The Benefits of Shared Measurement Systems: Monitoring, Evaluation & Learning in the MWA Ethiopia Program

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Abstract

The MWA has been implementing water, sanitation, and hygiene programmes in Ethiopia since 2004 and will have invested nearly $20 million in the sector by mid-2014. By 2015, MWA and the 11 MWA members and numerous local partners involved in the MWA-EP will have reached more than one million rural Ethiopians with access to integrated water, sanitation and hygiene (WASH) services. To achieve this kind of collective impact, all participants must have a shared vision for change and a shared measurement system. In 2010, all MWA-EP partners agreed to common definitions, policies and strategies. This paper discusses the process required to reach consensus on a shared measurement system among multiple, diverse partners, the data collection tools and collection methodology, challenges and lessons learned in implementation.

Keywords

Collective impact, evaluation, monitoring, water, sanitation, hygiene.

Introduction and purpose

In 2012, the MWA worked with Improve International to complete an independent evaluation of the partnership using the framework of Collective Impact (Improve International, 2012). Among the key findings that emerged were numerous examples of not only knowledge sharing but also knowledge transfer of best practices and strategies that partners have applied within their field programmes since 2004. The report also highlighted that learning would be enhanced and focused by an effort that was already underway: a measurement system shared across the partners.

Because there are several partnerships for international development, and WASH more specifically, the MWA wants to share our experiences – good and bad – with the process required to reach consensus on a shared measurement system among multiple, diverse partners, the data collection tools and collection methodology, implementation, data collection, and analysis.

Context

Shared Visions and Measurements

Partners urged MWA to create minimum standards and common indicators and to convince donors to accept reports using them. In 2010, all MWA Ethiopia Program

partners agreed to common definitions, policies and strategies. One of the key policies promulgated in this document is the adoption of a mandatory, common monitoring and evaluation system used by all partners.

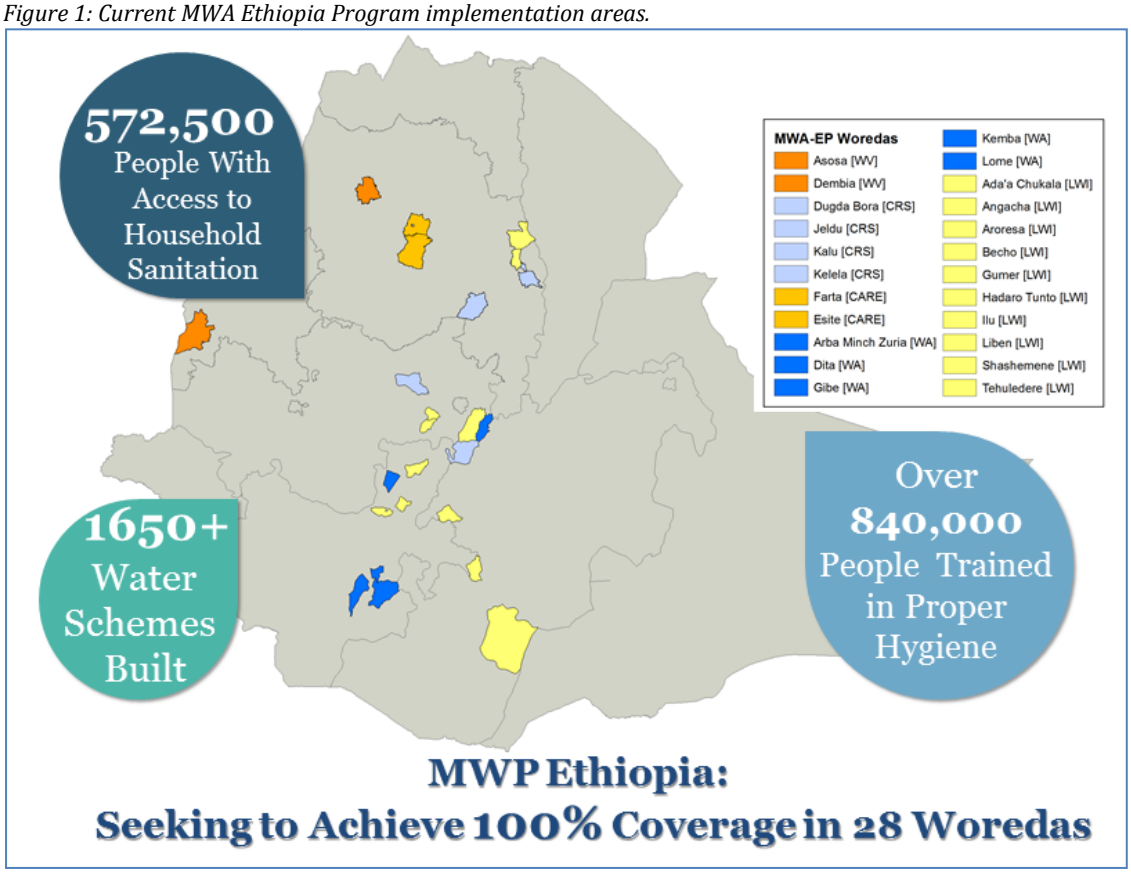
Throughout 2011, with support from the Center for Global Safe Water at Emory University (CGSW) and MWA, MWA-EP partners designed a common monitoring, evaluation and learning (MEL) framework to monitor and evaluate output, outcome, and impact indicators. The MEL framework was finalised in October 2011 and the first round of data collection after the baseline survey was completed by all partners in November 2012.

