

Mapping sustainability assessment tools to support sustainable water and sanitation service delivery



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October 2013

ACKNOWLEDGEMENTS

The authors would like to acknowledge the useful input by the following individuals: Valerie Bey, Kristof Bostoen, and Jo Smet (IRC International Water and Sanitation Centre); Agnès Montangero (Helvetas); Andre Olchewski (Skat); Sam Godfrey, Americo Muianga, Matteus Van der Velden (UNICEF); Helen Petach (USAID); Erica Gwynn (Rotary International); Emmanuel Addai, Ayodeji Fagoroye, and Destina Samani (Water and Sanitation for Africa); and Peter Ryan.

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Cover Photo

Bolivian teacher and two young students at their newly - completed toilet facility (Ryan Schweitzer)

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ABBREVIATIONS

CWSA	Community Water and Sanitation Agency
DWA	Dutch WASH Alliance
FIETS	Financial, Institutional, Environmental, Technical And Social
GoM	Government of Mozambique
NGO	Non-governmental Organisation
O&M	Operation and Maintenance
ODF	Open defecation free
OMI	One Million Initiative
RI	Rotary International
RWSN	Rural Water Supply Network
SAT	Sustainability Assessment Tool (developed by AGUASAN)
SC	Sustainability Check
SIT	Sustainability Index Tool (developed by Rotary International and USAID)
SMF	Sustainability Monitoring Framework (developed by the Dutch WASH Alliance)
ToPPES	Tool for Planning, Predicting and Evaluating Sustainability
UN	United Nations
UNICEF	United National Children's Fund
USAID	United States Agency for International Development
WASH	Water, sanitation and hygiene
WSA	Water and Sanitation for Africa



EXECUTIVE SUMMARY

This report reviews five different sustainability assessment tools that are currently in use for programme monitoring of WASH interventions. The selected tools all have a developed framework that has each been pilot tested and produces an objective and quantifiable output (e.g., final score or percentage) that can be used to trigger improvements to programme design or take remedial actions. The review team found a larger number of tools in circulation, but did not include those limited to one particular technology or to the organisational aspects of sustainability.

OVERVIEW OF SUSTAINABILITY ASSESSMENT TOOLS				
Organisation (type)	Tool	Stage of development	Frequency	Country experience to date
AGUASAN (network)	Sustainability Assessment Tool	Three years (full application-once; limited application-three times)	Initial detailed assessment then 3-4 years	Kosovo, Haiti, Nepal, Mali
Dutch Water Alliance (consortium of NGOs)	Sustainability Monitoring Framework	One year (full application-twice)	Unspecified	Ghana, Uganda
UNICEF Mozambique (NGO)	Sustainability Check	Five years (full application-five times in Mozambique)	Annual during programme implementation	Mozambique (similar framework applied in three other countries)
USAID–Rotary International (collaboration)	Sustainability Index Tool	Two years (full application-three times)	3,5, and 10 years following implementation	Philippines, Ghana, Dominican Republic
Water and Sanitation for Africa (NGO)	Tool for Planning, Predicting and Evaluating Sustainability	One year (pilot testing underway)	Annual	Ghana

The main findings of the review are as follows:

- All five tools share a number of common characteristics. They all consider financial, institutional, environmental, technical and social factors of sustainability (some consider additional factors such as service delivery, management, knowledge and capacity). Further, they have all adopted similar research methodologies and sampling approaches, generally presenting either an overall sustainability score or a score per factor assessed.
- To a large extent, these tools reflect the way the programmes have been designed. As such, they focus largely on the provision level, with less attention devoted to broader policy and governance issues or to the role, capacity and practices of local government. The tools included in the mapping had a combined total of 800 indicators, of which two-thirds are focussed on provision level.
- The stage of application differs from one tool to the other and ranges from pilot testing (e.g., Tool for Planning, Predicting & Evaluating Sustainability—ToPPES) to full application in multiple geographic areas (e.g., the Sustainability Index Tool and the Sustainability Check). As such, their relevance and impact on the programmes cannot be assessed in the same way.
- Even though costs are difficult to compare as they relate to interventions or programmes, on average these tools cost US\$ 35,000 per application. This cost is relatively small considering the size of investments of the programmes assessed.
- The complexity and adaptability of tools varies. But in all cases reviewed, there are positive signs of uptake of the tools within and beyond the organisations which have designed and tested these (including, in some cases, by governments).

The concurrent emergence of a number of broadly similar sustainability assessment tools which share many common characteristics and approaches is in itself an indicator of change in the WASH sector. Collectively these experiences reflect an important transition from an overwhelming concern about building physical infrastructure, to the long-term, sustained provision of permanent services—and by default the legacy of donor and national government investments. One key challenge is to ensure that developments and learning around such tools can also be used to strengthen national monitoring systems, so that they do not remain as largely external “project” or programme instruments.

The further development, application and scaling up of these tools is not certain and there may be a need to let market forces determine which ones endure and which fall by the wayside. However, given the commonalities most of these tools share, there may be a demand to provide “off-the-shelf” components which can be accessed globally and adapted to local contexts and sector requirements. Making aspects of these tools freely available would facilitate and accelerate the rate of uptake by other donor and implementing organisations, and greatly reduce the relatively high initial costs for set up.

1 BACKGROUND

Impressive gains in water and sanitation coverage over the past few decades have been accompanied by the knowledge that in many countries the proportion of non-functioning systems remains unacceptably high, often leading to declines in service levels over time. A number of recent studies have flagged these challenges (IOB/ DGIS, 2012; Lockwood and Smits, 2011; RWSN, 2010), with average non-functionality rates of between 30 to 40% and as high as 67% for handpumps in one sub-Saharan African country (RWSN, 2009). These statistics highlight the historical challenge facing the water, sanitation, and hygiene (WASH) sector—that is, expanding first time access to infrastructure while at the same time ensuring sustainability of existing services. As well as the very real impact on families and communities—such premature and chronic failures represent a challenge to delivering the desired return on investment for both national governments and international donor organisations.

Increasingly, there is a recognition that the underlying causes of premature breakdowns and poor service levels stem from an unbalanced focus on building infrastructure, rather than on facilitating the continuity of services associated with that infrastructure by creating the appropriate enabling environments at all levels. Well-designed infrastructure remains a core part of service delivery; however it is also necessary to invest in support services, financing mechanisms, monitoring and a range of other interventions that collectively will result in services being maintained over time.

