 indicators in total, distributed across the different areas as follows: policy, planning and implementation (5); personnel and finance (5); learning, harmonised information systems and monitoring & evaluation (6); coordination of relationships of district government downwards and upwards (4).

Methodology: One guiding question per indicator to aid local government to a) self-assess each indicator, scoring on a scale of 1-3 according to scoring labels provided in framework b) provide a score (1=worse, 2=same, 3=better) on level of improvement from the previous year c) assess support provided by GWI partners (No=0, Minimal=1, Some=2, Significant=3) and general quality of support provided to local government (1=getting worse, 2=same, 3=getting better). Overall scores sub-totalled per area and overall total produced.

Outputs: Numerical score per district synthesised to the regional level demonstrating overall perception of support provided to local government and a score.

Tool format and language: Downloadable Word document; English.

Resource Link: This tool along with other resources are available: http://water.care2share.wikispaces.net/TOOLS

IMPACT AND FINDINGS

The tool has been applied in Ethiopia, Kenya, and Tanzania (three times in each country). To address the issues highlighted through the tool, GWI has committed to working with the district governments to monitor the sustainability of the infrastructure for an additional five years. It is hoped that the tool will eventually be used as an independent self-assessment for local government.

Strengths	Limitations
Simple process to synthesise overall score	Guidance on scoring could be improved
Data has facilitated a longitudinal look at IWRM	To date the overall score and recommendations have been tailored to GWI partnered Districts; unclear what contextualisation (if any) would be required to apply in other areas
Potential for tool to be adopted by local government as a self-assessment tool	

WASH LIFE-CYCLE ASSESSMENT

The tool was developed as part of a master's thesis and is used to assess the effectiveness and viability of completed water and sanitation projects. The framework consist of a matrix, the dimensions of which are defined by five sustainability factors and five project life stages (needs assessment, conceptual design and feasibility, design and action planning, implementation, operation and maintenance). The matrix elements (e.g. environmental needs assessment) represent distinct opportunities to address sustainability factors during each life stage. A series of checklists within each matrix element are used to quantify sustainability. To determine the score of a project the evaluator assigns a rating (0-4) to each matrix element, depending on the number of sustainability recommendations (check boxes) completed. If none of the recommendations are met, the matrix element is 0 (poor evaluation). If all of the recommendations are met, the matrix element is 4 (excellent evaluation). The potential score for each sustainability factor or life stage is 20, while the total possible score is 100. The tool checklist has been adapted beyond the water and sanitation context. The cost of applying the tool is unclear.

GENERAL DESCRIPTION

Target: Project managers (implementing organisation) or knowledgeable stakeholders.

Objective: To assess the effectiveness and viability of completed water and sanitation projects, either as a self-assessment or a third party assessment.

Areas: Socio-cultural respect, community participation, political cohesion, economic sustainability, environmental sustainability.

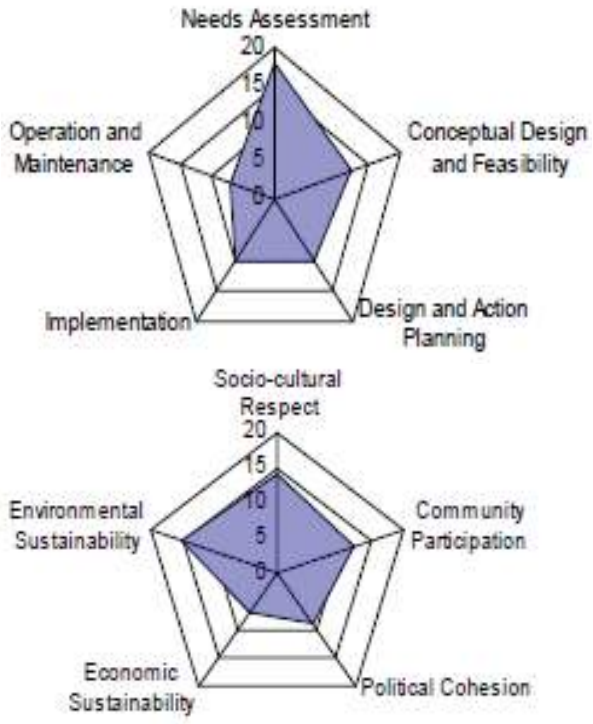
Indicators: Checklist of 100 sustainability recommendations guiding questions (4 per matrix element).

Methodology: A rating (0-4) for each matrix element, depending on the number of sustainability recommendations (check boxes) that are completed.

Outputs: Provides an overall sustainability score on a scale of 0-100 and a score for each project life stage and each sustainability factor (out of possible 20 points) presented on a radar diagram.

Tool format and language: PDF; English.

Resource Link: McConville, J.R., and J.R. Mihelcic, 'Adapting Life Cycle Thinking Tools to Evaluate Project Sustainability in International Water and Sanitation Development Work,' Environmental Engineering Science, 24(7):937-948, 2007. (related M.Sc. thesis can be obtained at: http://cee.eng.usf.edu/peacecorps/5%20-%20Resources/Theses/Assessment/2006Mcconville.pdf)



IMPACT AND FINDINGS

This tool has been applied to two projects in Mali, West Africa. The framework and checklist were adapted and applied to an improved cook stove project in Honduras, a domestic irrigation project in Benin, and a domestic biogas project in Uganda.

Strengths	Limitations
Easy to use	Unclear how the findings have been utilised to date to improve planning
Stimulates reflection on sustainability factors within the context of the project life-cycle	Scoring is highly dependent on the recommendations or checklist, which may require customization for each application
Framework is based on extensive literature review	The objectivity of the scoring has not been tested
Can be used as a self-assessment or as a tool for third party assessments	The cost of applying the tool is unknown
Most appropriate as a post implementation tool	

SUSTAINABILITY MONITORING FRAMEWORK (SMF)

The Dutch WASH Alliance (DWA) is a network of NGOs which developed a Sustainability Monitoring Framework (SMF) to measure the extent to which each NGO contributes to sustainable WASH service delivery in their projects. The objective of the SMF is to both highlight the absence of issues which have proven to lead to low sustainability and the presence of factors that promote sustainability. So far, the SMF has been pilot tested in Uganda and Ghana by a total of nine organisations in collaboration with local authorities. These assessments have been funded either by DWA or the partners themselves. The SMF is meant to be included in the on-going programme monitoring and as a result the costs are considered limited; in Uganda the cost of applying the tool was US$1650.

GENERAL DESCRIPTION

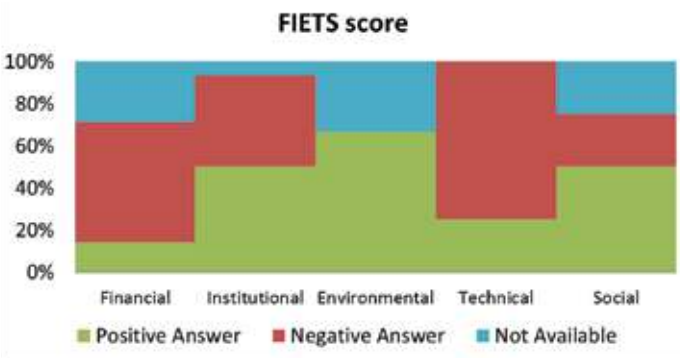
Target: Donors and implementing organisations.

Objectives: Assess the presence or absence of factors with a proven impact on sustainability (positive or negative).

Areas: Financial, Institutional, Environmental, Technical and Social (FIETS).

Indicators: Specifically developed for each country and intervention.

Methodology: Primary data collected through surveys and focus group discussions are used along with a literature review to determine a score (positive effect, negative effective, or no effect) for each indicator. No weighting factors are used in the framework and the questions and sampling methodology are adapted to each context.



Outputs: A series of Excel-based graphs presenting the results for each FIETS dimension. In addition, a 'reliability' score describes the number of questions that are answered and an overall sustainability score represents the aggregate of the five dimension scores.

Tool format and language: Excel and Word document; English.

Reference link: http://www.washalliance.nl/

IMPACT AND FINDINGS

Since piloting was limited to two countries and is very recent, it is too early to determine the impact it has had on the sustainability of the programmes monitored. However, DWA partners have reported that the SMF has motivated them to actively think about sustainability issues and to measure progress towards the likelihood that their work can be sustained.

Strengths	Limitations
It considers factors related to preconditions of sustainability	Only at the pilot stage; too early to see any impact
Flexible and allows for many adaptations (selection of relevant questions for each organisation/intervention)	The built-in flexibility requires adaptation from organisations often used to 'ready-made' tools (questions, surveys)
Automated results presented in an intuitive way	Complexity of data entry and application of formula by organisations to produce results—potential for a more user-friendly programme
Good potential for scalability amongst the 50 DWA partners with a low cost to apply	
Reliability score ensures quality of results	

WASHCOST TOOL

The WASHCost tool is an open-source tool designed to be used by governments, donors and implementing organisations to assess and compare the financial sustainability of different water and sanitation services and share those findings with different stakeholders. It was developed out of the experiences of WASHCost, a five year action research initiative funded by the Bill & Melinda Gates Foundation, which collected data on the life-cycle costs of different WASH services in four countries: India, Burkina Faso, Ghana, and Mozambique. The processes and knowledge gained from WASHCost were applied to this web-based tool, which allows the user to share the life-cycle costs of their planned and existing water and sanitation services and also to do some basic life-cycle costs analysis. It provides an interface to explore and save changes in expenditure, service levels and affordability. The tool provides first time users and non-experts the ability to perform expenditure and service level analyses. It takes only minutes to fill out the online questionnaire, but the total level of effort required to utilise the tool is based on the availability of cost data for the area of concern.

