

# Assessment of the sustainability of water and sanitation services set up as part of the WaterAid/EUWF Post-Conflict project in Uganda

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*Cover picture: community consultation in Ajepet A village, Gogonyo Sub-County, Pallisa District.*

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## Glossary

CBMS	Community-Based Maintenance System (for rural water supplies)
CLTS	Community-Led Total Sanitation
DWD	Directorate of Water Development (of MWE)
DWSCG	District Water and Sanitation Conditional Grant
DWSSCC	District Water Supply and Sanitation Coordination Committee
EHD	Environmental Health Division (of MoH)
EU / EC	European Union / European Commission
EUWF	European Union Water Facility
GBP	Great Britain Pound
GoU	Government of Uganda
HEWASA	Health through Water and Sanitation (WaterAid implementing partner)
HPM	Hand Pump Mechanic
ISH	Improved Hygiene and Sanitation Strategy
LG	Local Government
MoH	Ministry of Health
MoH	Ministry of Health
MWE	Ministry of Water and Environment
MWE	Ministry of Water and Environment
O&M	Operation and Maintenance
PHAST	Participatory Hygiene and Sanitation Transformation
RGC	Rural Growth Centre
TEDDO	Teso Diocese Development Organisation (WaterAid implementing partner)
TSU	Technical Support Unit (of Ministry of Water and Environment)
UGX	Uganda Shilling
UMOJA	An approach to sanitation and hygiene promotion based on CLTS, PHAST and the formation of clusters of households
UPE	Universal Primary Education
USD	United States Dollar
WEDA	Wera Development Association (WaterAid implementing partner)
WSC	Water and Sanitation Committee
WSC	Water and Sanitation Committee

## Exchange Rates

Approximate rates of exchange at the date of this report

Euro 1.00	UGX 2,668
GBP 1.00	UGX 4,200
USD 1.00	UGX 2,668

## Acknowledgments

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## Map

Project districts are highlighted thus: 



**Note:** since the production of this map, many more districts have been created. The present total stands at more than 120. In relation to the EUWF Project, Katakwi has been split into Amuria and Katakwi, both of which are part of the project); Pallisa has been split (into Pallisa and Kiboko, both of which are included in the project); and Moroto has also been split (into Moroto and Napak – the project is only working in Napak).

# 1. Introduction and background

## The assessment

**This assessment.** WaterAid commenced implementation of a 5-year EUWF-funded water and sanitation project<sup>3</sup> in June 2011. In response to the first year project progress report, and the EU's wider concerns about the sustainability of its funded WASH projects more generally, this sustainability assessment was commissioned.

**Purpose.** The overall purpose of the assessment is to understand if the arrangements put in place in the project will ensure sustainability of water and sanitation services and hygiene behaviour changes. The assessment also undertakes a wider examination of the Community-Based Management System (CBMS) for rural water services, as set out in various national policy documents and put into practice by District Local Government and NGO actors. It also explores what an equivalent of CBMS would look like, as it applies to sanitation and hygiene.

**Readership.** The report is therefore expected to be of interest not only to the EC, but also to Government of Uganda and NGOs other than those directly involved in the EUWF Project.

**Objectives.** The assessment was carried out according to the terms of reference in Annex A. The specific objectives of the assessment, as expressed in those TOR are:

1. to determine whether CBMS arrangements set up as part of the WaterAid/EUWF Post Conflict Project and more broadly within target districts are sufficient to result in lasting services (sustainability);
2. to determine the extent to which the roles and responsibilities of different actors designated to provide external financial, management and technical support to communities set out in the *MWE District Implementation Manual (2013)* and in the *National Framework for Operation and Maintenance of Rural Water Supplies (2011)* are played out on the ground, commenting on whether support from these institutions is sufficient to result in lasting services;
3. to identify any gaps and weaknesses in the areas above and make recommendations on how they may be strengthened as part of activities undertaken in the remainder of the EUWF Post Conflict Project;
4. to propose a format for a workshop to be held with relevant stakeholders aimed at embedding the recommendations within the remainder of the project.