1.1 THE EMERGENCE OF SUSTAINABILITY ASSESSMENT TOOLS

Because of these challenges of sustaining WASH services, and also spurred by the on-going global recession, many donor agencies and their implementing partners are under increased scrutiny to ensure aid money is spent effectively and efficiently. Although sustainability has been a concern for decades, a number of much more concrete efforts have been underway over the last three to five years. It is anticipated that this will remain to be a growing trend.

A number of organisations are developing or financing tools that are focused on sustainability as part of broader efforts to monitor and evaluate the lasting impacts of programme investments. Some of these tools have been developed by large organisations and are relatively well known, whilst others are much less well documented. Many of these tools—developed by international or regional aid agencies and NGOs—have differing entry points and linkages with national monitoring frameworks. They often share similar frameworks that identify a number of common areas, or factors, and that are assessed through a combination of methodologies. Even though many of these are still relatively untested at scale, and are themselves a “work in progress”, when considered collectively, the experiences gained by applying the sustainability assessment tools represent an important watershed in the development of the sector.

1.2 PURPOSE OF THE MAPPING

With growing attention on sustainability and the development of a number of such assessment tools there is the need to document experiences to date and to promote dialogue and the sharing of ideas. Supporting coordination amongst organisations that develop and use these tools and ensuring their dissemination in the wider community of stakeholder is therefore highly relevant.

This paper is based on a mapping of sustainability assessment tools undertaken as part of the Sustainable Services at Scale initiative¹. The mapping exercise involves looking at the frameworks and processes involved for each tool, the track record of where and how often such tools have been applied, and an assessment of the impact these tools have had on WASH programming. An overall summary of each tool is found in annex 1. The analysis also looks into the relative cost, complexity (including adaptability), and the likelihood for scaling up, both within the development partner that designed the tool and more broadly with national governments.

As part of the preliminary mapping exercise a broader set of tools were found to exist that address a wide range of sustainability aspects, in various forms, often as simple checklists (see a summary list in annex 2). Documents that describe general guidelines on sustainability were not included. Tools with the following characteristics were included in this mapping:

1. Possesses a comprehensive framework that assesses all aspects of sustainability and is not limited to a single technology;
2. Has been applied in programme monitoring at an operational level (as opposed to sector or national level assessments);
3. Has a track record of being applied or tested; and
4. Produces an objective and quantifiable “result” (e.g., a final score or percentage) that can be used to improve programme design or take remedial action.

Preliminary assessments were made on the basis of information available in the public domain such as articles, grey documents and presentations. The original “owners” of these tools were then contacted and asked to validate the paper’s findings, and where necessary, to add further information. As these tools are largely on-going in their development and most documentation is in the form of working iterations, inevitably there were some gaps in understanding the detail and function of the tools².

1.3 PRESENTATION OF THE SUSTAINABILITY ASSESSMENT TOOLS

The following section provides a short summary of each of the five tools identified to have qualified for inclusion in this review. An overview of the technical design and impact of each tool to date is provided, with an assessment of their strengths and weaknesses. In addition, each tool has been given a rating for several primary criteria used in the review, namely: application, cost, complexity and scalability. Each criterion as used and applied in this paper is described below:

- **Application** refers to the extent to which the tool has actually been carried out by the organisation which has designed it. The composite scores identified for each tool considers the difference between pilot testing, the use of limited or “light” versions of the tool, and full scale application. It is important to note that all tools were considered dynamic and have been changed, and improved, with successive iterations.
- **Costs** are considered as relative to the overall scale of programme investment and difficult to compare, as they can refer to an intervention or programme and are therefore highly dependent on their size.
- **Complexity** is assessed in terms of 1) the number of indicators and sub-indicators that make up the framework of each tool, as well as 2) the methods used to collect the data, and 3) the overall adaptability of the framework. A large number of indicators and sub-indicators equates to a high level of complexity. Different data collection methods require different expertise and levels of effort. Qualitative data collection often requires more time to collect and analyse, and therefore is considered more complex. Therefore focus group meetings and key informant interviews were rated as more complex than structured household questionnaires or checklist technical audits. Also considered in the complexity rating was the adaptability of the tools. Tools that were designed for a specific country or context require more effort to adapt and are therefore seen as more complex. The complexity rating for each tool

1 Sustainable Services at Scale of Triple-S (Triple-S (<http://www.waterservicesthatlast.org/>)) is an initiative managed by IRC International Water and Sanitation Centre of the Netherlands; this landscaping was carried out by Aguaconsult of the United Kingdom (<http://www.aguaconsult.co.uk/>), a collaborating partner in Triple-S.

2 The authors accept full responsibility for the limitations of this paper and any related errors. Further comments and feedback are welcome on this paper and should be sent in the first instance to Julia Boulenouar (j.boulenouar@aguaconsult.co.uk).

reflects a composite of these three equally weighted components, i.e., number indicators, methodology, and adaptability.

- **Scalability** refers to the potential for the tool to be adopted and scaled up. Scalability can be internal (within the organisation or between organisations that are part of a network) or external (beyond the network to other organisations and even national government). Scalability of a tool is inherently related to the conditions surrounding the development of the tool. The size and reach of the organisation that developed the tool, its experience and impact in the WASH sector, or the number of organisations that have bought into the development of the tool, are among the few factors which affect scalability, as defined in this report. In general, scalability is also linked to the built-in flexibility of the tool and is inversely related to the complexity criterion.

The following section provides readers with an at-a-glance summary of each tool with the caveat that much of this information is relative. For example, scalability within a group of networked NGOs may be highly likely, but may not extend to other development agencies or government ministries as costs are relative to the scale of programme investment. Where no information is available concerning a facet of a tool, this is indicated.

2 SUSTAINABILITY ASSESSMENT TOOLS

2.1 AGUASAN- 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. A less detailed evaluation using similar methods was 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 have ranged between US\$ 2,000-20,000 and have not exceeded the cost of conventional project evaluations for the organisations involved.