GENERAL DESCRIPTION

Target: WASH sector stakeholders (e.g. donors, implementers, governments, WASH planners, managers, analysts).

Objectives: To aid users to effectively plan, budget, manage and evaluate the delivery of water and sanitation services using a life-cycle costs approach. The tool helps stakeholders consider what the expected capital and recurrent expenditures will be for different technologies and service levels.

Areas: Context, cost, and service level.

Indicators: There are 9 indicators for water and 10 indicators for sanitation. These include context (country, population, and technology), cost (capital and recurrent), and those for service levels. For sanitation the service level indicators include: latrine technology, permeability, environmental impact, usage, and reliability. For water the service level indicators are: access, quantity, quality, and reliability.

Methodology: The user inputs data describing context and expenditures currently made on water and sanitation interventions. The inputs are compared with WASHCost benchmarks for a stated technology. Finally, the user inputs information that is used to determine the service levels.

Outputs: Summary reports are produced that can also be saved to a user dashboard or shared via a web-link. These reports contain information on the capital and recurrent expenditures (total and per person) that are presented against a service level categorisation determined using WASHCost benchmarks: high, standard, sub-standard, and no service for water, and improved, basic, limited, and no service for sanitation.

Tool format and language: Web-based; English and French.

Resource Link: http://www.ircwash.org/washcost.

IMPACT AND FINDINGS

The sharing function of the basic tool provides an easy to interpret report, which can be used to communicate basic expenditure and service level information. These reports can be modified, which allows people to explore the impact of changing the values. An advanced version of the tool is being developed that will provide more detailed risk assessments (e.g. affordability and asset management) as well as estimates of potential costs over time and value for money on targeted investments, which will be based on benchmarks and calculated capital maintenance expenditure. The advanced tool will have the capacity to link to third party information systems so that reports can be generated automatically

Strengths	Limitations
Simple user interface	Cost benchmark ranges are based on data from 4 pilot countries at the moment and may not be analogous to all situations/contexts
Presents user inputted cost and service level information that is easy to interpret	Quality/utility of the results are based on accuracy and detail of user inputted data
Reports can be saved in an online dashboard and shared	

PLANNING-ORIENTATED SUSTAINABILITY ASSESSMENT (POSAF)

POSAF was developed in 2013 and facilitates communication and reflection between planners, and stakeholders and users, in order to establish consensus on water-related problems. The key steps are participative definition of alternatives, technical feasibility study, participative criteria development, and analysis of trade-offs. The concept underlying the framework is the need to redefine sustainability for each planning scenario. The tool produces weighted criteria that reflect stakeholder inputs. The current version of the framework has been informed by preliminary results from its partial implementation in five countries. It has only been fully applied once, in Mexico, where it was used to inform the choice of wastewater technology. The cost of the framework application is unknown.

GENERAL DESCRIPTION

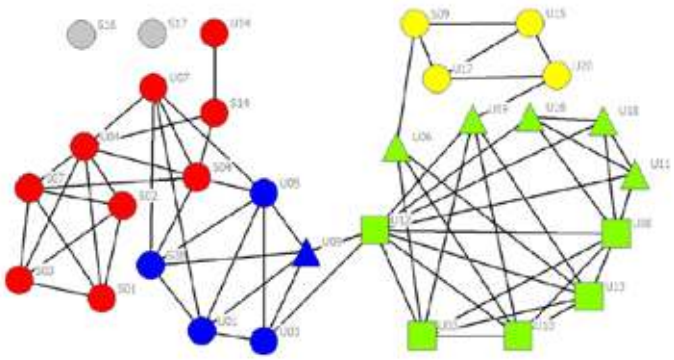
Target: WASH planners.

Objective: To make stakeholder participation in sustainability assessments more consequential in order to facilitate sustainable technological choices.

Areas: Environment, cost and benefits, user issues, institutional issues.

Indicators: Environment, cost and benefits, user issues, institutional issues; the number of indicators is variable, depending on the context.

Methodology: Participatory processes are used to analyse different planning scenarios. Following a technical feasibility study further participatory assessment is used to analyse trade-offs of the different scenarios and create quantitative criteria and weighting used for assessing future plans.



Outputs: Weighted criteria are produced through the process. In addition a visualisation of the relationships between each stakeholder is created through a complex statistical process. In the graphic shown, the nodes represent respondents, the colours represent their responses grouped through a qualitative process. The node shapes and lines reflect statistical relationships between the individual responses for each user.

Tool format and language: PDF; English.

Citation: Starkl, M., Brunner, N. Lopez, E., Martinez-Ruiz, J. (2013). "A planning-oriented sustainability assessment framework for peri-urban water management in developing countries." Water Research 47(1).

IMPACT AND FINDINGS

PSOAF has been partially implemented in five countries (i.e. Argentina, China, India, Indonesia, and Nepal). Full scale application has only occurred in Mexico. It has only been applied on the communal scale and has involved only a few case studies. It needs still to be tested in different sectors, for different levels of government.

Strengths	Limitations
Participative process including local stakeholders Flexible framework able to draw on a variety of methods to adapt to context	Implementation requires adaptation of the framework to the local context (e.g. selection of adequate indicators) Process requires trained specialists to facilitate groups for data collection and conduct analysis Guidelines explaining process are very unclear and target an academic audience

SUSTAINABILITY CHECK

Since 2008, UNICEF Mozambique has implemented six rounds of sustainability checks for the 'One Million Initiative' rural WASH programme (2007-2013). This monitoring tool was designed to be used by independent auditors to assess the sustainability of the WASH facilities and make recommendations to programme managers. The average cost is US$65,000 per assessment. Other UNICEF country programmes in Rwanda, Malawi and Zambia have developed similar checks greatly inspired from the check developed in Mozambique.

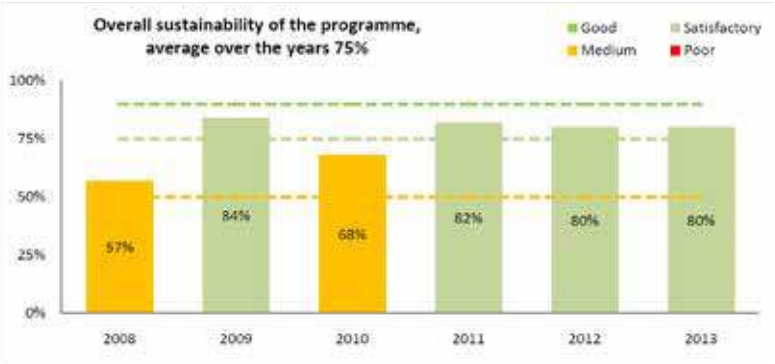
GENERAL DESCRIPTION

Target: UNICEF project and programme planners.

Objective: To assess the sustainability WASH infrastructure.

Areas: 5 weighted factors: institutional (10%), social (40%), financial (10%), technical (30%) and sanitation (10%) (these have evolved over time to include sanitation as independent factor).

Indicators: Defined for each factor and allocated a score based on responses to sub-indicator questions at the community and district levels.



Methodology: Random sampling is carried out on 10% of programme interventions (water points and open defecation free (ODF) villages). Data is collected through semi-structured focus groups with the district authorities, facility audits of water points, audits of ODF villages and semi-structured household surveys in ODF villages. Indicator scores are averaged to obtain a factor score and then an overall score aggregated to the provincial and programmatic level using averages.

Outputs: Scores and recommendations conveyed through a management memo and audit statement to inform decision makers' corrective action.

Tool format and language: PDF; English.

Resource link: http://www.unicef.org

IMPACT AND FINDINGS

UNICEF has taken follow-up actions, for example, more rigorous technical checks of materials and construction techniques triggered by the identification of the poor quality of latrines. There is potential for uptake by the Government of Mozambique which has included a budget line in its annual sector budget for 2014.