**Approach.** The methodology used in the assessment consisted of open, participative, conversations with key informants from the Ministry of Water and Environment (including MWE's Technical Support Units), District Water Offices, Sub-County officials, WaterAid and WaterAid's NGO partner staff, and communities. In all these interviews / discussions, the aim was to gather experiences and considered views of the different stakeholders, wherever possible triangulating these for verification, and synthesising the results into the main sections of this report.

**Geographical focus of the assessment.** The fieldwork was undertaken in Amuria, Katakwi, Masindi and Pallisa Districts. Time did not permit travel to Karamoja. The agro-pastoral cultures in Karamoja, together with the context of recurrent drought, chronic poverty, food aid and many other

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<sup>3</sup> The project is entitled "Equitable and sustainable access to safe water, improved sanitation and hygiene for poor communities in post-conflict areas of Uganda", and it works in six districts: Amuria, Katakwi, Kiboko, Masindi, Napak and Pallisa.

specific features mean that the findings of this assessment may have limited relevance to Karamoja. The problem of sustainability in Karamoja is far more intractable and challenging than in the other Districts which have been affected in different ways by past conflicts and the responses of the aid community.

**Details.** The itinerary followed in the assessment is set out in Annex B, and a list of persons met and interviewed in Annex C. The work was undertaken by Prof Richard Carter (WaterAid Consultant) and Mr Geoffrey Kidega (WaterAid Senior Programme Coordinator) between 3<sup>rd</sup> and 14<sup>th</sup> February 2013.

## **Sustainability**

**Definition.** The understanding of sustainability used in this assessment is that which has been defined by WaterAid in its Sustainability Framework, namely *“Sustainability is about whether or not WASH services and good hygiene practices continue to work and deliver benefits over time. No time limit is set on those continued services, behaviour changes and outcomes. In other words, sustainability is about lasting benefits achieved through the continued enjoyment of water supply and sanitation services and hygiene practices.”*

**A well-oiled machine?** In order for such a right but ambitious goal to be achieved, all actors need to play their part. Weaknesses in any one set of roles and responsibilities can undermine sustainability. To this extent, sustainability is like a chain, in which failure of any one link results in breakage of the chain. Or a better analogy is that of a machine (eg a bicycle or a car); failure of some parts (eg the fuel system in a car) can be catastrophic, while failure of other parts (eg the mudguards in the case of a bicycle) reduces performance, but does not affect the ability of the rider to move from A to B.

**Roles.** In relation to rural water supply and sanitation services and the practice of good hygiene, the achievement of sustainability is determined by:

- (a) the attitudes and behaviours of individuals and households, including their demand for better services;
- (b) the way in which projects and programmes are implemented by local Governments and NGOs;
- (c) the effectiveness of follow-up support and monitoring of communities and households by local Governments and NGOs; and
- (d) the appropriateness of policies, investments and other actions by central Government.

**CBMS in Uganda.** Uganda has for many years promoted the idea of Community-Based Management Systems (CBMS) as the strategy for achieving sustainability of rural water services. There is no such equivalent for sanitation, and this reflects the continuing weakness in national strategies for improving and sustaining sanitation at household level, in public institutions (eg schools and health centres) and in public places (eg markets).

**CBMS** is built on the principles<sup>4</sup> of community demand for improved services (including making a cash contribution to the capital cost); community ownership of facilities; community responsibility for all routine maintenance and repairs (including financial responsibility); and limited external

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<sup>4</sup> Set out in the following MWE documents: the Sector Specific Schedules/Guidelines, 2012-2013; the National Framework for Operation and Maintenance of Rural Water Supplies in Uganda, 2011; the District Implementation Manual, 2012, Steps in implementation of water and sanitation software activities, 2004; The Sanitation mobilisation steps (MoH/EHD,2005) and the Planning guidelines for hygiene promotion and education, in the Improved Hygiene and Sanitation Strategy (ISH).

support from the private sector (artisans and mechanics) and from local Government. The Government of Uganda has set out nineteen Software Steps and six Critical Requirements for water and sanitation. The Software Steps and Critical Requirements are summarised in this report in Annexes D and E respectively.

**The Software Steps** draw particular attention to the need for post-construction support of community management (steps 18 and 19) and refer to the (then in 2004) 12% of District Conditional Grant budgets allowable for software activities. That figure was later reduced and currently stands at “*up to 8%*” (in the 2012-13 Sector Specific Schedules / Guidelines).