MWA Ethiopia Program MEL Framework

The MWA Ethiopia Program

The MWA began implementing WASH programmes in five regions of Ethiopia in 2004. The programme is coordinated by an in-country secretariat, currently comprised of three staff. The MWA-EP has been funded by the Conrad N. Hilton Foundation, the Coca-Cola Africa Foundation, community contributions, and other matching funds. In July 2011, the MWA-EP began a new, three-year phase, funded by the Conrad N. Hilton Foundation (the water services components) and several other donors for the hygiene and sanitation components. Figure 1 shows implementation areas for this phase of the programme.

Figure 1: Current MWA Ethiopia Program implementation areas.



Source: MWA, 2012.

Programme Goals

The overall goal of the MWA-EP is to improve sustainable access to safe water, hygiene and sanitation for rural Ethiopians through a partnership that promotes effective strategies and direct action. During 2010, all MWA-EP partners worked together to draft a set of common implementation strategies and policies to provide minimum standards and definitions for all the organisations involved in the partnership. This document, adopted by consensus in late 2010, set a goal to reach one million rural Ethiopians from 2011-2016. The 'MWA-EP Policies and Strategies' document also established three common objectives to achieve its goal and provided a vision for how these objectives should be collectively achieved:

1. Increase WASH coverage, including a commitment to remain in intervention areas until 100% coverage is reached and ensuring that WASH coverage levels for rural populations living in 'difficult and challenging'[1] areas is at least equal to that achieved for the overall population.
2. Promote community-based integrated water resource management (IWRM).
3. Contribute to the greater effectiveness of WASH programming in Ethiopia by operating cohesively as an alliance.

Program Activities to Date

Since 2004, the MWA Ethiopia Program has made over $19 million in total investments in the WASH sector and reached almost 700,000 rural Ethiopians with access to safe water, basic sanitation, and hygiene promotion activities. During the first 5-plus years of programming, partners increased access to safe water sources for over 500,000 rural Ethiopians and increased access to basic sanitation and improved hygiene to over 600,000. Direct implementation of WASH services took place in communities, households, schools and health centres.

Baseline Data

Baseline data was collected at the household level and at community institutions such as health clinics and schools. A randomised multi-stage (cluster) sampling was utilised with proportional sampling from areas with challenging water access conditions and those that are not difficult to access. In the first stage, a random selection of intervention kebeles, or clusters, were chosen as the primary sampling units. Within each selected kebele, a simple random sample of households was visited. Baseline data was collected across almost 2,000 households in 96 kebeles in 18 woredas in 4 regional states: Oromia, Amhara, SNNPR, and Benishangul Gumuz. Both NGO, local government staff and community members were involved in the planning and execution of the baseline survey.

[1]Each partner identified which of its intervention kebeles met at least one of the following criteria for a "difficult and challenging' area: Far from the woreda centre (approximately 1 full day of travel to access kebele), challenging topography & hydrogeology: gravity spring and borehole are not feasible, scattered settlement, population includes pastoralists. Vulnerable groups are defined as households affected by people living with AIDS, child-headed households, orphans and vulnerable children, and/or physical or mental disabilities.