Application			
Cost			
Complexity			
Scalability			

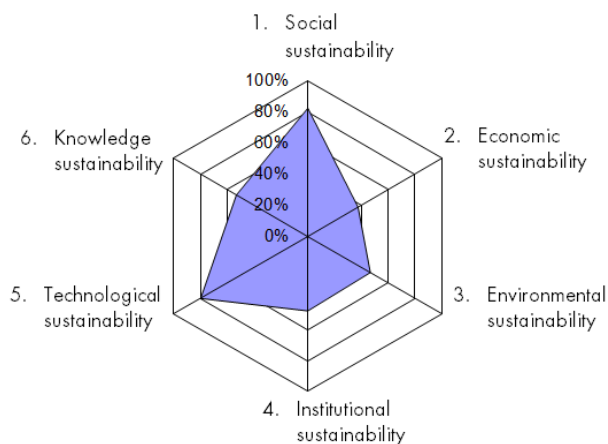
2.1.1 Technical Design

Sampling: insufficient information available for sampling and on primary data collection.

Data collection methodologies: primary and secondary data collection, review of policy and programme documents, semi-structured interviews with key informants, and field observations.

Sustainability factors: Social, Economic, Environmental, Institutional, Technological, and Knowledge.

FIGURE 1: SUSTAINABILITY ASSESSMENT TOOL (SAT)



1. Social 83% Social equity 80% Respect of tradition 90% Participation 80% Empowerment 80%	4. Institutional 48% Enabling environment 50% Good governance 40% Strong institutions 30% Private sector 60% Coordination, collaboration 60%
2. Economic 38% Financial viability 40% Cost recovery 30% Mobilising resources 60% Productive use of water 20%	5. Technological 80% Sustainable technologies 80% Choice of technologies 80% Local technologies 80%
3. Environmental 47% General principles 50% Closing the loop 70% Environmental policy 20%	6. Knowledge 53% Knowledge management 80% Evaluation 40% Advocacy 40%

Indicators: each of 22 indicators has between two and eight sub-indicator questions (total of 110 questions) to derive indicator scores on a scale of 0 to 100. Indicators are adapted to meet the unique assessment requirements of the local context, ensuring appropriateness.

Scoring: obtained for each factor by taking the average of the indicators scores for the area studied.

Output: Factor scores are graphically represented by a radar graph, and the quantitative indicator scores are shown in a traffic light system: low sustainability (red: 0-39), potential sustainability (yellow: 40-59), or high sustainability (green: 60-100) (see figure 1). The SAT output report contains recommendations at the sector level which are useful for future planning and assessment,

2.1.2 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. Since then, the Government has mobilised greater finances, increased its efforts to protect watersheds, improved water quality monitoring, and conducted two workshops on rural water system management.

Strengths	Weaknesses
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.
Participative 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.

2.2 DUTCH WASH ALLIANCE- 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 been proven to result in 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 the DWA or the partners themselves. The SMF was meant to be integrated in on-going programme monitoring initiatives. As a result the cost for SMF implementation was considered limited—but organisations were not able to provide a rough estimate of the cost incurred.

Application			
Cost			
Complexity			
Scalability			

2.2.1 Technical design

Sampling: insufficient information available for sampling and on primary data collection.

Data collection methodologies: surveys, focus group discussions and documentation review

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

Indicators: are presented in the form of questions, which are defined for each factor, targeting actors at different levels (consumer’s level, operating level, and governing level). These are specifically developed for each country and intervention.

Scoring: tracks whether there is a positive effect, negative effect or whether the effect cannot be determined. No weighting factors are used in the framework and the questions and sampling methodology are adapted to each context.

Outputs: 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.

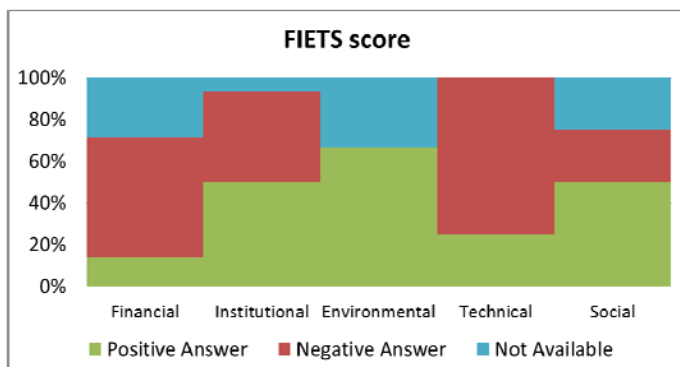
2.2.2 Impact and findings

With the very recent piloting of the SMF in two countries only, it was 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	Weaknesses
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 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.	
Reliability score ensures quality of results.	

FIGURE 2: SUSTAINABILITY MONITORING FRAMEWORK (SMF)



Source: IRC, 2013.

2.3 UNICEF MOZAMBIQUE- SUSTAINABILITY CHECK

Since 2007, UNICEF Mozambique has implemented five rounds of sustainability checks under its “One Million Initiative” (OMI) programme. This monitoring tool was designed to be used by independent auditors to assess the sustainability of the country’s WASH facilities and make recommendations to programme managers. The average cost per assessment is US\$ 65,000. Other UNICEF country programmes in Rwanda, Malawi and Zambia have developed similar checks greatly inspired by the Mozambique programme.

Application					
Cost					
Complexity					
Scalability					

2.3.1 Technical design

Sampling: random sampling is carried out on 10% of programme interventions.

Data collection methodologies: semi-structured focus groups with the district authorities, facility audits of water points, audits of open defecation free (ODF) villages and semi-structured household surveys in ODF villages.

Sustainability factors: five weighted factors: Institutional (10%), Social (25%), Service (12, 5%) Financial (6%), Technical (32, 5%) and Sanitation (65%). These have evolved over time to include Sanitation and Service as independent factors.

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

Scoring: indicator scores are averaged to obtain a factor score, followed by an overall score that is aggregated to the provincial and programmatic level using averages.

Outputs: scores are provided and recommendations conveyed through a management memo and audit statement to inform decision makers’ corrective action.

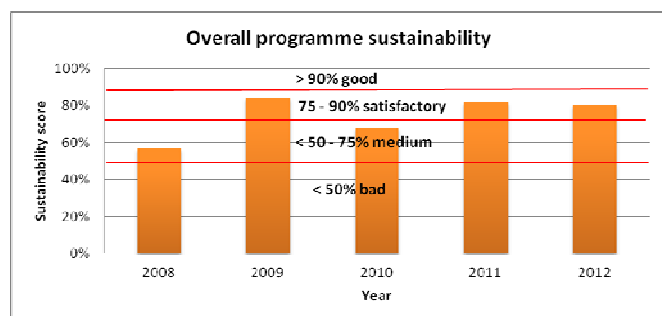
2.3.2 Impact and findings

UNICEF has taken follow-up actions, for example, the identification of the poor quality of latrines triggered more rigorous technical checks of materials and construction techniques.