Strengths	Limitations
First sustainability check tool developed (2008)	Tool may not easily transferable to local government
Example of most repeated application (6 times)	Lack of sub-indicators focusing on district functions and national policies related to sustainable WASH
Quantitative and rigorous tool for a limited cost	Remains a programme monitoring tool for UNICEF with limited impact beyond the One Million Initiative programme
Allows UNICEF to keep better track of programmes and provides the government with a snapshot of sustainability that cannot be found in the current system	Lack of ownership of the tool by national and local government
Provides a useful combination of easily interpreted scoring with actionable recommendations and lays the grounds for 'friendly competition' amongst provinces	Cost may be a barrier to uptake by government
Encouraging signs of uptake by the Government of Mozambique	

SUSTAINABILITY INDEX TOOL (SIT)

In 2009 the United States Agency for International Development (USAID) and Rotary International entered into a strategic partnership. The Sustainable Index Tool (SIT) was developed in 2012 during the first evaluation of the projects conducted under the partnership in three countries: Ghana, the Philippines, and the Dominican Republic and was further refined in 2013. It is unique among the tools in that it includes a publically available 'product' which guides users through the assessment steps. The cost of applying the SIT is approximately $50,000 per country.

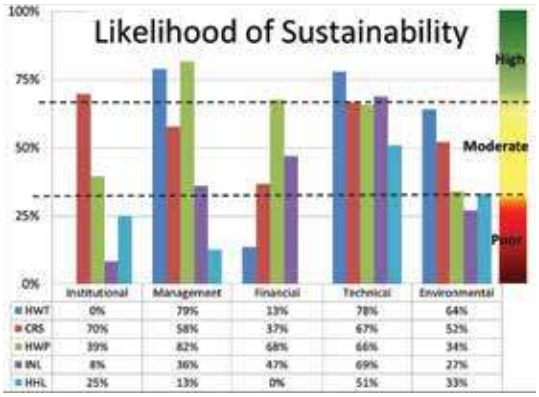
GENERAL DESCRIPTION

Target: USAID, implementing partners, local stakeholders.

Objective: Assess the sustainability of the services provided by WASH project interventions.

Areas: Institutional, management, financial, technical and environmental.

Indicators: Designed for each factor with sub-questions, but no weighting is introduced into the scoring.



Methodology: A statistically significant number of households per intervention type is determined and selected at random within each community assessed. Data collection includes: site inspections, household and key informant interviews, focus group discussions at various levels (service provision, district, national), review of policy documents and technical standards and norms. The analysis is carried out separately for each intervention type and responses are aggregated for each indicator and subsequently averaged for each of the five areas.

Outputs: Presented as aggregate scores and graphically for the programme and district level for each of the different WASH interventions; can also be expressed by intervention type.

Tool format and language: PDF and Excel files; English.

Resource link: http://www.washplus.org/rotary-usaid

IMPACT AND FINDINGS

Following the pilot assessment USAID decided to invest additional funds to develop a guidance document for the SIT process. The tool has also been applied to two project in Tanzania and Kenya and will be used in assessments in at least four other countries in Africa. Although the tool has been applied five times, it is too early to tell the extent to which these results have impacted programme planning or operations.

Strengths	Limitations
Balanced assessment of sustainability considering key issues at all levels (community, district, and national)	Demands 'contextualisation' of indicators and sub-questions to local context
Quantitative and rigorous assessment based on statistically significant sampling approaches	Donor tool with lack of ownership of the tool by national and local governments
Includes both urban and rural interventions	Complexity, large number of indicators and cost to implement may be a barrier
High potential for scalability and encouraging signs of uptake by USAID	

TOOL FOR PLANNING, PREDICTING & EVALUATING SUSTAINABILITY (TOPPES)

ToPPES was developed by Water and Sanitation for Africa (WSA), a pan-African organisation, as a decision support system to analyse and predict service delivery sustainability for WSA project managers, although results would be relevant to local government officials. The model was developed in Ghana from a data set created with the help of the national water ministry and the agency responsible for rural and small town water supplies. Although ToPPES has been field tested and modified it has not been fully applied. Data were collected from 4,670 households, 441 water committees, and 1,509 water points in 570 communities in 13 districts spread across three regions. The data were analysed to identify those indicators that correlated to system functionality and from this analysis the ToPPES framework was established. WSA hopes to adapt the framework for use in its other countries, however neither the costs of contextualisation nor the cost of full scale execution are known.

GENERAL DESCRIPTION

Target: Project managers.

Objective: To predict service delivery sustainability for WSA projects.

Areas: Socio-economic context, service delivery, water resources/quality/ and environmental needs, technical, financial, O&M and institutional.

Indicators: Each factor has a number of indicators, totalling 23, which are scored by answering 92 yes/no sub-indicator questions. Scores are then weighted according to perceptions of importance that resulted from the field test.

Methodology: ToPPES uses a case study approach with judgement sampling; a comprehensive list of communities with interventions is used to identify communities where data will be collected. Data is collected through focus group meetings with water committees, physical inspections, and in some cases information from district level is incorporated. Data collection is done by third party contractors or project staff and the responses are field coded. The user interface is designed for real-time analysis.

Outputs: Numeric output indicating the likelihood of sustainability (i.e., scores of sustainable, moderately sustainable, or not sustainable) for the water supply system in question and for each sustainability factor.

Tool format and language: Word document; English.

Resource link: http://wsafrica.org/

IMPACT AND FINDINGS

Since ToPPES has not yet been fully applied it is unclear what the impact of the model will be. In addition to post implementation evaluation, according to WSA, the ToPPES model can be used as a checklist at the project planning stage to ensure that critical factors are included. Currently ToPPES is only designed to evaluate water supply systems in rural areas, but WSA plans to adapt the tool to other contexts and technologies in addition to improving the usability of the tool with the ultimate goal of having a web-based open source application.

Strengths	Limitations
Comprehensive scope of sustainability factors	Limited field testing
Developed in close partnership with Government of Ghana	Focus is on conditions in the community
Can be used in pre-implementation phase	Does not account for national level enabling environment factors
Potential for adaptability to other sub-sectors (urban)	Limited to water supply without inclusion of sanitation

METHODOLOGY FOR PARTICIPATORY ASSESSMENT (MPA)

MPA was developed by the Water and Sanitation Program's (WSP) Participatory Learning and Action Initiative, and a comprehensive guide was authored by the WSP and IRC. MPA looks at the link between demand responsiveness, gender sensitive approaches, and sustainability. MPA provides a framework for self-assessment by stakeholders at various levels (community, project, and policy) with the goal of understanding how their actions contribute to sustainability of services. It links outcomes at the community level to institutional arrangements and national sector policies. An assessment using MPA is carried out by a multi-disciplinary team including community members, representatives from the project agencies, field extension staff, a sociologist, participatory development specialist with gender training and orientation skills, and water or sanitary engineer. A sample of communities from the project is selected so that the communities selected are representative in terms of environmental and social conditions. The sample size and rigour are dependent upon the final objectives of the MPA study. Focus groups are established by dividing the community into economic categories (e.g. 'rich and 'poor') through participatory processes such as social mapping. The results of an assessment using MPA can be beneficial for designing for sustainability, monitoring, local capacity building, institutional and policy reform, and gender and poverty mainstreaming. Although the scale and scope of an assessment using MPA can vary, in general, because the wide range of data collection techniques used, the time and level of effort required can be significant – as much as six days per sample community.

GENERAL DESCRIPTION

Target: Communities, project staff, project managers, sector policy formulators, and project designers and donors.

Objective: To understand the links between demand responsiveness, gender sensitive approaches and sustainability and how the actions of different stakeholders contribute to the sustainability of services.

Areas: Four areas or 'variables' for sanitation and seven for water. The areas include: sustained services, effective use, demand responsiveness projects, equity for women and poor, community management, institutional support, and policy support. These variables are arranged into two phases: service establishment and management/use.

Indicators: The framework includes a total of 19 indicators each with 1-5 sub-indicators (total of 47 sub-indicators).

Methodology: Physical inspections, focus group discussions, stakeholder meetings, and key informant interviews.

Outputs: There are many potential outputs of an assessment with MPA. One example is the sustainability component scores shown at right (i.e. the 4 indicators of 'sustained services' area).

Tool format and language: PDF; English.

Resource Links: http://www.ircwash.org/news/quantified-qualitative-monitoring

IMPACT AND FINDINGS

MPA has been used to assess over 24 large projects or programmes in 18 countries. It has been used to identify key factors associated with sustained services in 151 rural and small urban communities in Africa, Asia, and Latin America. The World Bank highlighted the MPA (as applied to a WASH intervention in India) as an influential and cost effective assessment. MPA has also been linked with GIS at district level to monitor and improve WASH coverage.

Strengths	Limitations
Social assessment method integrating qualitative and quantitative data	Requires specialist trained in participatory processes and facilitation skills
Stakeholders analyse information and therefore are more likely to internalise information and apply lessons learned	High level of effort required relative to other tools reviewed
Specifically targets marginalised groups	The validity of the data depends heavily on the quality of the underlying work, but can also be influenced deliberately

WASH SUSTAINABILITY SECTOR ASSESSMENT TOOL

This tool allows programme development partner staff to make an assessment of the WASH sector from a sustainability perspective in any given country. It was developed under the Triple-S initiative by IRC and Aguaconsult, originally at the request of USAID, and draws on aspects of a similar tool developed by AGUASAN with funding from the Swiss Development Corporation. The tool can be applied with differing levels of intensity from a quick 'brainstorm' type approach taking one or two people a few hours, all the way through to a structured workshop type approach that may last several days. Costs of application can therefore range between a few hundred dollars and several thousand.