Results showed the following baseline characteristics in the intervention areas:

- 39% of the households in the intervention areas use improved water.
- 3% households use an *improved* latrine.
- 66% have a latrine of any type.
- 37% with any type of latrine report that all household members under 5 use it;
- 2% of households have a handwashing station with soap near latrine.

Using a common definition for 'vulnerable' households, the baseline survey found that among 'vulnerable' households, significantly fewer have a latrine, report washing hands at key times, or treat drinking water than non-vulnerable households. Using a common definition for households located in 'difficult and challenging' areas, significantly fewer of these households were found to use improved water sources than other households and used less than 15 litres per capita per day.

A Unique Model for Inter-organisational Learning

In MWA programmes, the Programme Management Group (PMG) meeting is the main venue for programme governance, progress reporting, and information exchange among partners. PMG meetings are hosted, on a revolving basis, by one of the partners two or three times a year. These meetings encourage trust by bringing people face-to-face in a retreat-like setting for two or three days. This trust and proximity enables peer-to-peer discussion of programme challenges and knowledge transfer.

In preparation for these meetings, the MWA US Secretariat and the Ethiopia Secretariat formulate an agenda which includes an opportunity for peer review, updates from sector stakeholders including government and other non-governmental organisations (NGOs), training on applied research themes and other activities designed to share best practices and appropriate technologies from abroad and in-country.

An important part of each meeting is a peer review based on a field visit to one or more of the host partner's project sites. This peer review (which often also involves a donor or two, a representative from the government, and/or an academic) serves as a unique way of evaluating programmes in real time. However, by 2010, it was clear that a shared measurement system was still needed.

Challenges without a Shared Measurement System

Collective impact requires all participants to have a shared vision for change, one that includes a common understanding of the problem and a joint approach to solving it through agreed upon actions (Kania & Kramer, 2011). With multiple partners and a variety of approaches, reaching a common vision was vital. It follows that a shared measurement system needed to be developed.

The willingness and ability to learn from each other exists: the Collective Impact report confirmed that a positive environment for learning has been created among MWA Ethiopia Program implementing partners over the past seven years (Improve International, 2012). Learning and research has been promoted for many years at the

Project Management Group (PMG) meetings, which are held two to three times each year. Ethiopian partners say they have benefitted from learning from other organisations and the research and sector overviews presented at PMG meetings (Improve International, 2012). However, collecting data and measuring results consistently on a short list of indicators at the community level and across all participating organisations not only ensures that all efforts remain aligned, it also enables the participants to hold each other accountable and better learn from each other's successes and failures (Kania & Kramer, 2011).

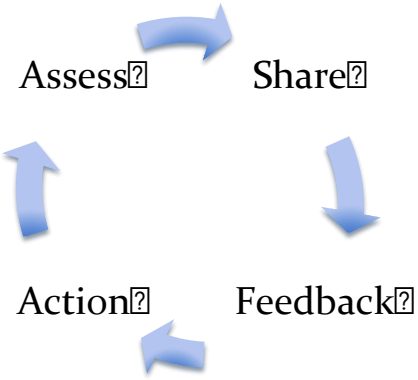
From 2004-2011, partners had their own monitoring programmes, making joint data collection and reporting challenging. Baseline data could not be compared. Some partners were unable to collect the required data because they lacked personnel or budget, or were waiting for the endorsement of the minimum standard by the sector or the government. One partner commented, "There were various challenges because we didn't all have the same monitoring indicators . . . so that at the minimum, when disparate organisations report, they're reporting on the same indicators. So you can collate the impact in an easier fashion when you all are measuring the same things" (US#10, 2012).

Methodology:

Data for decision-making: MEL as an iterative learning process

Development programmes are more likely to succeed in their intended goals when MEL is designed as a tool for decision-making. Too often, data that are collected will feed directly into a donor reporting form and will otherwise sit on a shelf without being discussed critically within an organisation. Particularly when MEL activities capture outcome indicators, these data can be an invaluable asset to implementing partners to inform best practices or necessary changes in an approach.

Figure 2. Data for decision-making cycle.