**The two key questions** of this assessment are:

1. Will the manner of implementation of the EUWF project result in the best possibilities of sustained outcomes?
2. Will the actors other than WaterAid and its NGO partners fulfil their roles in supporting sustainability, after the withdrawal of the NGOs?

These questions are addressed in sections 2 and 3 of this report, respectively.

There is however **a third key question**, and that is:

3. Are the Community-Based Maintenance System for rural water supply, and its equivalent for sanitation and hygiene, fit-for-purpose?

This question is discussed in section 4.

Sections 5, 6 and 7 cover recommendations, workshop plan and overall conclusions, as required by the TOR (Annex A).

As will be evident in section 4, this report finds the current CBMS approach wanting in a number of regards. It would therefore be inappropriate to use the GoU CBMS guidelines as the benchmark for judging the sustainability of the EUWF project. Instead, the benchmark used is WaterAid’s Sustainability Framework.

## **2. The prospects for sustainability of the Post-Conflict Project**

**Four essentials for sustainability.** This section addresses the specific question of the likely sustainability of the interventions made as part of the EUWF project. It is structured according to the main elements of WaterAid’s Sustainability Framework (Annex A). This Framework identifies four essentials for sustainability (sub-divided into 14 components):

1. Real demand for WASH services and hygiene behaviour change (component 1).
2. High quality of design and implementation of WASH interventions (components 2-8) leading to
3. Strong community and household level management of WASH services (component 9).
4. Appropriate and effective external support to community management (components 10-14).

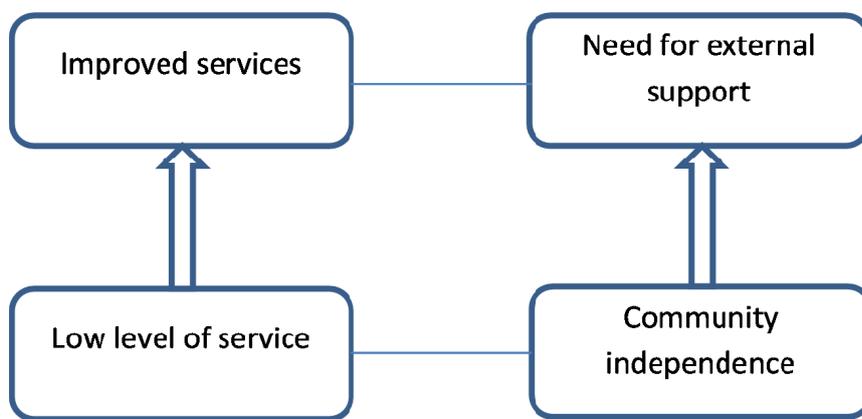
**On-going external support.** In the past, the assumption has been that only the first three elements are necessary. This is a flawed approach. Households can only be truly independent of external support if they use unimproved (non-engineered) water sources and if they defecate in the open or in traditional pit latrines made entirely from local materials. As soon as services are provided which use materials and technologies which are unavailable within communities, a situation of inter-

dependence is created. Service levels improve, but this is at the expense of an increased level of dependence on external suppliers of skills, technical and other advice, goods and services (Figure 1).

This tendency is readily apparent when one thinks about urban water supply services. These are too complex to be managed at user level. A high level of service requires corresponding specialist skills provided by professional organisations other than the water users. Community management gives way to professional management and a customer-provider relationship.

In the following paragraphs ratings are given against each component of WaterAid’s Sustainability Framework, using a simple “traffic light” scale.

**Figure 1 Services levels and dependence on external support**



### **Establishment of demand for WASH services in the EUWF project (1)**

Rating 

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**Community selection.** All of WaterAid’s partner NGOs operate under agreements and MoUs with District and Sub-County local Governments. In the selection of communities, the NGOs are guided by Sub-County extension staff and administrative cadres, while endeavouring to avoid undue political pressure. Need for WASH intervention is confirmed on the ground by conducting participative needs assessments and undertaking detailed baseline surveys.

**Sanitation first.** The EUWF project implementing partners first promote improved sanitation and hygiene (through an approach entitled Umoja – see Box 1), and only later, if at all, improve water supply.