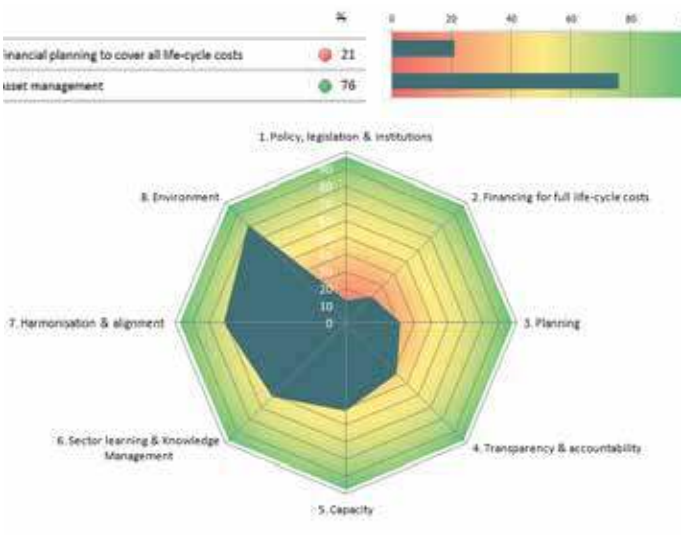
GENERAL DESCRIPTION

Target: Development partner staff with responsibility for the design and programming of WASH sector investments and implementation.

Objectives: To provide a better understanding of programme design, priorities and decision-making within the context of the sector level as opposed to individual project level, as well as identifying key weaknesses or bottlenecks.

Areas: Policy, legislation and institutions, financing, planning, transparency and accountability, capacity, sector learning and knowledge management, harmonisation and alignment, and environment.

Indicators: Each area has a number of indicators: policy, legislation and institutions (5), financing (2), planning (3), transparency and accountability (3), capacity (2), sector learning and knowledge management (1), harmonisation and alignment (2), and environment (1).



Methodology: Three or four guiding questions help the respondent determine a single score, from 0 to 100, for each indicator. Indicator scores are averaged for an area score.

Outputs: Relative strengths or weaknesses of the WASH sector in a given country are summarized graphically through a bar chart for indicator scores and a radar diagram for the area scores.

Tool format and Language: Excel file; English.

Resource Link: http://www.waterservicesthatlast.org/media/files/wash_sustainability_assessment_tool_beta

IMPACT AND FINDINGS

To date the tool has not been proactively disseminated and so the use and impact on organisations is uncertain. The tool has been downloaded 156 times over 10 months.

Strengths	Limitations
Fully automatic and easy to use	The tool is not available to be modified in its current format
The tool is interactive and used to walk the user through a series of critical areas relating to WASH and to trigger reflection and flag any areas for further investigation that appear to be weak or poorly developed	The tool was not fully finalised and some of the indicators require refinement
Provides a framework for general guidance, and could be modified to fit country context	Each country assessment will be unique and may require the investigation of complementary areas depending on the sector, the history of decentralisation and the level of aid dependency
	No specific guidelines are provided to inform the process of modification

WATER, SANITATION AND HYGIENE BOTTLENECK ANALYSIS TOOL (WASH-BAT)

WASH-BAT is a sector analysis and monitoring tool developed in 2011 by UNICEF and World Bank as part of the Marginal Budgeting for Bottlenecks approach. It aims to assess the enabling environment of WASH delivery by tracking the removal of barriers to sustainable and efficient services at national, regional, service provider and community levels. The performance of enabling factors is scored and activities for the removal of each bottleneck are identified, sequenced and prioritised. Funding is then sought and allocated to the activities ranked highest priority. The tool caters to the need of the user and each enquiry can vary in scope (water/sanitation and hygiene, urban/rural), level of detail and the time period covered. The tool was pilot tested in 2012 and the roll-out of version 1.0 is underway in priority countries. The average cost per assessment is unknown.

GENERAL DESCRIPTION

Target: Principally line ministries responsible for WASH, as well as Ministries of Finance, external partners and the sub-national level, including service providers.

Objective: To remove barriers at different service levels to sustainable and efficient WASH service delivery, and increase sector resources.

Areas: Environment and equity, supply, demand and quality.

Indicators: 32 enabling factors: national (18); sub-national (17)—same factors as 'national' omitting legal framework; service provider (10) community (4); each enabling factor assessed by six criteria.

Methodology: Each criteria scored between 0 and 1 by increments determined by user. Scores totalled and categorised by a traffic light system: 0 to 3.0 (red), 3.1 to 5.3 (orange) and 5.4 to 6.0 (green). A low score equates to the presence of a bottleneck. Bottlenecks, their causes and remedial activities identified. Costs of activities estimated, activity funding determined (fully-partially-not funded) and activities prioritised (high-medium-low-not a priority). Bounded and unbounded impact analyses can be generated.

Rural Water		Urban Water	
Enabling Factor	Score	Enabling Factor	Score
Legal framework	4.6	Legal framework	3.4
Policy	5.6	Policy	5.3
Targets	6	Targets	4.8
Social norms	4.6	Social norms	2.3
Institutional leadership	4.7	Institutional leadership	4.1
Stakeholder coordination	5.6	Stakeholder coordination	3.2
Investment plan	4.9	Investment plan	3.6
Programming	3.5	Programming	2.2
Annual review	3.9	Annual review	2.7
Sector and service monitoring	4.7	Sector and service monitoring	2.3
Analysis of equity	3.3	Analysis of equity	0.7
Budget and expenditure adequacy	3.1	Budget and expenditure adequacy	2.9
National budgeting and accounting structure and coverage	2.5	National budgeting and accounting structure and coverage	3.4
Budget utilization	3.8	Budget utilization	3.8
Decentralization	3.7	Decentralization	3.3
Promotion and scaling up water services	3.4	Promotion and scaling up water services	2.6
Private sector development	3.1	Private sector development	1
Supply chain and services	2.9	Supply chain and services	0.7

Outputs: Overall summary report containing Score Report, Funding Report, Activities Report determining how, when and the means by which these bottlenecks will be removed.

Tool format and language: Excel spreadsheet; English, French, Spanish, Vietnamese.

Resource Link: http://www.slideshare.net/ircuser/6-hutton-wash-bat

IMPACT AND FINDINGS

The WASH-BAT has become increasingly popular as a sector analysis tool due to the increasing demand for evidence-based, scaled up, comparable and regularly performed data collection led through country-led processes. It was featured in the UN-Water GLAAS 2012 Evaluation Meeting and has been used to support country-level commitments made by sector ministries for the Sanitation and Water for All High Level Meeting in April 2014. The BAT has the potential for wide-scale use as it is available in four languages and two currencies (EUR/USD).

Strengths	Weaknesses
Can be used to strengthen national and sub-national monitoring through country-driven processes	Can be used autonomously from national monitoring processes
Participatory process involving sector stakeholders	Takes significant time to apply; a simplified fast-track version would be useful, particularly for application at sub-national levels
Straightforward scoring process	
Can be applied at national or sub-national level, to all aspects of WASH or to identify bottlenecks for specific sub-sectors	

SUB-SECTOR SCORECARD

As part of the 'pathways to progress' project of the World Bank's Water and Sanitation Program (WSP), scorecards were developed to measure progress towards national targets and bottlenecks for the rural water, urban water, rural sanitation, and urban sanitation sub-sectors. Each of the four scorecards consists of nine 'building blocks' of service delivery which are classified into three categories or 'pillars': 1) enabling conditions for putting services in place, 2) actions that relate to developing the services, and 3) functions that relate to sustaining the services. Every building block is assessed against specific indicators (3 or 4 indicators per building block), which are different for each sub-sector. Indicator scores are converted into a building block score (from 0 to 3), which is also given a colour indicating the status of the building block and the extent to which remedial action is needed. The sub-sector scorecards are utilized in the context of an overall sector assessment, which includes a financial assessment component.

GENERAL DESCRIPTION

Target: National/state decision makers and planners, donors, implementing organisations.

Objective: To identify bottlenecks and build consensus on high-level priority actions for reform and to ensure that finance is effectively turned into accelerated and sustainable water supply and sanitation service delivery.

Areas: Enabling, developing, and sustaining services.

Indicators: Policy, planning, budget, expenditure, equity, output, O&M (water sub-sector only), markets (sanitation and hygiene sub-sectors only), uptake, and use.

Methodology: Indicator scores (0, 0.5, or 1) are assigned based on relevant resource documents (e.g. strategies, policies, reports) or WASH expert knowledge. Indicator scores are converted into a score (0-3) for each of the nine building blocks, which are subsequently colour coded (<1 = red, which means barrier to service delivery and requires immediate attention; 1-2 = yellow, hindering service delivery and requires attention; >2 = green, building block is in place and contributing positively).