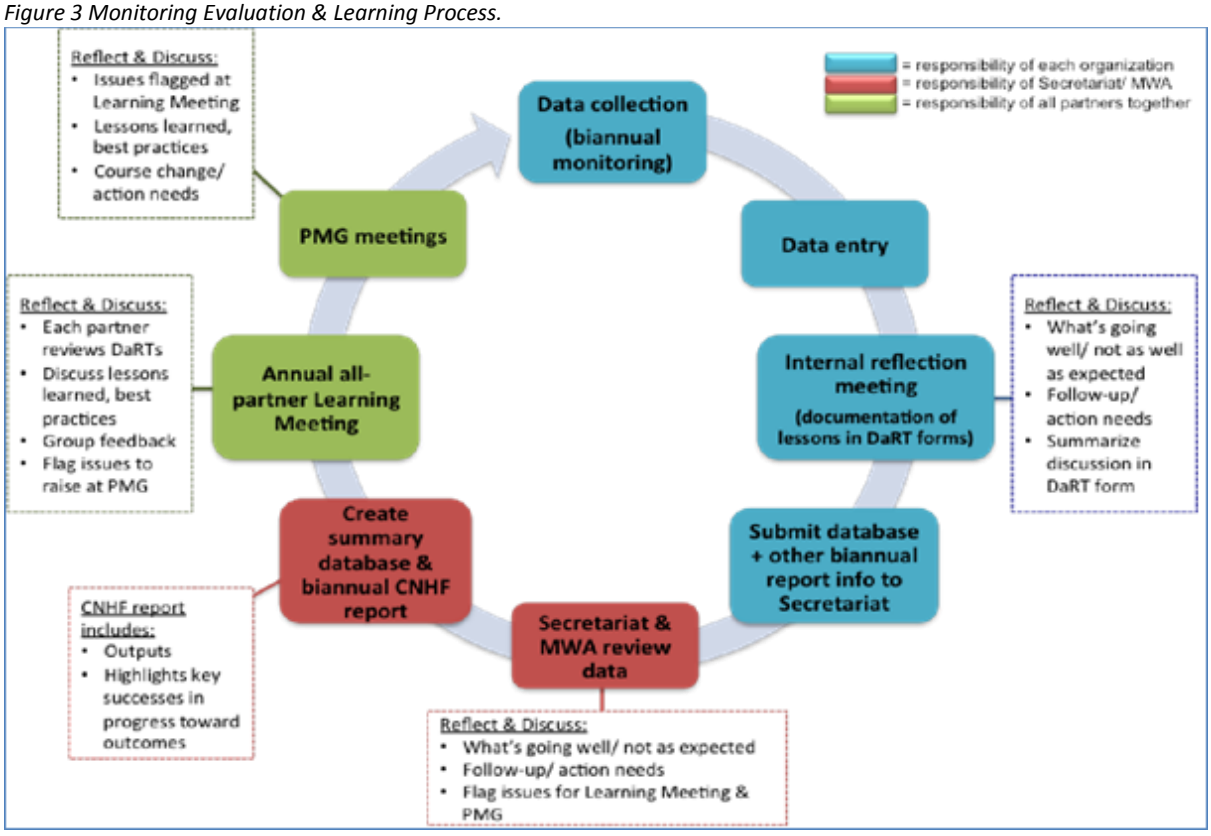
The MWP-E MEL framework was conceived as an iterative cycle of learning, feedback, and action (Figure 2). Data collection activities such as monitoring visits or the baseline evaluation allow each partner to *assess* what is happening on the ground. This assessment includes not only data collection but review and analysis of the data. These findings are then *shared* within the organisation and across organisations in the MWP-E partnership for *feedback* and *reflection.* These discussions result in an *action* plan for programmatic changes or advocacy needs.

Figure 3 below shows the overall MEL process. Outcomes were developed for each programme objective. Targets for some of the outcomes are being set based on the baseline data results.

As Figure 3 shows, each MWA Ethiopia Program partner is responsible for data collection in their intervention kebeles (communities) every six months (in May and November). A more extensive household survey will be conducted twice during the programmr cycle. At present, most partners collect data using paper surveys and data are then entered into an Excel spreadsheet designed by CGSW. There are individual data collection tools for households, community water schemes, schools, health clinics, and community led total sanitation and hygiene open defecation free (ODF) status monitoring.