There is potential for uptake by the Government of Mozambique (GoM) which has included a budget line of US\$ 150,000 in its annual sector budget to fund a check in 2013.

Strengths	Weaknesses
<p>First sustainability check tool developed (2008).</p> <p>Example of widest application (5 times).</p> <p>Quantitative and rigorous tool for a limited cost.</p> <p>Allows UNICEF to keep better track of its programmes and provides the GoM with a snapshot of sustainability, which cannot be found in the current system.</p> <p>Provides a useful combination of easily interpreted scoring with actionable recommendations and lays the grounds for “friendly competition” amongst provinces.</p> <p>Encouraging signs of uptake by GoM.</p>	<p>Tool may not be easily transferable to local government.</p> <p>Lack of sub-indicators focussing on district functions and national policies related to sustainable WASH.</p> <p>Remains a programme monitoring tool for UNICEF with limited impact beyond the OMI programme.</p> <p>Lack of ownership of the tool by national and local government.</p> <p>Cost may be a barrier for uptake by government.</p>

FIGURE 3: SUSTAINABILITY CHECK



Source: Godrey, van der Velden, Muianga and Xavier, 2013, p.10.

2.4 USAID-ROTARY INTERNATIONAL - 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 USAID-Rotary International partnership in three countries: Ghana, the Philippines, and the Dominican Republic. SIT was further refined in 2013. It is unique among the tools reviewed in this paper in that it includes a publically available “product” which guides users through the assessment steps (<http://www.washplus.org/rotary-usaid>). The cost of applying the SIT is approximately US\$ 50,000 per country.

Application				
Cost				
Complexity				
Scalability				

2.4.1 Technical design

Sampling: a statistically significant number of households per intervention type is determined and selected at random within each community assessed.

Data collection methodologies: site inspections, household and key informant interviews, focus group discussions at various levels (service provision, district, national levels), review of policy documents and technical standards and norms.

Sustainability factors: Institutional, Management, Financial, Technical and Environmental.

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

Scoring: carried out separately for each intervention type and responses are aggregated for each indicator, and subsequently averaged for each of the five areas.

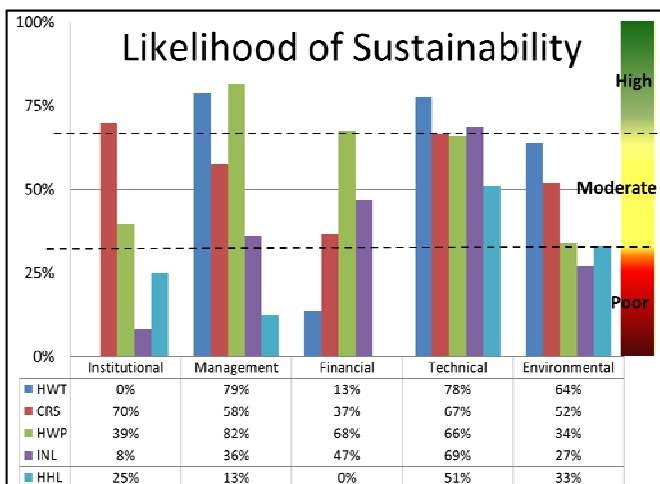
Outputs: presented as aggregate scores and graphically for the programme and district level for each of the different WASH interventions; can also be expressed by intervention type.

2.4.2 Impact and findings

Limited application makes it too early to discern the extent to which these results have impacted programme planning or operations.

Following the pilot assessment, USAID decided to invest additional funds to develop a guiding document on the SIT process. USAID has committed to using the SIT, which will become the standard framework for evaluating all their WASH programs.

FIGURE 4: SUSTAINABILITY INDEX TOOL (SIT)



Source: USAID and Rotary International, 2013.

Strengths	Weaknesses
Balanced assessment of sustainability considering key issues at all levels (community, district, and national).	Only at the pilot stage, too early to see significant impact on programmes.
Can be used as a pre-implementation checklist.	Predominantly a donor tool, lacking ownership by national and local governments.
Quantitative and rigorous assessment based on statistically significant sampling approaches.	Level of complexity is high—large number of indicators and cost may be a barrier.
Demands “contextualisation” of indicators and sub-questions, making tool better aligned to national monitoring indicators.	
Includes both urban and rural interventions.	
High potential for scalability and encouraging signs of uptake by USAID.	

2.5 WATER AND SANITATION FOR AFRICA - 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 also be relevant for local government officials. The model was developed in Ghana from a data set created with the help of the national water ministry and the Community Water and Sanitation Agency (CWSA). 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 which 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 costs of full scale execution are known.

Application	
Cost	??
Complexity	
Scalability	

2.5.1 Technical Design

Sampling: 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 collection methodologies: focus group meetings with water committees, physical inspections, and in some cases information from district level are incorporated. Data collection is done with laptops and the user interface is designed for real-time analysis. This feature is unique amongst the sustainability assessment tools analysed.

Sustainability factors: 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 its importance that resulted from the field test.

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.

2.5.2 Impact and findings

Since ToPPES is not in full application 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. WSA's ultimate goal is to deliver a web-based open source application.

FIGURE 5: TOOL FOR PLANNING, PREDICTING & EVALUATING SUSTAINABILITY (ToPPES)



Source: Addai, p. 4.

Strengths	Weaknesses
Comprehensive scope of sustainability factors.	Limited field testing.
Developed in close partnership with the 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.

3 ANALYSIS OF THE SUSTAINABILITY ASSESSMENT TOOLS

3.1 SCOPE

One aspect of scope is related to the context in which a given tool is designed to be applied. A major difference between tools is whether or not they are designed for a specific context, such as the UNICEF and WSA tools which are country-specific. The other three tools are “global” in the sense that they can be applied on any given context. However, not all tools are fully adaptable when it comes to modifying indicators. A second aspect of scope is temporal. The sustainability assessment tools included in the mapping can be further divided into two broad categories. The first category consists of “design tools” which are aimed at the pre-implementation or planning phase. The aim of these tools is to assess the likely sustainability of an intervention before it is implemented to subsequently adjust the design and allocation of resources. The second, and larger, group includes those tools which are applied “post-implementation” and used as an “audit” with the aim of checking sustainability, taking remedial actions and informing planning for future programmes. Table 1 differentiates between the design and audit tools. At least some of the tools may be used for both types of assessments; however the primary function of each tool is shown in green with the secondary function shown in yellow.