**Demand for sanitation and hygiene.** It would be extremely unusual for a community to articulate demand for improved sanitation and hygiene. This is in contrast to the much more commonly expressed demand for improved water supply. It is therefore unrealistic to expect that communities would express strong demand for the specific content of the initial intervention made by WaterAid’s NGO partners.

**Community response.** The reality on the ground is that communities frequently (but not always) respond very positively to the offer made by the implementing partner to engage with them. This is

initially demonstrated in the rapid progress made by households in improving their own sanitation and hygiene facilities (see Table 1 for an example), and later in the strong appreciation they show for the benefits of that improved sanitation and hygiene status.

**Demand for improved water supply.** Many communities then continue to express demand for improved water supply. Despite the fact that the project does not have the resources to respond to all these demands, many communities nevertheless continue to value their sanitation and hygiene improvements. A few may become discouraged by not receiving an improved water supply (usually a borehole with handpump).

**Table 1 Hygiene and sanitation progress in Agule village, Pallisa District**  
(46 households, population 382).

	Latrines	Hand-washing facilities	Bath shelters	Drying racks	Refuse pits	Kitchens	Animal houses
Pre-intervention	15	0	21	11	0	39	0
Post-intervention	44	40	42	40	42	42	10

### **Box 1 The Umoja approach to sanitation and hygiene promotion**

**Umoja** is a blend of the best of three sanitation promotion approaches with which WaterAid has extensive experience. In its literal translation (“unity” in Kiswahili) it is applied with a twofold meaning. On one hand it refers to a unification of sanitation approaches i.e. Community Led Total Sanitation (CLTS); Participatory Hygiene and Sanitation Transformation (PHAST); and Clustering; using the best of each approach to accelerate community action. On the other hand it refers to joint action or cooperation in the community to improve their sanitation and hygiene situation.

**Community Led Total Sanitation (CLTS)** is an approach focused on stopping open defecation (OD) within a community, recognizing that individual hygiene behaviour can affect the health of other community members. The approach encourages innovation and commitment within the community, motivating them to build their own sanitation infrastructure without depending on hardware subsidies from external agencies.

**Participatory Hygiene and Sanitation Transformation (PHAST)** is a participatory learning methodology that seeks to help communities improve hygiene behaviours, reduce diarrheal disease and encourage effective community management of water and sanitation services.

**The Cluster System** was developed by WaterAid in order to capitalise on the strength of relatively small, coherent groups of households. Communities are divided into clusters of 8-15 households to jointly promote improved hygiene and sanitation under their cluster head and Hygiene Educator.

## **Design and implementation of the EUWF project (2-8)**

There is general awareness among WaterAid’s partner NGOs about the requirements of the GoU in regard to CBMS. This may not always express itself in full familiarity with the relevant documents, and this is an area for potential improvement (see section 5). However, implementation by WaterAid’s partners is fully consistent with the CBMS principles, the Software Steps, and most of the Critical Requirements, set out in section 1 and Annexes D and E. This is enlarged upon in the following paragraphs which follow components 2 to 8 of WaterAid’s Sustainability Framework.

**Full user participation (2). Rating** 

All of the project interventions at community level begin with the application of the Umoja approach to sanitation and hygiene promotion. This is fully participative, involving the entire community, and with leadership roles (the Cluster Heads who form the Water and Sanitation Committee, and the Hygiene Educator) being well distributed between women and men. Youths and the elderly are well involved, as was particularly demonstrated during the visit to Ogwotai, Amuria District, during this assessment. There was no evidence from the fieldwork that women lacked confidence or the willingness to participate as fully as men.

In the common distinction between “software” and “hardware” activities, the Umoja approach is entirely one of software delivery by the implementing agencies. The hardware which is constructed (latrines, dish racks, bathing shelters, hand washing facilities and so on) is all fabricated by households, with advice from the implementing partners.

In the cases where communities subsequently receive borehole water supplies, the previously established Water and Sanitation Committees receive additional training to enable them to manage and maintain their new water point.

In regard to participation, there is a danger that the same individuals and community teams are called upon time after time to act in a voluntary capacity. This puts in question their ability to deliver high quality results.

**Technology fit for purpose and chosen by users (3). Rating** 

All sanitation and hygiene technologies are constructed from locally available materials. Only handwashing facilities (which utilise small plastic water containers) and latrines (some of which incorporate concrete squatting slabs) use materials which are not freely available in the village. However the materials and skills to make these items are readily available in the wider environs.