Data collected is forwarded to the MWA-EP Secretariat office for consolidation and further analysis and an MEL summary report is produced. The monitoring and evaluation (M&E) staff of all partners meet bi-annually to reflect and discuss the summary report and to identify areas of best practice or concern. Action items related to the MEL data are taken up at PMG meetings.

Figure 3 Monitoring Evaluation & Learning Process.



Source: CGSW July 2012.

Costs to Monitor

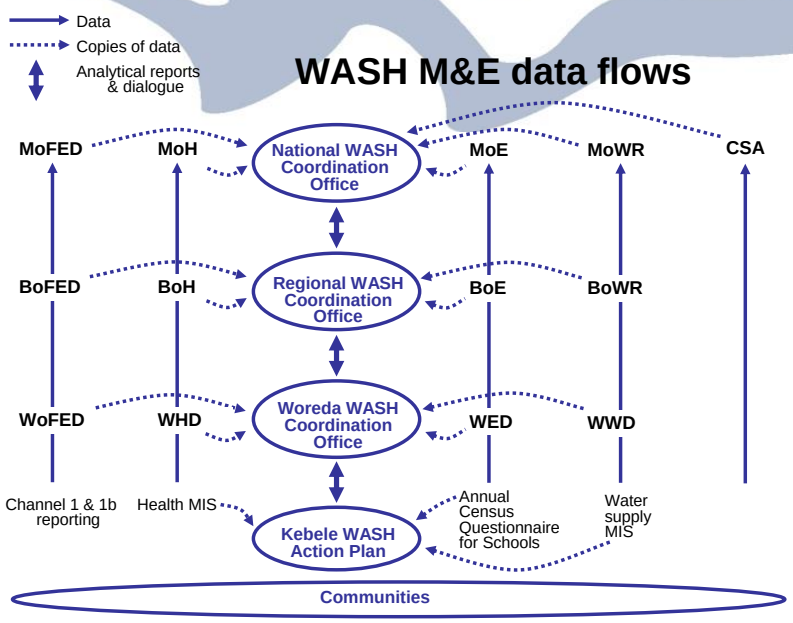
There are numerous costs related to the MEL framework. A significant upfront investment of $150,000 USD was made by MWA in the US to develop the methodology and tools that make up the MEL framework including the baseline survey, on-going monitoring, the final evaluation survey, and training workshops for all partners.

Each MWA-EP partner also invests significant cash and in-kind resources, to the implementation of the MEL framework including the costs of enumerators, vehicles, staff time, GPS equipment, and the like. For example, for the 2011 baseline survey, World Vision collected monitoring data alongside their routine daily work with their own personnel. However, most of the other partners hired enumerators. For instance, CARE Ethiopia deployed about 50 enumerators at a cost of ETH Birr 150.00 per day per person to survey 101 schemes. On top of this, CARE was accompanied by two supervisors per woreda (one from their own and the other from woreda government offices), which also required per diem and transportation costs. WaterAid Ethiopia's partners used enumerators and deployed programme staff for supervision, which required extra manpower and logistics including vehicles. A conservative estimate of the cost per partner to complete each round of data collection is about $1,000 to $1,500 USD, which equates to an investment of approximately $6,000 to $9,000 USD (one baseline, four on-going, one final data collection exercise per partner) for a total of $30,000 to $45,000 USD for MEL for the programme overall.

How the Indicators Align with Ethiopia's

Ethiopia is unusual in that, while it has some of the lowest coverage for water and sanitation in the developing world, its government shows strong interest and commitment in the provision of safe water for its citizens. The right to water and sanitation was included in the 1995 Ethiopia constitution (Federal Democratic Republic of Ethiopia, 2012). The Government of Ethiopia WASH Implementation Framework complements the revised MOU signed in 2012 by the Ministries of Water Resources, Health, Education, and Finance and Economic Development.

In 2010, the GoE issued its WASH M&E Framework and Manual, which outlines the process for designing, testing and rolling out a national WASH M&E system with 15 key WASH performance indicators for urban and rural systems. The data flow process is depicted by the GoE diagram below:



The MWA-EP MEL framework deliberately includes 7 of the 15 GoE indicators relevant to rural WASH. All of the data collected by MWA-EP partners on these indicators are shared with government agencies listed above.