TABLE 1: SCOPE OF THE SUSTAINABILITY ASSESSMENT TOOLS CONSIDERED IN THIS MAPPING

	AGUASAN-SAT	DWA-SMF	UNICEF SC	USAID/RI SIT	WSA- TOPPES
Design tools	X			X	X
Audit tools	X	X	X	X	X

The scope and design of the sustainability assessment tools largely—and perhaps predictably— reflects the approaches adopted by the donor or implementing agency which has developed the tool. For the most part the tools are focussed on operational and infrastructural aspects, as well as the community management model which is accepted as the *de facto* approach in the sector (the USAID-Rotary tool is unique in this respect as it also includes private sector or utility management approaches for urban areas).

One consequence of this is that much less attention is devoted to broader policy and governance issues. In general the tools have failed to adequately address the role and capacity of local governments in the adoption or integration of these tools into existing assessment schemes. Again, with the exception of those in the USAID-Rotary tool, few indicators consider factors at the national level, and even fewer have taken into account factors at the district level. Considering all the sub-indicator questions across the five sustainability assessment tools reviewed, 63% of the indicators emphasise conditions within the community, while only 18% and 14% target the national and district level respectively (see TABLE 2). Given the importance of capacities at the district level and the need for supportive policies at national level to sustain WASH services at the community level, it is surprising that these are largely absent in the assessment frameworks.

TABLE 2: LEVEL OF INQUIRY OF COMBINED SUB-INDICATOR QUESTIONS

	SERVICE PROVISION	DISTRICT	NATIONAL	UNDETERMINED
Sub-Indicator Questions	63%	14%	18%	5%

3.2 COMPLEXITY

In monitoring in general there are trade-offs that must be made between the depth of analysis and the available resources (e.g., time, financial, personnel). Sustainability of WASH services—and the factors that may influence long-term performance—is complex and relies on a set of inter-dependent capacities, resources, skill sets and financing being in place, in addition to physical assets. Reducing this in an overly simple tool or framework runs the risk of missing key risk factors or drivers working at multiple levels.

On the other hand, overly complex sustainability assessment tools may dissuade other organisations and governments from adopting them or integrating them into existing monitoring programmes. Furthermore tools that are considered by implementing agencies or auditors to be too “heavy” (i.e., too many indicators) or too time consuming could result in high opportunity costs if these organisations do not take ownership of the process and rather just “go through the motions”. Finally, more complex tools require additional training and often if the sustainability assessments are carried out by external companies or consultants, there is inevitably a loss of institutional memory when a new agency is contracted. This issue can be addressed by building the capacity of long-term auditors, but such will remain as “external” processes.

Table 3 provides a breakdown of the framework and data collection methods for each of the sustainability assessment tools. The level of complexity is increased with the introduction of more indicators and sub-indicators, as well as the inclusion of various data collection methods, particularly those requiring highly specialised training to execute. In general, focus group discussions, unstructured key informant interviews and extensive household surveys are more resource intensive than technical audits or document reviews. The SAT, SIT, and ToPPES tools have the most sub-indicator questions, however considering the data collection methods the SC and SIT are most complex, while the SAT, SMF, and ToPPES have a “lighter” touch. The final component considered in the complexity is the adaptability of the tools

TABLE 3: CATEGORIES, INDICATORS, AND SUB-INDICATORS FOR THE SUSTAINABILITY ASSESSMENT TOOLS

	Framework											Data Collection Methods					
	Sustainability Categories										Indicators	Sub-Indicators	Focus Group	Key Informant	Household Survey	Technical Audit	Document Review
	Environment	Financial	Institutional	Social	Technical	Management	Service Delivery	Sanitation/Hygiene	Knowledge/Capacity								
AGUASAN-Sustainability Assessment Tool	X	X	X	X	X				X		22	110		X		X	X
DWA-Sustainability Monitoring Framework	X	X	X	X	X						45+	N/A	X		X		X
UNICEF-Sustainability Check		X	X	X	X		X	X			26	59	X	X	X	X	
USAID/RI-Sustainability Index Tool	X	X	X		X	X					14-23*	56-92*	X	X	X	X	X
WSA-ToPPES	X	X	X	X	X	X	X				23	92	X	X		X	

* N.B. The indicators and sub-indicators are dependent on the intervention type. The total number of indicators and sub-indicators cannot be determined without knowing the different intervention types in each programme.

In general, all the tools presented here consider internationally accepted sustainability factors. Although there are differences in the specific frameworks and data collection methods used, all tools would require adaptation when applied in a new context. Because the UNICEF Sustainability Check³ and WSA ToPPES tools presented here have been developed and applied in a single country and are therefore tailored to that specific context, the level of effort required to adapt these tools would be greater than the others. In particular the indicator and sub-indicator questions require defining for every subsequent application of the tool. In addition to adapting the framework, it would be necessary to

³ The authors recognise that UNICEF has developed and applied similar tools in other countries (these include Malawi, Rwanda and Zambia). The Sustainability Check from Mozambique was chosen as it represents the most developed version of the tool, with the longest practical application.

adapt the process of applying the tool for each unique context where it will be applied. Lastly, when determining the final format for presenting the results, it is necessary to ensure their appropriateness for the target audience (e.g., national, local government, implementing agency or donor).

3.3 COSTS

For the UNICEF and USAID-Rotary tools the cost of applying the tools was between 1%-3% of programme funding (US\$ 50,000-60,000 per iteration). AGUASAN cited a cost range of between US\$ 2,000 and US\$ 20,000, depending on the type of assessment (full or “lite” versions). Data were not available for assessing the costs of applying the other tools. Adapting or “contextualising” each tool for use in a different region or country will increase the costs. The first assessment could be 25-35% more expensive than subsequent assessments.

Despite this, the overall costs are relatively low considering the benchmark commonly used by implementing organisations (approximately 5%) of programme investment on monitoring and evaluation. However it is important to consider how these tools will be integrated into or replace the existing internal programme monitoring frameworks. These tools have the potential to have a much longer-term impact than standard monitoring tools which are often seen as a tick box activity to carry out for the donor. In at least three cases, these sustainability assessments did trigger immediate remedial actions to sustain the services provided.