Water supply technologies (boreholes, rainwater jars, ferrocement tanks, and lined school latrines) require expertise and materials external to the community, both for construction and for subsequent repairs and maintenance. Their use therefore start to move communities up the (inter-) dependency diagram shown as Figure 1. They necessitate what the Software Steps describe as “*continuous follow-up ...*”. This is discussed further below.

**Capital contribution by users (4). Rating** 

In the EUWF project, all hardware investments in sanitation and hygiene facilities are made by households. The GoU requirement for capital contributions for boreholes (UGX200,000) is strictly adhered to, with those monies being deposited at the District, and a receipt being issued. There are no such requirements for capital cost contributions for rainwater jars (which are targeted to vulnerable households) or for ferrocement tanks and latrine blocks at schools and health centres.

**High quality of implementation (5). Rating** 

During this assessment it was clear that the quality of software and the software providers (WaterAid’s partner NGO Field Assistants and Project Officers) is very high.

The small amount of water supply hardware seen was of good construction quality above ground, but what is less clear (and very difficult to judge) is the construction quality of below-ground

components of boreholes and school latrines. This can only be assured by close and high quality supervision of drillers and artisans.

**Appropriate tariff structure (6). Rating** 

All project communities are “encouraged” to determine a monthly per-household user fee, to pay this regularly and to manage it responsibly. There is a general recognition that this is a challenging aspect of water supply sustainability, but those challenges have not yet been fully faced and addressed.

The absence of village banking facilities renders community-generated funds vulnerable to mis-use and theft. Where such facilities are available, the potential for good financial management is correspondingly higher.

It has been suggested that communities may be unwilling to trust sub-County local Government to hold accumulated funds on their behalf. This was not explicitly stated by any of the communities visited, but it is highly plausible.

There is some belief among implementing partners and District local Government that the use of O&M revenues in community-managed revolving funds holds promise (and there are some successes here), but there is no formalised training of communities in this approach.

A major weakness in the attempts by all players in the water sector to ensure that repairs can be paid for is ignorance about the actual costs of operation, minor maintenance and capital maintenance – and how these costs vary across water points. There is probably no sector other than rural water services in which service users determine their own tariffs, in almost total ignorance of likely future costs of O&M.

**Environmental aspects properly addressed (7). Rating** 

This component of implementation requires attention to be paid to water resources, both quantity and quality, and it encourages the re-use of sewage sludge wherever appropriate or possible. The main aspects of relevance to the EUWF project are the need to protect the water quality in boreholes from contamination by human or animal excreta, and the need for water quality testing both at the time of construction and post-construction.

The first of these is generally well handled, as implementing partners are aware of the need to separate boreholes from latrines by a sufficient distance, and to fence and protect the environs of boreholes. These messages are included in the training of Water and Sanitation Committees.

Water quality testing is carried out at the time of borehole completion, although more could be done to quality-assure the testing regime and results. WaterAid in Uganda is well aware of this, and attending to it.

In regard to sanitation, village pit latrines can usually be relocated as they fill (although with time, and increasing population density, this will become increasingly difficult). There is a major issue however with lined school latrines, as these are rarely emptied when they fill, and even if they were to be emptied there is no strategy for safe disposal or re-use of sewage sludge.

**Monitoring system in place (8). Rating** 

It is evident in the EUWF project that the WSCs and Hygiene Educators are generally well-informed about the status of hygiene and sanitation in their communities. In the assessment, one of the WSCs admitted to having ‘relaxed’ in relation to this monitoring as they had already reached nearly 100% coverage of all hygiene and sanitation facilities – this was the exception however among the communities visited.

The implementing partners are extremely well-informed about the status of ‘their’ communities. However this will change as the NGOs move on to new locations and the task of monitoring transfers to local Government. Sub-County extension workers lack adequate resources to continue the level of monitoring required in future (see section 3).

### **Quality of community management in the EUWF project (9)**

**Rating** 

The assumption in WaterAid’s Sustainability Framework is that if community demand for improved services is real and strong, and if interventions are designed and implemented with due regard for the issues just discussed, then community management has the best prospect of succeeding (at least until it experiences some major shock or challenge).