Findings and discussions

Challenges while Developing and Implementing the Shared Measurement System

While the MEL system is relatively new, having been developed in 2011 and first deployed in the field in 2012, there are a number of challenges that were encountered. First, there was considerable debate among partners as to the ethicality of conducting the baseline survey in non-intervention areas so that there would be a control group with which to compare final evaluation data. Many partners felt that it was unfair to burden households that would not benefit from the programme with the questionnaire and also expressed concern that doing the survey in non-intervention areas could create false expectations that the NGO would be delivering services to these communities in the future. In the end, it was decided to collect baseline data in intervention kebeles only.

All partners were also concerned about the cost and time required to implement such an extensive MEL framework. To alleviate some of these concerns and given the reality of the rainy seasons in Ethiopia, it was decided to monitor bi-annually instead of quarterly.

During the pilot testing of the survey in the field prior to full-scale data collection, it was determined that the survey tools would need to be translated into local languages – such as Amharic and Oromiffa – because many of the local enumerators and indeed interviewees were not proficient in English. Translating questions into the local language at the time of interview makes data collection tedious; it may cause bias and lack uniformity, especially with technical terms. Some partners translated the tools to Amharic, but others asked that the MWA Secretariat support them to translate tools to

local languages for consistency and to save time in the field. Translating the data back to English for data entry was also time-consuming, as CARE Ethiopia found.

Insights of the Partners on the Data Collection and Entry Process

MWA received much positive feedback after the initial round of data collection with the MEL framework tools in November 2011. Many commented that it was the first time they have comprehensive data for each and every scheme they developed and gave them an opportunity to reflect back on the work that had been done. CRS said that beyond measuring outputs, the on-the-spot data summary (called a Data Reflection Tool) enabled them to identify gaps, solicit remedies, and prepare mitigation plans in consultation with user community representatives. World Vision Ethiopia also said that the tool helped them to forecast work yet to be done. Living Water International found the MEL Framework minimises ambiguities and is an improvement over the M&E tools they had been using.

Highlights from Recent Monitoring Efforts

Even though the implementation of MEL Framework tools appeared daunting at first, all partners have successfully finalised the first data collection and entry process – this includes both quantitative and qualitative data.

Preliminary top-level findings from the recent partner monitoring exercise are shown in Table 1. The monitoring findings revealed that almost all schemes are functional. These findings are fortunately unsurprising given that data is being collected on schemes constructed since June 2011.

The top level findings also show some areas that need attention. For example, water scheme governance (WASH committee management) should be strengthened for communities where some of the partners (Living Water International, WaterAid Ethiopia, and CRS) work. Other areas where the monitoring data show areas of concern are tree-planting (related to IWRM), progress towards ODF certification; school budgets for WASH activities; and availability of soap for hand washing after a toilet visit (0%).

Findings from Applied Research

The MEL framework also includes applied research studies on topics relevant to the objectives laid out in the Policies and Strategies document. For example, a study on water equity was recently carried out by Emory University in collaboration with Jimma University and LWI/EKHC.

The draft report "Assessing Determinants of Equitable Access to and Use of Improved Water Resources" suggests that the water provided from improved sources provided under the programme was being accessed equally by the poorest and other members of the community. Additional findings, some of which were surprising, were:

- Distance to the source was not a significant determinant of either use of improved water source or quantity of water collected.

- Quantity restrictions placed on the water points by WASH committees caused widespread concern at some sites.
- Increasing access to improved water sources probably will not address the complex barriers to increasing the quantity of water used. Most families make only one trip to collect water each day, and they do not collect the maximum.
- The poorest families were benefitting in both outcomes equally, in spite of higher costs at some improved water points.

Conclusions

Success Factors

One of the critical success factors is that all partners saw the value in utilising a shared measurement system and were actively involved in its design. That said, it should be recognised that it took nearly six years of joint programming before partners decided on a set of common indicators and a framework for monitoring them. MWA views the adoption of a uniform MEL framework for all future phases as a direct result of the process of working in partnership and building trust over a period of time.

Having a third party, the CGSW, lead development of the framework helped to remove any tensions between partners. Rather than feeling they were being forced to take on someone else's monitoring programme, all partners were consulted by the CGSW throughout the development, and asked to comment on the framework before it was finalised. Roll-out of the framework to the partners for implementation included a familiarisation workshop.