Outputs: Score (0-3) and coloured graphic indicating the status of each service delivery building block.

Tool format and language: Excel files: English and Spanish. The score cards results are presented with the financial processes in a country Report, available in PDF.

Resource Link: http://www.wsp.org/content/pathways-progress-status-water-and-sanitation-africa

IMPACT AND FINDINGS

The financial flows assessment procedure and the sub-sector scorecard were initially developed as part of the Country Status Overview (CSO) project implemented by WSP in close partnership with the African Development Bank, UNICEF, WHO, and the governments of 32 countries in sub-Saharan Africa. This initiative was replicated in seven countries in East Asia and the Pacific and two countries in South Asia under the title of the Service Delivery Assessment (SDA), and three countries in Latin America under the Monitoring Country Progress on Drinking Water and Sanitation initiative (or MAPAS in its Spanish acronym). Sub-sectors scorecards were modified (primarily those for sanitation) to better represent the level of service provided in each region and the resulting methodology. Currently there are discussions with governments in Latin America with regard to integrating the process into national planning and monitoring cycles. WSP has recommended that – depending on country interest – the scorecard could be used every two years aligned with the government cycle of reviewing sector progress and as a needs diagnostic for development partner support.

Strengths	Limitations
Straight forward scoring and analysis processes. Sector-wide assessment that can be tailored to national context and targets. Strong focus on factors at the national level. Together with the score card it can be used to understand the financing bottlenecks and issues across sub-sectors.	Scorecard requires modification to include sub-national interests. Captures limited information at the sub-national level, which is needed especially in countries that are highly decentralised.

ENABLING ENVIRONMENT ASSESSMENT

To work at scale, service delivery requires a strong and supportive enabling environment. The World Bank worked with stakeholders to develop the Enabling Environment Assessment, which can be used to systematically assess, strengthen, and monitor progress in sanitation and hygiene programmes at the national and sub-national levels. The tool is composed of eight essential dimensions used to describe the enabling environment. Each dimension has six indicators or 'components', which are structured as a checklist. There is one point possible for each component, and once all components have been assessed they are aggregated per dimension to produce a score of low' (0-2), 'medium' (3 or 4), or 'high' (5 or 6). Low scores demonstrate a weakness in the enabling environment that needs to be addressed to reach sustainable service delivery at scale. Some of the indicators may be country-specific, and therefore a knowledgeable WASH expert should assist in developing the final checklist. An independent consultant carries out a 2-3 week baseline assessment and an additional 2-3 week endline assessment. This is combined with a consultation process whereby stakeholders are engaged a dynamic process of meetings and workshops.

GENERAL DESCRIPTION

Target: National and regional stakeholders (e.g. programme planners, donors, government).

Objective: Monitor, assess, and improve the enabling environment for sanitation and hygiene programmes.

Areas: Policy, strategy and direction; institutional arrangements; programme methodology; implementation capacity; availability of products and services; financing and incentives; cost-effective implementation; monitoring and evaluation.

Indicators: Each dimension has 6 indicators which form a checklist.

Methodology: Indicator scoring is binary (0 or 1) and scores aggregate to a dimension score of 0 to 6, for each of the 8 enabling environment dimensions.

Outputs: A score of high, medium and low and a stop light graphic is used.

Tool format and language: PDF report; English.

Resource: http://documents.worldbank.org/curated/en/2008/04/16666526/synthesis-four-country-enabling-environment-assessments-scaling-up-handwashing-programs

IMPACT AND FINDINGS

This tool was developed to determine the programmatic and institutional conditions needed to scale up, sustain, and replicate the sanitation marketing programme approaches in two Indian states. The checklist components were adapted and applied in two additional countries: Tanzania and Indonesia. The results of the assessments carried out in these three countries were used to identify key bottleneck to reaching sustainable, at-scale service delivery and by comparing baseline to the endline results, the programme impact could be evaluated. Key lessons included highlighting areas to: improve local capacity (government and private sector), develop performance-monitoring-based benchmarking systems for local government, and encourage community-based monitoring and self-reporting. The tool was integrated into a broader learning strategy, which facilitated the identification of key lessons and links to action and also stimulated additional learning questions for continued work in the thematic area (sanitation).

Strengths	Limitations
Accurately captures national level factors	Developed for sanitation and hygiene programmes, would require modification to be applied to water programmes
Straightforward analysis process	Captures limited information at the local level
Easy to interpret results	Scoring methodology (0 versus 1) could be clarified
Successfully linked to a broader learning strategy, which maximize the utility of the tool's outputs	

SECTOR WIDE INVESTMENT AND FINANCING TOOL (SWIFT)

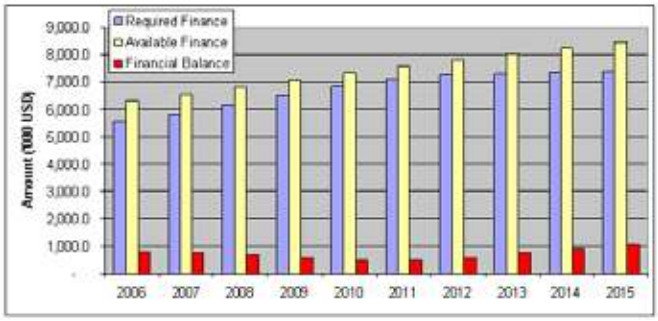
SWIFT is a computer-based decision-support tool for water supply and wastewater financing. It was developed in response to the demand from African governments for a tool that can help create long-term financial plans and budgets and support decision-makers in analysing the financial viability of WASH sector programs. SWIFT was developed by the World Bank's Water and Sanitation Program (WSP) in the African region with financial support from the World Bank and in collaboration with the EUWI Finance Working Group. Designed for application at the country level, SWIFT uses financial plans and budgetary information to identify gaps in financing, better understand resource flows and model scenarios for future spending. The financial gap analysis is conducted by sub-sector (rural/urban, water/sanitation), which can assist sub-national planning units. The tool also highlights strengths and weaknesses in existing information monitoring systems and presents results incorporating the uncertainty of planning based on poor information. The cost of each application is unclear. It has been tested at various stages in Uganda, Mozambique and Kenya by WSP staff. This tool is not publicly available.

GENERAL DESCRIPTION

Target: National and sub-national governments.

Objectives: To support government understanding of financial balances in the water sector and allow strategic analysis of options available to close those gaps.

Areas: The tool takes the form of five modules: sector definition and target setting; public finance (can show financial flows between institutions and specify regional allocations of funds for capital and O&M expenditure); sector development; service delivery; and policy scenarios, under which separate analyses are conducted.



Methodology: Data from country level inputted into the spreadsheet, a hypothetical scenario presented, policy analysis performed, and financial balances in the baseline presented, after which, indicative policy options are explored.

Outputs: Appropriate expenditure generated using costing methodology designed by PEM Consult to reach specified targets.

Tool format and language: Spreadsheet-based programme; English.

Resource Link: http://www.ircwash.org/resources/sector-wide-investment-and-financing-tool-swift-model-overview-working-paper-draft

IMPACT AND FINDINGS

Application of SWIFT in Uganda, Mozambique and Kenya positively influenced financing of the WASH sector. Anecdotal evidence suggests the tool has had an important impact, leading to increased funding and more strategic funding within the WASH sub-sectors. Comparison of the SWIFT model with the OECD/COWI FEASIBLE model led to a global review on the design of water supply and sanitation financing strategies. Although there were initial plans to roll out SWIFT to all African countries, the SWIFT is no longer actively used.

Strengths	Limitations
Consults country sector institutions and sector stakeholders	Involves a relatively complex technical analysis which cannot be done by unskilled staff
The results produced are disaggregated to a regional level	Significant contextualisation required with each application
Advanced public finances module	
Allocates specific mandates to institutions	

THE RURAL WATER AND SANITATION INFORMATION SYSTEM (SIASAR)

The Sistema de Información de Agua y Saneamiento Rural or SIASAR was developed to assist water sector policymakers, practitioners, and national planners to monitor the development and performance of rural water supply and sanitation services. SIASAR was developed in response to the demand for systematic and reliable information, and is a part of a regional initiative promoted by the Central America and Dominican Republic Water and Sanitation Forum (FOCARD-APS) and supported by World Bank, Swiss Development Cooperation, the Spanish Cooperation, the Inter-American Development Bank, and other partners. SIASAR includes a classification scheme that was developed through workshops and technical meetings held by WASH stakeholders from the participating countries. A ranking is given from A to D (with A being the highest performance and D the lowest) for each of four 'entities': community, infrastructure, service providers, and technical assistance providers. Data is collected through key informant interviews and a technical assessment. Data for the technical assistance providers are collected by representatives of the municipal government and the scoring is based upon the availability and quality of direct support to communities. This support could be provided by local or national sector institutions, NGOs, or the private sector. Once data is collected for each entity: communities, infrastructure systems, service providers, and technical assistance providers and the ranking is established (A-D), then SIASAR automatically generates performance indicators and produces summary reports. This information is aggregated at several geographic levels and is presented on an interactive map.