In the EUWF project, both these conditions are fulfilled, although much more remains to be done to adequately address the financial aspects of community management. Such a conclusion would apply to most Government and NGO interventions in water and sanitation however.

### **Written and legal agreements**

Although not explicitly mentioned in WaterAid’s Sustainability Framework, there is great value in having written agreements with communities in regard to

- general roles, responsibilities and commitments;
- arrangements over land title in the case of water supply assets<sup>5</sup>;
- O&M plans, as required by Uganda’s CBMS.

In the EUWF project these aspects are attended to and addressed in detail in community meetings, but there is no corresponding formal documentation. Land title for borehole sites is not formalised.

## **3. External post-construction support (10-14)**

**Community management is not enough.** WaterAid’s Sustainability Framework points out that the establishment of strong community ownership and community management arrangements at the outset are no guarantee of effective performance over the long term. Numerous trends, threats and shocks affect the performance of community managed water and sanitation systems, and it is not surprising therefore that “slippage”, deterioration or relapse occurs. A car which is not regularly refuelled, and which does not have its oil topped up and changed as needed, will soon stop running. In the case of rural water and sanitation services, changes in the human factors, technology

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<sup>5</sup> WaterAid’s recent research report, “*The implications of land policies and laws on WASH rights and service delivery*” (Eddie Nsamba-Gayiiya and Herbert Kamusiime, WaterAid/EU, January 2013) sets out a detailed analysis and recommendations concerning land tenure issues.

performance and economic and natural environment all threaten sustainability. External support is necessary.

**External support in GoU policy.** The GoU guidance documents in regard to rural water and sanitation are somewhat ambiguous as to the extent of external support which local Government should provide. The following quotations illustrate this diversity of position. The emphases are ours.

*“The community is responsible for management and maintenance of their water facilities ... Sub-County extension workers can carry out ... follow up and monitoring of WSCs to provide back up support ... The District provides backup support and technical guidance to sub counties in planning and budgeting, implementation and monitoring of their work plans ... It should also budget for major repairs/rehabilitation ... and also play a key role in ensuring established standards for O&M are maintained ... The HPMs, masons and plumbers carry out maintenance and repair work and are paid by the communities.”* [National O&M Framework, July 2011].

*“The O&M Framework is in line with the Community-Based Maintenance System in Uganda. Under CBMS community members are responsible for operation and maintenance of their water supplies ... Rural Strategies H: Phase out use of grants for operation and maintenance ... The local community have full responsibility for scheme operation and maintenance and replacement costs ... Communities may seek assistance from DLGs towards undertaking major repairs. The DLGs are mandated to use private contractors to carry out rehabilitation.”* [District Implementation Manual, 2012].

*“Users are fully responsible for all routine operation and maintenance activities and costs ... The DWSCG may be allocated as follows: (a) rural water supply facilities not less than 70%, (b) software activities for rural water supply and sanitation up to 8%, (c) rehabilitation of boreholes and piped schemes up to 13%, (d) construction of sanitation facilities up to 3%, (e) supervision, monitoring and DWO operational costs up to 6%.”* [Sectoral Specific Schedules/Guidelines 2012/13].

In addition, the Software Steps call for Sub-County extension workers to provide “*continuous follow up*” of every community quarterly (step 18), and “*continuous replacement and retraining of WSCs that disintegrate*” annually (step 19).

The main O&M questions are:

- Are communities responsible for routine O&M only, or ultimate replacement too?
- Can the post-construction support to communities set out in the Software Steps be delivered with the limited budgets which Sub-Counties have?
- How can Districts provide any meaningful O&M support from the 8% allocated to software activities?

**NGO withdrawal.** When WaterAid’s partner NGOs withdraw from intervention communities, follow up and support falls to Sub-County and District Local Government. In the following paragraphs we assess the strength of that support, again in relation to the relevant components of WaterAid’s Sustainability Framework.

**External support to community management (10). Rating** 

The prospects of adequate follow-up and support to WSCs by Sub-County and District local Government appears poor. As one District Water Officer put it in relation to District-implemented activities, “WSCs are perfect for the first 3-4 months, but then by six months they tail off”. He blamed this on a combination of individuals relocating or being too busy, more attractive (non-voluntary) opportunities taking over, and the attitudes of other community members. It is also a reflection of rushed, last-minute software activities as undertaken by Districts (in contrast to the much more extensive and complete software undertaken by the best NGOs).