For whom does one monitor?

Data from these monitoring exercises will be analysed and used by MWA-EP partners and shared with donors to the programme. The MWA overall is looking at ways to better share the learnings across country programmes.

The MWA-EP Strategies and Implementation document includes as a specific objective to operate a learning and policy influence alliance to improve the implementation activities of partners; contribute towards the harmonisation and greater effectiveness of programmes, and to raise awareness for the WASH sector in Ethiopia and internationally (MWP Ethiopia, 2011). Thus during 2013, the MWA-EP will invite national government representatives and other WASH implementing organisations to a learning event to discuss on the findings of the monitoring exercises. The MEL framework does not require consultation with government, but partner staff regularly review and share results with respective local government entities and Woreda WASH offices and with the national government.

As all partners collect the same data using the same indicators, they will contribute to a "trove of data that can be analysed and interpreted for patterns to improve current and future programs" (Siseraw Consultancy, 2012). This MEL framework should help to better inform MWA partners – both in Ethiopia and in the US – about each other's

comparative progress towards the shared goal. The MEL process will also help us to better target areas where certain partners are struggling or succeeding. Thus we can further focus our learning themes and efforts to address challenges.

With the new shared MEL framework, the links between the programme outputs and indicators to those of the Government of Ethiopia are now much clearer. As the partners contribute to the government information systems and database, more information is captured at the national and local levels and the contribution of the MWA-EP to national systems and goals is more transparent and quantifiable.

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Table 1: Summary of the major field monitoring findings

Indicator	TOTAL from all reporting periods	12-Nov	MWA-EP Partners				
		Total MWA-EP	CARE	CRS	LW	WA	WV
% Schemes that are functional	97.8%	97.8%	100.0%	90.9%	98.3%	100.0%	100.0%
% Schemes did water testing & OK	81.8%	81.8%	100.0%	9.1%	100.0%	100.0%	100.0%
% Schemes with trees planted	33.3%	33.3%	100.0%	27.3%	1.7%	0.0%	37.5%
% Schemes with caretaker	81.3%	81.3%	100.0%	27.3%	79.3%	100.0%	100.0%
% WASH-Co with 50%+ women participation	40.9%	40.9%	100.0%	0.0%	78.6%	0.0%	25.9%
% WASH-Co with up to date records	66.6%	66.6%	100.0%	90.0%	36.2%	20.0%	86.6%
% WASH-CO with bank account	41.7%	41.7%	85.1%	30.0%	6.9%	0.0%	86.6%
% WASH-Co that receive regular user fees	50.2%	50.2%	59.6%	90.0%	29.3%	0.0%	72.3%
% WASH-Co with enough money to cover costs	69.2%	69.2%	95.7%	100.0%	20.7%		60.4%
Avg. "No" red flags for functionality	3.8	3.8	1.0	3.3	3.5	8.4	2.8
TOTAL Avg. "No" red flags (for functionality, maintenance, governance & financial management)	10.6	10.6	4.5	9.4	8.8	24.4	6.0
% of kebeles declared ODF	24.0%	24.0%	0.0%	100.0%	20.0%	0.0%	0.0%

Indicator	TOTAL from all reporting periods	12-Nov	MWA-EP Partners				
		Total MWA-EP	CARE	CRS	LW	WA	WV
Avg. % villages declared ODF (progress toward full kebele ODF declaration)	17.2%	17.2%	23.2%	20.0%	25.6%		0.0%
Avg. "No" red flags for Sustainability for sanitation facilities	4.0	4.0	4.5	6.0		1.5	
Avg. "No" red flags for Management	1.0	1.0	0.0	2.0		1.0	
Avg. "No" red flags for Latrine Management	0.7	0.7	0.1	0.0		2.0	
TOTAL Avg. "No" red flags	5.7	5.7	6.7	8.0		2.5	
% schools with budget for WASH activities	33.1%	33.1%	50.0%	20.0%	NA	0.0%	62.5%
% schools with water available every day (reported)	50.6%	50.6%	37.5%	40.0%		50.0%	75.0%
% schools with hand washing available	50.0%	50.0%	33.3%	25.0%		100.0%	41.7%
% schools with soap available	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%