GENERAL DESCRIPTION

Target: Water policy makers, planners, service providers, and implementing organisations.

Objective: To improve the operational value of existing rural water and sanitation information systems; system classification provides a metrics for comparison (e.g. same system over time or between systems).

Areas: For the system classification: technical; for the other entities: community organisation, environment, service level, financial, and general coverage.

Indicators: Each entity has a different number of indicators: community (8), system (8), service provider (7), and technical assistance provider (5). For the system classification indicators include: water supply, intake structure, conduction line, storage condition, distribution network, storage capacity, micro-shed status, chlorine residual.

Methodology: An operations and maintenance technician or 'circuit rider' collects general community information, conducts an interview with the service provider, and conducts a technical assessment of the system. Information for the technical service provider is collected separately. A ranking is given for each indicator on a scale of 1-4. From this ranking a classification of A-D is given for each 'entity': community, system, service provider and technical service provider.

Outputs: Tables, charts, and map with stoplight.

Tool format and language: Online; Spanish (a multi-lingual platform is being planned).

Resource Link: http://siasar.org/

IMPACT AND FINDINGS

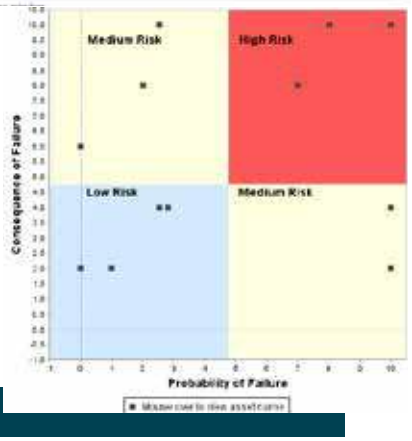
The long-term sustainability and scale-up of SIASAR is being addressed through strong institutional buy-in from regional, national and local governments. To date over 7,700 communities have had data entered (Nicaragua 6,521; Honduras 868; Panama 308; Dominican Republic 31). In addition, the governments of Costa Rica, El Salvador, Guatemala, Peru (region of 'La Libertad '), and Mexico (State of Oaxaca) are interested in joining the initiative.

Strengths	Limitations
System classification framework is simple	System classification system only has technical focus
SIASAR has been harmonized between countries, although the platform can be adapted	Requires specialized knowledge to replicate platform and mobile data collection system
Once mobile collection and platform are established, data analysis is real-time	

CHECK UP PROGRAM FOR SMALL SYSTEMS (CUPSS)

The Check Up Program for Small Systems (CUPSS) is an asset management tool developed and maintained by the United States Environmental Protection Agency (EPA) to encourage small drinking water and wastewater sustainability in the US. This desktop software programme 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. The development of CUPSS was a response by the EPA to a need from communities and trainers for an easy-to-use asset management support programme. CUPSS can be used according to the discretion of the user—from tracking all operation and maintenance activities to long-term maintenance such as asset replacements. CUPSS was pilot tested on 20 systems across eight states with asset management programmes implemented at different stages. The outputs of CUPSS can be used to justify water charges and help a utility to identify preventive measures to fully meet customers' expectations at an appropriate cost. This tool is available free of charge.

GENERAL DESCRIPTION



Target: Operators of small-scale water and wastewater systems.

Objective: To help small drinking water or wastewater systems manage their physical assets, track maintenance and replacement, plan annual budgets, and provide an overall plan for the management of the water system.

Areas: Inventory, O&M, finances, check-up.

Indicators: 11 indicators across all areas: inventory (3 with 8 sub-indicators); O&M (4 with 180 sub-indicators); finances (2 with 6 sub-indicators); check-up (2 with 6 sub-indicators).

Methodology: Primary data is collected by the user and inputted into the computer program, which can be downloaded from the EPA's website.

Outputs: Record of assets; a schedule of required tasks; a tailored asset management plan focussing on response time, planning, and coordination; as well as an asset risk matrix, which projects the probability of failure and the consequences of failure.

Tool format and language: Desktop software with supporting documentation; English.

Resource Link: www.epa.gov/cupss

IMPACT AND FINDINGS

The EPA offers training webinars and a wide variety of digital resources to assist water and wastewater specialists in the management and operation of their systems. The user's guide introduces asset management through a step-by-step approach, using CUPSS as the foundation; provides exercises to build understanding of concepts; and provides detailed information on how to use the CUPSS software tool publicised on their website. CUPSS has over 3,000 registered users from each of the 50 US states and over 40 international users.

Strengths	Limitations
Free software and support	Designed for application in the United States for service providers that utilise sophisticated technologies
Easy-to-use step-by-step programme	Not appropriate for service providers using less advanced technologies (handpumps, gravity fed systems, etc.)
Simple interface	No tablet or internet-based applications of CUPSS currently exist, use limited to desktop.
Comprehensive support materials easily available	Requires a computer with 1 GHz processor, 512 MB RAM, 256 MB memory, and Windows 95 or later

FINANCING FOR ENVIRONMENTAL, AFFORDABLE AND STRATEGIC INVESTMENTS THAT BRING ON LARGE-SCALE EXPENDITURE (FEASIBLE)

FEASIBLE is a computerized decision support tool developed by the Organisation for Economic Co-operation and Development (OECD) and COWI, with the support of the Government of Denmark. This tool aids local and national governments in strategic financial planning for public water supply, wastewater and sanitation infrastructure. Estimated expenditures are predicted for capital investment, management, and operation and maintenance using various service delivery scenarios. This information helps governments in filling existing gaps in urban and rural WASH services using identified funds (i.e. grants, loans, user charges and public subsidies). Costs are assessed at the service level, taking into account affordability constraints for households and public budget limitations. The tool has been applied primarily in urban contexts in over fifteen countries. It has been used in Central Asia and in Eastern Europe to support compliance with EU Environmental Standards, and most recently it has been adapted by African governments to support the attainment of public policy targets. FEASIBLE is an open-source software.

GENERAL DESCRIPTION

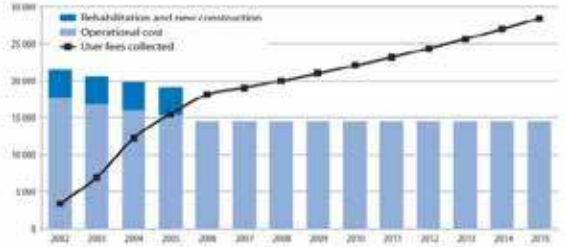
Target: Local and national government staff with responsibility for creating financing policy for water and sanitation investments.

Objective: To support constructive dialogue and effective programme implementation through the creation of affordable and realistic financing strategies and cost-effective use of resources for the WASH sector.

Areas: Solid waste, water supply, wastewater, supply of finance.

Indicators: 16 indicators across all areas: solid waste (7), water supply (2, with nine sub-indicators), wastewater (2, with 10 sub-indicators), supply of finances (5).

Figure 5.2. **Expenditure needs versus collected user charges in Armenia (million dram)**



Source: OECD/EAP Task Force, Ministry of Finance and Economy of the Republic of Armenia (2004), *Financial Strategy for Urban Wastewater Collection and Treatment Infrastructure in the Republic of Armenia* (in English and Russian), prepared by COWI Moscow (www.oecd.org/dataoecd/31/10/34596126.pdf).

Methodology: Data collected using questionnaires, key stakeholder discussions, document reviews. A baseline scenario is developed and the user enters technical and financial data on infrastructure covered by present finance strategies.

Outputs: Technical results, expenditure needs, financing and financing gap, with the option to view aggregated values for water supply and wastewater areas.

Tool format and language: CD Software with accompanying user guide; results can be exported to Excel; English.

Link: http://www.cowi.com/menu/project/EconomicsManagementandPlanning/Financialanalysesandlaw/Pages/feasiblemodel.aspx

IMPACT AND FINDINGS

A range of country specific positive changes have come as a result of using FEASIBLE, for example in tariff policy and institutional frameworks, and in increased financing for water supply and sanitation. It has also helped inform realistic deadlines for meeting the requirements of environment and water-related European Commission Directives by EU accession countries/ new EU Member States (e.g. Bulgaria) and candidate countries (e.g. Turkey). The tool is improved and refined on the basis of the feedback received from practitioners. The Sector Wide Investment and Financing Tool (SWIFT) model borrowed lessons from FEASIBLE. The process of using FEASIBLE has led to positive consensus building and provides a solid foundation for political and social policy debates about water supply and sanitation.