3.4 IMPACT

In essence, impact can only be partially assessed for three of the five tools included in this mapping exercise (AGUASAN, DWA, and UNICEF). In all three cases, the organisations have reported some impact on the programmes (i.e., resulting in changes to programme design and/ or remedial actions) and on the stakeholders themselves. 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.

3.5 LINKS AND INTEGRATION WITH NATIONAL MONITORING SYSTEMS

The tools have been developed by donor or implementing agencies with the primary objective of monitoring the sustainability (or likely sustainability) of their own interventions and, where required, to take action either pre-emptively or correctively. This reflects the perception that primary accountability for monitoring rests with the donors and/ or their implementing partners.

In many instances the tools have included indicators that are compatible with those used in-country and often the assessment results are shared with national and local governments, and corrective actions have been taken in collaboration with local stakeholders. However, the development and application of these tools mirrors the limited alignment of these programmes to country processes and systems. While all organisations have made some effort to include national stakeholders—with the UNICEF tool from Mozambique and the experiences of SWA with their ToPPES being the most advanced in terms of integrating with national systems—the fact remains that these are essentially development agency or “project” tools.

In most cases, the application of the sustainability assessments described in this paper has occurred in parallel to existing, national monitoring activities. Although the tools are useful in their own right and their emergence in recent years is seen as a positive step, the general lack of integration with national frameworks means that their utility for and “ownership” by governments is still limited, particularly at local level.

In addition, although the costs of applying these tools is minimal relative to typical overall programme budgets, in developing countries limited public sector resources are available for monitoring. Low priority given to monitoring activities might limit the possibility for widespread adoption of these kinds of tools by governments themselves; again this may be especially the case for decentralised local governments.

Replicability – examples of uptake

The above analysis aside, some promising signs of uptake of the tools have already been recorded in several organisations and countries. For example, the Government of Mozambique has already included a US\$ 150,000 placeholder in its annual budget for 2013 to carry out a similar sustainability assessment at the sector level, based on the UNICEF experiences. All 50 of the Dutch WASH Alliance partners will soon use the SMF in their programmes, and USAID is looking at a second round of application of the SIT in two additional countries (Kenya and Tanzania) and is planning on utilizing the SIT as the standard tool for monitoring all its WASH programmes worldwide.

4 LESSONS AND THE WAY FORWARD

The concurrent emergence of a number of broadly similar sustainability assessment tools which share many common characteristics and approaches is itself an indicator of change in the WASH sector. It marks an important transition from an epoch during which donors and implementers have been overwhelmingly concerned about building physical systems, to one in which they are rightly inquiring about the provision of permanent services, and by default the legacy of their investments, as well as those of national stakeholders.

By putting sustainability on the agenda in various countries and presenting the methodologies and findings in various international forums—all of these experiences have in some way contributed to making a broader impact on the sector as a whole and triggering interest from many sector players. Increased collaboration amongst organisations that have developed and applied these tools, coupled with a growing demand for bespoke sustainability assessments from organisations which still use traditional monitoring methods, are all encouraging signs of uptake at the international level.

The further development, application and scaling up of these tools is not certain and there may be the need to allow “market forces” to determine which ones will endure and which will fall by the wayside. However, given the commonalities most of these tools share (e.g., similar factors, indicators, methodologies, and approaches to sampling), there may be a demand to provide ‘off-the-shelf’ components of such tools which can be accessed globally and adapted to local contexts and sector requirements. Alternatively elements of these tools may be taken up and championed by the global WASH architecture, for example through the platform of Sanitation and Water for All and its associated UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water. Making aspects of these tools freely available would facilitate and accelerate the rate of uptake by other donor and implementing organisations, and would greatly reduce the relatively high initial set up costs.

The converse requirement: what to do with the increasing amount of data around sustainability generated by these tools—also presents both challenges and opportunities. Only by accumulating and analysing data can we really learn about trends and factors over time. These data sets could allow for more nuanced analyses, perhaps involving agent based modelling to test assumptions about the importance of certain factors or conditions. Aggregating data from such checks at national or even regional levels will be challenging. And as with all new instruments, ultimately these efforts must be judged by whether or not they have addressed the fundamental purpose of improving service delivery on the ground for families and communities to access more reliable, higher levels of water, sanitation and hygiene services.

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ANNEX 1: TOOLS SUMMARY

	AGUASAN SAT	DWA SMF	UNICEF Mozambique SC	USAID-Rotary SIT	WSA ToPPES
BACKGROUND					
Tool Designer	Implementer	Implementer with involvement of local government	Implementer	Donor	NGO with involvement of local government
Stage of Tool Development (years)	Three years (full application-once; limited application-three times)	One year (full application-twice)	Five years (full application-five times in Mozambique)	Two years (full application-three times)	One year (pilot testing underway)
Countries	Kosovo, Haiti, Nepal, Mali	Bangladesh, Benin, Ethiopia, Ghana, Kenya, Mali, Nepal, Uganda	Mozambique (applied in 3 other countries)	Philippines, Ghana, Dominican Republic	Ghana
Stage in the Service Delivery Cycle (pre/ during/ post - programme)	During	During	During	Pre and During (limited) and Post	Pre, During, Post
PROCESS					
Frequency of Application	Unknown	Unknown	Annual during programme	3,5, and 10 years following implementation	Annual
Statistical Design	Anecdotal	Anecdotal	Statistically Sig # households	Statistically Sig # households or communities	Anecdotal
Data	Quantitative	Both	Quantitative	Both	Quantitative
Scoring	Post collection	Post collection	Field	Field/ post collection	Field
FRAMEWORK					
Data Source: Service Provider	√√√	√√√	√√√	√√	√√√
Data Source: Local Government	√	√√√	√	√√	√
Data Source: National Policies and Legislation	√√	X	X	√√√	X
Linkage with Country Monitoring Systems	X	X	√	X	X
Cost	\$?	\$\$\$	\$\$?
Ease of Use	√√√	√√	√√	√	√√

N.B. X-Does not Consider, N/A-Not Applicable; √- Low √√-Medium √√√-High; \$-Less Expensive, \$\$-More Expensive \$\$\$-Most Expensive

ANNEX 2: LONG-LIST OF TOOLS CONSIDERED

TECHNOLOGY	SERVICE DELIVERY	ORGANISATIONAL	PROGRAMMATIC	OTHER
Skat-Technology Assessment Framework	IRC-Principles Framework	Improve International-Water for Life	UNICEF-Sustainability Check	Aguaconsult/ IRC-Sector Assessment Tool
Skat-Guidance for Technology Introduction	WaterAid-Sustainability Framework	Sustainable WASH.org-The Sustainability Self-Assessment Tool	DWA-Sustainability Monitoring Framework	IRC-WASH Cost calculator
	Akvo- FLOW Water For People: Service Delivery Indicators	Improve International-Water for Life	USAID/ RI Sustainability Index Tool	IRC-District Expenditure Planning Tool
	IRC-Service Delivery Indicators		AGUASAN-Sustainability Assessment Tool	
			WSA-Tool for Planning, Predicting and Evaluating Sustainability (ToPPES)	

N.B. Further information on specific tools is available on the web (alphabetically ordered):

Aguaconsult/ IRC Triple-S Sector Assessment Tool: <http://www.waterservicesthatlast.org/news/new_wash_sustainability_assessment_tool>

Akvo-FLOW Water For People: <<http://www.waterforpeople.org/flow-mapping/>>

IRC: monitoring and service delivery indicators:
http://www.waterservicesthatlast.org/media/publications/monitoring_and_service_delivery_indicators

IRC Principles Framework: <http://www.waterservicesthatlast.org/resources/concepts_tools/principles_for_sustainable_services>

SustainableWASH.org, The Sustainability Self-Assessment Tool: <<http://www.sustainablewash.org/content/self-assessment-tool-sustainability>>

WASHTech Technology Assessment Framework and Guidance for Technology Introduction (hosted by SKAT): <<http://washtechnologies.net/en/>>

WaterAid Sustainability Framework: <http://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=0b45ec09-e7d2-43e1-9423-c00f5ff4e733&sc_lang=en>

ANNEX 3: ANALYSIS OF SUSTAINABILITY ASSESSMENT TOOLS

METHODS							
TOOL NAME	SCOPE (LEVELS OF APPLICATION OF THE TOOL)	STATISTICAL DESIGN	SAMPLE FRAME	DATA SOURCES	DATA COLLECTION TOOLS/ TECHNIQUES	DATA TYPE	RESPONSE SCORING
	National, regional, district, community, household, individual	Statistically significant (list levels) or anecdotal	Programme, project, region, country, intervention type, sector, community, household, beneficiary	primary, secondary, both	Focus groups meetings, structured household surveys, key informant interviews, in-depth interviews, technical audits, document review	Qualitative, categorical, quantitative	Field scoring, post collection scoring
1. Sustainability Assessment Tool (SAT)	community, national	anecdotal	project, programme, sector	both	policy review, semi-structured interviews, field observations	qualitative	post collection scoring
2. Sustainability Monitoring Framework (aka-FIETS, DWA SI)	community, district	?	programme	both	survey, focus group discussion, documentation reviewing etc	qualitative, categorical, quantitative	?
3. Sustainability Check (SC)	household, community	50% of districts; 10% of communities (water points and ODF communities); statistically significant number of households (based on total # households)	communities with 1) completed boreholes OR 2) ODF status)	primary	(1) semi-structured focus group with the district authorities (institutional indicators), (2) facility audit of water points (social, technical, and financial indicators) (3) audit of ODF villages and (4) semi-structured household surveys in ODF villages.	quantitative, categorical	field scoring
4. Sustainability Index Tool (SIT)	national, district, community, household	statistically significant number of households per intervention type	communities with specific intervention type	both	household and site inspections, observation, interviews and focus group discussions, as well as review of policy documents and technical standards and norms	quantitative, categorical, qualitative	field scoring, post collection scoring (in some cases)
5. Tool for Planning, Predicting and Evaluating Sustainability (ToPPES)	community & district (for some aspects)	survey/ case study approach	list of communities	primary	Focus group meetings with water committee, system inspection. (sometimes additional information at the district level)	quantitative	instant automated feedback (Report) for decision-making

ASSESSMENT FRAMEWORK

TOOL NAME	INDICATOR CATEGORIES (DIMENSIONS OF SUSTAINABILITY)	INDICATORS	CATEGORIES/ CRITERIA	INDICATORS	SUB-INDICATORS	QUESTIONS	WEIGHTING	AGGREGATION PROCESS	AGGREGATION LEVELS	FORMAT RESULTS	RECOMMENDATIONS
	LIST	LIST					LIST AND INCLUDE JUSTIFICATIONS		LIST	GRAPHICAL, DESCRIPTIVE STATISTICS, INFERENCE STATISTICS	
1. Sustainability Assessment Tool (SAT)	Social, Economic, Environmental, Institutional, Technological, Knowledge	22 Indicators: 1.1 social equity, 1.2 respect of tradition, 1.3 participation, 1.4 empowerment; 2.1 financial viability, 2.2 cost recovery, 2.3 mobilising resources 2.4 productive use of water, 3.1 general principles, 3.2 closing the loop, 3.3 environmental policy; 4.1 enabling environmental policy, 4.2 good governance, 4.3 strong institutions, 4.4 private sector, 4.5 coordination, collaboration; 5.1 sustainable technologies, 5.2 choice of technologies, 5.3 local technologies; 6.1 knowledge management, 6.2 evaluation, 6.3 advocacy	6	22	110	110+	none suggested	indicator scores are averaged for a category score expressed as a per cent.	project or programme	radar diagram	programme level, sector level
2. Sustainability Monitoring Framework (aka-FIETS, DWA SI)	Financial, Institutional, Environmental, Technical, Social	Water (45), sanitation (?), hygiene (?)	5	45-?	?	?	none suggested	% positive indicator responses for each category and administrative level.	category, administrative level	graphical bar chart (% positive, % negative, % non response)	?