Strengths	Limitations
Easy to use software	Training in use of FEASIBLE required, and it calls for well-developed modelling skills
Rigorous methodology, which includes sophisticated modelling of investments	Significant contextualisation needed for use in some countries, without which there is a danger of over-simplification
Allows user to test various financing scenarios including additional finances from water users, public budgets, donors, IFIs and private sector	Focuses on infrastructure

TECHNOLOGY APPLICABILITY FRAMEWORK (TAF) AND TECHNOLOGY INTRODUCTION PROCESS (TIP)

The WASHTech consortium began a project in 2011 with the goal of strengthening sector capacity to make effective investments in new WASH technologies. The Technology Applicability Framework (TAF) was created as a tool to obtain a consolidated picture of the applicability, scalability and sustainability of individual WASH technologies that are implemented in a specific context for providing lasting services. It can be used as a planning assessment tool and also for monitoring during and after implementation. TAF not only assesses WASH technologies, but in coordination with the Technology Introduction Process (TIP), can be used to identify the crucial links and interdependencies between technologies and investment models that are used to introduce these technologies. To date TAF and TIP have been applied in Ghana, Burkina Faso, Uganda, Nicaragua and Tanzania a total of 20 times. The main costs are related to transportation, allowances and accommodations for participants and have been approximately US$3,000 per technology assessment and region.

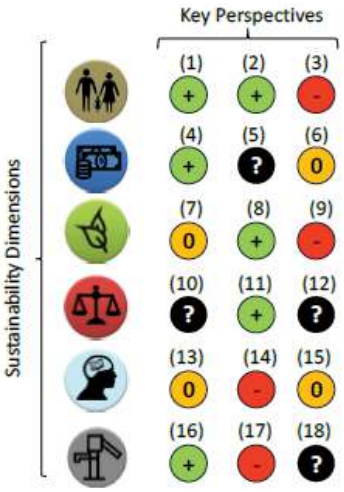
GENERAL DESCRIPTION

Target: District and national government, R&D institutions in developing countries, donors/ development partners, local and INGOs, small and medium enterprises, training and academic institutions.

Objective: Project the applicability, scalability and sustainability of individual WASH technologies.

Areas: Social, economic, environmental, institutional, technological, and knowledge.

Indicators: Each of the 6 areas has one indicator related to each of three different perspectives of key actors involved: 1) user/buyer, 2) producer/provider, or 3) regulator/investor/facilitator. Each of the 18 indicators has between two and six sub-indicator questions for a total of 57 questions.



Methodology: Data collection methods include a desk study of secondary data and focus group meetings with key stakeholders, as well as limited household surveys using joint field visits. Scoring of the indicators is done by the focus groups involving all key actors. They answer the guiding questions on a scale of 3 levels (negative, neutral, positive). Answers are aggregated qualitatively and the 18 indicator scores are presented in a traffic light system (green = positive, yellow = neutral or partial impact, red = critical/alert). If there is disagreement in the group or the basis for the scoring is unclear a black icon and a question mark are used.

Output: In the form of a traffic light per indicator. The output graphic can be interpreted by looking at each row or 'dimension' (e.g. score for environment), each column or 'perspective' (e.g. score for user), and the overall profile (e.g. score for technology) or specific issues (e.g. O&M).

Tool format and language: Available in hard copy, PDF and Word formats; English & French (Spanish to come).

Resource link: http://www.washtechnologies.net

IMPACT AND FINDINGS

TAF identifies issues related to each technology as well as issues related to the enabling environment and through the TIP addresses the design of how to introduce each technology. To date the tool has been applied in coordination with national ministries in each of the three host countries. A memorandum of understanding is being established with all three governments for the use of TAF and TIP in their WASH programme planning. Additionally the TAF has been used in Tanzania and Nicaragua, in the latter country without any external support.

Strengths	Limitations
Comprehensive assessment of sustainability across six areas	Methodology focuses on a specific technology
Can be used as a pre-implementation tool	Results are dependent on the skills of the focus group facilitator
Participative process including all relevant stakeholders	Relies on information derived from select individuals
The outputs motivate stakeholders' dialogue and have the potential to inform sector/policy development	

ROADMAP FOR INTEGRATED WATER RESOURCE MANAGEMENT (IWRM) IN RIVER BASINS

The Roadmap for IWRM in River Basins tool was created to assess efforts to improve governance, environmental protection and risk management. The tool is a desk-based exercise that is performed by development partners in discussion with basin level authorities on a yearly basis with the object of providing a comparison of progress in the area of IWRM over time. Twenty-five criteria are used to rate the progress of IWRM efforts. Scoring for each criterion is based on a stoplight with 4 points for high performance, 2 points for average performance, and 0 points for poor performance. The definitions of high, average, and poor for each criterion are established through a participatory process with basin level stakeholders and incorporate the capacity building objectives of the project or programme. The scores for each criterion are aggregated and expressed as a percent. Because the tool is a desk-based exercise, an assessment requires a minimal level of effort and could be completed through a series of three to four meetings over the course of a few weeks or months.

GENERAL DESCRIPTION

Target: Project or programme staff.

Objective: To assess efforts to improve governance, environmental protection and risk management.

Areas: Integrated Water Resource Management (environment)

Indicators: 25 criteria are used including: river basin organization, stakeholder participation, river basin planning, public awareness, water allocation, water rights, wastewater permits, IWRM financing, economic instruments, regulation, infrastructure for multiple benefits, private sector contributions, water education, watershed management, environmental flows, disaster management, flood forecasting, flood damage rehabilitation, water quality monitoring, wetland conservation, fisheries, groundwater management, water conservation, and decision support information.

Area Scores	2009	2010	2011	2012
Total score	57	47	55	66
Percentage Score	76%	63%	73%	88%

Methodology: Each of 25 criteria is given a score of 0 (low), 2 (middle), or 4 (high) based upon the perceived performance. Scoring is based upon a review of literature and consultation with key informants at the district level.

Outputs: Indicator and area score.

Tool format and language: Word document; English.

Resource Link: This tool along with other resources are available: http://water.care2share.wikispaces.net/TOOLS

IMPACT AND FINDINGS

The framework for the IWRM Roadmap was adapted from the Asian Development Bank. Through CARE's Global Water Initiative (GWI), this framework has been utilised to evaluate the status of IWRM in Ethiopia, Tanzania, Kenya, and Uganda. The results have been used to assess efforts towards the governance, environmental protection and risk management strategic objectives of the GWI; especially with regards to enhancing local government capacity in IWRM and managing resource at the national, regional and local levels.

Strengths	Limitations
Participatory process that captures the perspectives of key authorities at the basin level	Secondary data is used and therefore the validity of the results is dependent on the availability and accuracy of this data
Simple framework with a straightforward scoring and aggregation process	Links between the output scores and specific recommendations could be improved

SUSTAINABILITY SNAPSHOT

The Sustainability Snapshot is a rapid assessment tool developed by WaterAid in Malawi to determine the likelihood that a water supply system will remain functioning in the future. It can be applied to existing infrastructure or to evaluate a community's ability to manage future installations. Stakeholders at the community and district level are asked to rate their confidence in relation to three thematic areas (finance, technical skills, spare parts and equipment). The snapshot seeks to determine if the community has: 1) the funds to carry out repairs, 2) the skills to carry out repairs, and 3) access to the necessary spare parts and equipment to carry out repairs. The scores of the snapshot are used to determine strengths and weakness with regard to community management of water supply infrastructure. WaterAid found that rather than evaluating the sustainability of individual water points, the snapshot was most useful when used to highlight key issues that may be undermining sustainability across a region, district or country. Because of the straightforward nature of the snapshot, the level of effort required is minimal (e.g. assessment in one community per day).

GENERAL DESCRIPTION

Target: Local government, project planners and managers involved with community managed water supply interventions.

Objective: To determine the financial and technical capacity of the community-managed water system as well as the availability of spare parts and equipment.

Areas: Financial, technical, spare parts/equipment

Indicators: N/A

Methodology: Stakeholders select one statement from a choice of three statements for each of the three sustainability 'themes'. The statements are analogous to a Likert scale (e.g. none=1, some=2, all=3). Points are awarded for each theme, and an overall sustainability score is obtained by aggregating.

Financial

1. No funds available for maintenance when needed
2. Fund available but not sufficient for the most expensive maintenance
3. Fund available and sufficient for the most expensive maintenance

Technical skills

1. Technical skills not available for maintenance when needed
2. Some technical skills for maintenance, but not for all
3. Technical skills for all maintenance processes available

Equipment and spare parts

1. Not available when needed
2. Available but not for all repairs
3. Available for all repairs

Outputs: A score for each theme (1-3) and an overall sustainability score (3-9)

Tool format and language: PDF; English

Resource Link: http://www.wateraid.org/~/media/Publications/indicators-water-sector-malawi.pdf

IMPACT AND FINDINGS

The Sustainability Snapshot was developed in 2003 in Malawi. Since then it has been applied extensively in Malawi and Uganda. The process has been adapted for sanitation using four areas (i.e. sanitation facilities, use of latrine, hand washing, maintenance of safe water chain). In addition to using the Sustainability Snapshot as a project assessment tool, it has also been used by WaterAid Malawi as a tool for rapid appraisal of the investment priorities in their project areas.

Strengths	Limitations
Straightforward evaluation, analysis, and interpretation Participatory processes ensure that the perspectives of various stakeholders are represented	Assumes that measuring dependent factors (i.e. financial, technical, and spare parts/equipment) accounts for all the preconditions or independent variables (e.g. institutional training) Maybe considered overly simplistic

WATER FOR LIFE SUSTAINABILITY RATING

The Water for Life Sustainability Rating is a framework designed to help donor organisations identify high performing WASH organisations to fund. It was pilot tested in Honduras in 2011 on a NGO with 20 years of experience implementing WASH interventions. The pilot assessment was conducted as part of an 'Accountability Forum' facilitated by Improve International that brought together WASH NGOs working in Honduras. Feedback from the Forum participants was utilized to refine the framework criteria and methods. Based on the pilot test it is estimated that ratings using the Water for Life framework will cost between $US 15,000-20,000 per evaluation and require one week of field data collection and three to five months total including preparation and reporting.

GENERAL DESCRIPTION

Target: Donors that need to identify organisations to fund.

Objective: Assess organisational capacity for implementing sustainable projects.

Areas: Organisational structure, water services, sanitation, hygiene education, project design and construction, water system long-term O&M, water source protection, community commitment & management.

Indicators: There are 22 indicators; each with a series of 2-11 sub-indicator questions. A total of 101 questions were used in the pilot assessment in Honduras.

Methodology: Judgement sampling is used to collect anecdotal evidence in a case study approach. For the pilot assessment 4 communities were randomly selected out of a total of 159 water projects and between 2-16 households were visited in each community (35 households total). Information provided by the implementing organisation that is the focus of the evaluation is triangulated with data obtained through interviews with water boards, random household visits, community focus groups, and infrastructure inspections. Each yes/no question has a designation of 'basic' or 'high', and based upon the responses for each an overall score is determined qualitatively. A quantitative score can be determined by assigning numerical values to the Likert categories and calculating a percentage.

Outputs: A numerical score is given for each organisation evaluated and a four-colour scheme graphic is provided for each indicator as well as for the overall score.

Tool format and language: PDF and Excel; English and Spanish.

Reference link: http://improveinternational.wordpress.com/programs/accountabilityforum/

IMPACT AND FINDINGS

The output of the pilot assessment in Honduras was a list of key successes and challenges. An example of a challenge uncovered was the financial capacity of rural communities to cover the replacement costs for aging systems. As a result of the pilot assessment the implementing organisation has begun a loan programme to help communities finance rehabilitation costs. The first rehabilitation project is set to take place and the terms require the community to repay the loan in one year at a competitive interest rate.

Strengths	Limitations
It is independent, using the same criteria across programmes, allowing for comparison Rapid assessment (1 week in the field)	Organisations must submit to an assessment and may be reluctant to do so. Large number of question which would require contextualisation (e.g. adjusting benchmarks, thresholds, etc). Case study approach may have limited scalability.

SUSTAINABILITY SELF-ASSESSMENT

This tool is designed to be used by organisations that implement WASH services and interventions. It focuses on the organisations' internal policies and practices. The objective of the tool is to help determine an organisation's performance across four guiding areas, to reveal where policies and practices support sustainable WASH service delivery and the greatest opportunities for improvement. The tool can be used by a small group of core staff in a quick assessment lasting only an hour or so. Equally, the tool can be used as part of an organisation-wide assessment process, reaching from headquarters to field, involving many staff and carried out over the course of one or more days in a workshop setting. The cost of applying the tool is dependent on the number of staff involved and overall detail.

GENERAL DESCRIPTION

Target: Staff from any organisations working on WASH programming either as implementers or funding agencies.

Objective: To measure an organisation's performance in promoting sustainable outcomes from its projects.

Areas: Policy, knowledge, coordination, and monitoring and learning.

Indicators: Each area has a number of indicators: policy (3), knowledge (1), coordination (3), and monitoring and learning (2). There are 2-4 guiding questions for each indicator; however the respondent(s) is required to enter a single score, from 0 to 100 for each of the 9 indicators.

Methodology: An individual or group from each organisation must create an online account and respond to a series of questions. The self-scoring system is as follows: a score of 0 indicates no action or progress toward achieving the practices; a score of 100 indicates the organization uses all best practices. Scores are generated by general area based on the average of indicator scores, and resources are recommended for areas where self assessment scores are low (i.e. less than 30%).

Outputs: Scores for each of the four areas (policy, knowledge, coordination, and monitoring and learning) presented in bar chart form and recommendations and resources to guide remedial action where called for.

Tool format and language: Web-based, in English and Spanish.

Resource Link: http://www.sustainablewash.org/self-assess

IMPACT AND FINDINGS

The Sustainability Self Assessment tool is the result of the momentum created by a series of meetings that brought together over 100 stakeholders from some 50 organisations to develop a common set of sustainability principles, which became the WASH Sustainability Charter. The tool is hosted by SustainableWASH.org, a platform used to promote the Sustainability Charter and the Self Assessment Tool. To date 131 organisations have signed the Sustainability Charter, qualifying them as a one star organization. Seventeen organisations have signed the Sustainability Charter and completed the Sustainability Self Assessment, giving them two stars. To receive three stars an organisation needs to have an assessment conducted by an external organisation, however to date no organisation has done this. El Porvenir, a Nicaraguan NGO utilised the tool to guide their organisational strategy for 2014 and also translated the tool into Spanish (which is currently available on the website).

Strengths	Limitations
Easy to use and automatically generates recommendations on how to improve areas of weakness	Not designed to assess sustainability at the level of individual projects
Useful as a means to stimulate internal discussion on issues of sustainability	No independent verification of the responses has been done to date
Any organisation, however large or small, can use the tool since it is not necessarily tied to any scale of intervention	The tool is not available to be modified in its current format
The tool reflects on the organisation itself, including its internal policies, training and planning mechanisms	

ANNEX D: LIST OF PLATFORMS

Below is a list of a few platforms that can be used to collect, analyse, and/or present data which is related to sustainability. Additional platforms have been used outside the WASH sector (e.g. http://opendatakit.org/ and http://fulcrumapp.com/).

ACTIVITYINFO BY BeDataDriven: An open source data (online and offline) platform offered as SAAS. It is used by over 600 NGOs, UN agencies, and government agencies including BRAC-WASH, IRC and the Dutch WASH Alliance. It allows organisations to centralise and synthesise data collected through tools like ODK or FLOW together with management information systems, financial reporting systems into simplified mapping, visualisation, and publishing tools. It allows non-technical individuals to work directly with data and turn data into actionable information. www.activityinfo.org/

FIELD LEVEL OPERATIONS WATCH (FLOW) - AKVO/WATER FOR PEOPLE: An open source data platform where mobile phone software is used to collect, analyse and visualise geographically referenced monitoring and evaluation data in real time. It has been used in over 28 countries across Africa, Asia, Central and South America and the Middle East. It is a part of a suite of online tools. www.watermapmonitordev.appspot.com

BLUE PLANET NETWORK: An online knowledge management platform which allows members to archive project information which can be reviewed by third parties. Currently, more than 20 organisations are using this platform as their primary place to store project information. www.blueplanetnetwork.org/programs/platform

BRACinfo—BRAC: is based on activityinfo developed by BRAC-WASH and BRAC-ICT to manage analyse, and visualise linked data sets in order to measure progress and sustainability of BRAC-WASH projects and facilitate such work for non-statistical trained staff. BRACinfo will be linked to SAAS (by end of 2014).
http://ict.brac.net/projects-ict/icaress

mWATER: An open source mobile application for monitoring and mapping of water source contamination. The application has the capacity to collect and analyse data from user customised or pre-defined surveys and guides users through various water quality tests. It is currently being used in Tanzania, Rwanda, Ethiopia, and USA.
www.mwater.co/app/

RE-IMAGINE REPORTING – WATER FOR PEOPLE: An online reporting platform which manages and displays data, information and metrics to allow WASH donors, stakeholders and the public to track the progress of Water for People country programs. Financial data, partnership assessments, and annual analysis of country programmes are visualised and the percentage of the population with sustainable access to water is mapped. It is currently used in ten countries across in Asia, Central and South America and Africa. www.reporting.waterforpeople.org

SMART INFO - CONNECT INTERNATIONAL: An internet-based management information system for organisations involved in planning, monitoring, evaluating and reporting of water projects. Data is stored on a web based database where summary reports are produced for various aspects of a project. Currently available in Access and Excel, a license for SMART INFO costs 350 Euros per year.
www.connectinternational.nl/english/smartmodules/smart-org/info/infostandards.

WASH DATAPOINT – GLOBAL WATER CHALLENGE: A platform which connects existing data sources and disseminates information on water point location and functionality for WASH sector stakeholders. Leveraged data at the global, national, or local levels and from various sources is consolidated as MS Excel or Access ® files. To date, water points in eight different African countries. www.sustainablewash.org/initiatives/wash-datapoint-0

WATER POINT MAPPER – WATERAID: Software which monitors the distribution and status of water and sanitation points in rural and urban areas. The application is based on experiences from WaterAid country programmes in Southern and East Africa regions and is aimed at WASH practitioners and local government staff at the district, sub-district and village levels. www.waterpointmapper.org