3. Sustainability Check (SC)	Institutional, Social, Technical, Financial, Sanitation and service (since 2011)		5	26	59	?	Institutional (10), Social (40), Technical (30), Financial (10), Sanitation (10)	- Community-level data is aggregated and averaged to the district and provincial levels. - The district sustainability scores are the arithmetic means of the community scores - The provincial sustainability scores are the weighted means of the district sustainability scores based on the number of water points per district.	community, district, province	graphical (bar chart) of scores at province level	programme level
4. Sustainability Index Tool (SIT)	Institutional, Management, Financial, Technical, Environmental	various by intervention (e.g. - Community Handpump 23 indicators)	5	14-23	56-92	56-92+	none suggested	Data is analysed separately for each intervention type. Scores for each sub-indicator are aggregated for an indicator score. Indicator scores are averaged for each of the five factors for each community. Community-level data is aggregated to the district and provincial levels. Weighting factors can be applied to each factor to calculate an overall sustainability score.	programme and district (by intervention)	graphical (bar chart, radar diagram, line chart)	programme and district level
5. Tool for Planning, Predicting and Evaluating Sustainability (ToPPES)	socio-economic context, service delivery, water resources/ quality/ and environmental needs, technical, financial, O&M, Institutional	23 Indicators: see list	7	23	92	92	weightings attached to indicators according to perceptions of their importance (pilot test)	indicator scores are averaged for a category score expressed as a percent.	sustainable, moderately sustainable, not sustainable	Tabular	?

EVALUATION

TOOL NAME	RELEVANCE	EFFECTIVENESS	EFFICIENCY	IMPACT OF THE TOOL TO DATE	SUSTAINABILITY	EASE OF USE	UNIQUE STRENGTHS (COMPARED TO OTHER TOOLS)	UNIQUE WEAKNESSES (COMPARED TO OTHER TOOLS)
1. Sustainability Assessment Tool (SAT)	The tool has been adapted in discussion with local water experts based on the specific objectives of the assessment and on the local context (selection/adaptation of relevant indicators)		In the case of the detailed assessment in Kosovo, the assessment was conducted within a period of a year but not on a full-time basis. Estimated level of effort was in the range of 2 person-months. The tool application as 'rough assessment' was conducted within the frame of short-term planning or evaluation missions (2-3 days for the sustainability assessment). The cost estimated at \$2,000 to \$20,000 was not considered higher than conventional project evaluation/	New law on publically owned enterprise has been amended, adaption of a tariff, increased efforts to establish protection zones, improved water quality monitoring, increased mobilisation of finances.	In the case of the detailed assessment in Kosovo, it was conducted in the frame of a backstopping mandate to an SDC funded project. Therefore the costs were covered by the donor (SDC). In the other cases, the costs were covered by our organisation (implementer).		It provides an overall picture of the sustainability covering various dimensions (institutional, social, economic, environmental, technical, knowledge) avoiding thus to focus too much on or neglect specific dimensions. It helps to understand both project-related issues and sector level issues enabling thus to identify, among others, how a project could contribute to sector/policy development for improving the conditions for sustainability of water and sanitation schemes.	The tool contains a high number of indicators. It is appropriate for a detailed assessment. A smaller selection of key indicators could be useful for a rough / more frequent assessment. The main weakness is that the tool is not embedded in a framework (e.g. monitoring framework of the regulatory body, sector review framework, etc.) that would enhance the chances of sustainability of the tool itself (e.g. in the case of Kosovo, there is no 'framework' in place that would ensure that the assessment is repeated after 3-4 years to assess changes).
2. Sustainability Monitoring Framework (aka-FIETS, DWA SI)		Gives a comprehensive picture of likelihood of sustainability/non-sustainability and triggers action by organisations	Depends on context (numbers of questions, duration of survey)	The introduction of a sustainability focus forced partners to think the issue through. However, it is too early to see impacts on the programs	As long as DWA finds it useful to continue funding	Not user friendly (complex and Excel based)	Supports organisations and individuals actively working around the issue of sustainability and measures progress	Excel database could be transferred to a more user friendly programme

3. Sustainability Check (SC)	<p>Snapshot of the sustainability factors at the programme level to allow project managers to take action in the course of a programme.</p>	<p>Effectively carried out by competent auditors leading to useful recommendations and technical follow-up by UNICEF</p>	<p>Low cost for a useful result and meaningful impact on the programme</p>	<p>The tool has allowed actions to be taken to readjust issues identified during the SC.</p>	<p>Perceived as a UNICEF tool by the sector. But signs of potential uptake by government (inclusion of a budget line for the sector monitoring) in 2013.</p>	<p>Complex methodology for scoring/weighting and heavy process of collecting and analysing data.</p>	<p>Fairly comprehensive assessment of sustainability for a limited cost, allowing to talk immediate remedial actions.</p>	<p>Does not consider broader institutional aspects (national level is not included and district level is superficially covered- only existence of a database), environmental aspects and the service factor only focuses on functionality but not on service levels.</p>
4. Sustainability Index Tool (SIT)	<p>Provides a rating of the likelihood of the sustainability of the services provided by a given intervention in a given context, considering the factors at the national, district, and community level.</p>	<p>Effective when</p>	<p>Costs are higher for the first iteration of the tool, due to the need to contextualize. Overall the costs are viewed as reasonable</p>	<p>unknown</p>	<p>Due to the high cost relative to other assessment tools it is unclear if there will be take up by local governments.</p>	<p>Complex methodology for scoring/weighting and heavy process of collecting and analysing data.</p>	<p>Considering the scope of the assessment this tool is very comprehensive in that it captures issues at national, district and local levels.</p>	<p>Limited consideration of performance of specific technologies. Because it is balanced in looking at sustainability at different levels, it may overlook key issues within the community.</p>
5. Tool for Planning, Predicting and Evaluating Sustainability (ToPPES)	<p>ToPPES has been tested in Ghana with the CWSA and has proven to be relevant for planning and evaluating sustainability of rural and possibly small towns water projects/points to ensure sustainability of the water services in the community (s)</p>	<p>Provides a simple and user friendly holistic approach to ensuring that we consciously plan and appraise the sustainability of water project /facilities . Gone through various test but not exhaustive, yet to be fully applied</p>	<p>If all necessary responses are provided , it instantly generates and displays a report (outcome) for discussion and decision-making</p>	<p>Not yet applied</p>	<p>Embedding process started in Ghana with the line Ministry providing leadership and responsible Agency for rural and Small town water ss helping in the modelling of tool and carrying out the field testing . The plan is to take the experience to other WSA countries and later internationally</p>	<p>Usable on laptops and on-site. With all respondents available, maximum one hour for questions, answers , entry and response.</p>	<p>Instant report for decision-making; capable of both predicting the sustainability of a planned project and evaluating indicators of sustainability on existing projects</p>	<p>Just the first version, not fully applied yet</p>