At Sub-County level, Health Assistants and Community Development Officers are the relevant extension workers. Their operating budgets are very small, and the transport facilities at Sub-County offices are limited. There was some debate in the various discussions held in this assessment as to whether it would be desirable to have water extension workers at the Sub-County level, but without adequate transport and training this would be an ineffective change.

The prospects of sustainability in the EUWF project rely more on the initial strength, commitment and resolve of WSCs and their communities than on subsequent follow-up. Some WSCs will fail, because of fatigue with voluntary service, lack of leadership, conflict, financial mismanagement or other cause. Overall there will be a gradual deterioration in WSC effectiveness when considering the project as a whole.

**Technical assistance to WSCs and users (11). Rating** 

A further area of ambiguity in the application of local Government support to communities is the distinction between minor and major repairs. Some Districts apply a financial test – if the required repair exceeds UGX200,000 or 300,000, then it qualifies for rehabilitation. Others apply professional judgment, with no such financial limits. The latest version of the National O&M Framework makes distinctions between routine maintenance, minor and major repairs for boreholes (Table 2).

Major repairs become eligible for District assistance with rehabilitation, but such works have to be planned for sometimes more than one year in advance. A major technical failure then leaves the community unserved for a very long period.

Sub-County extension workers can do little or nothing to assist communities with technical advice in regard to handpumps, but the recent local Government focus on Hand Pump Mechanics (HPMs), and the formation of HPM Associations is a step in the right direction. HPMs can only survive however if communities are willing to pay for their services.

**Table 2 Routine maintenance, minor repairs, major repairs of boreholes with handpumps**

[Source National O&M Framework, 2011, section 7.3] [Note this list includes replacement of pipes / rising mains in both minor and major repair columns]

Maintenance	Minor Repair	Major Repair
Clearing drains and surroundings	Repair of damaged parts outside routine service	Fishing of dropped pipes and rods
Maintaining fence	Replacement of damaged slow wearing parts (handle, chain, few pipes and/or rods, cylinder)	Desilting of borehole
Periodical checking and service of handpump	Repair of cracks to platform or drain	Repairs to borehole casing and screens
Periodical replacement of fast-moving parts (buckets, valves etc)		Replacement of platform and drain
		Replacement of rising mains

**Recurrent cost sharing (12). Rating** 

**Costs and cost shares.** The recurrent costs required to achieve sustainable services are (a) the costs of parts and materials, and (b) the operational costs of support organisations (HPMs, Sub-Counties and District Water Offices). In some cases (major technical failures with boreholes) even the first of these may be unaffordable by communities. Communities are expected to cover HPM operating costs (time and transport). Local Government is still under-funded in relation to even its limited declared ambitions to support communities with O&M. In short, the direct costs to communities of O&M are their own responsibility, with the exception of the rehabilitation option following major breakdown. Cost-sharing is limited.

Indirect support costs (eg monitoring, training of HPMs, support to supply chains) are handled at Sub-County and District level, and are discussed in the next sub-section.

**Support to supply chains and service providers (13). Rating** 

**Spares.** Handpump spare parts supply does not appear to improve. Government is now leaving the spares market to the private sector, and this means that parts are only available in relatively few, widely spread towns and cities. The tasks identified for spare parts supply chains – Central Government “*ensure availability of spare parts in the country*” and Districts “*stock spare parts not readily available in the local market and sell them to WSCs*” – are not adequately addressed.

**Hand Pump Mechanics.** On the other hand, local Government has put a renewed emphasis recently on training, equipping and organising HPMs, and this may start to bear fruit. The effectiveness of the HPMs will depend heavily on community willingness to pay, and this is a fundamental challenge to the sustainability of rural water services.

**Support around externalities (14). Rating** 

**Ready to respond?** Numerous demographic, social, environmental and economic trends are taking place, and shocks such as crop failure, floods and droughts, and conflict also affect rural communities. In relation to the EUWF project and others like it, shocks to livelihoods affect ability to pay for water services; extreme weather or flooding may damage physical infrastructure; conflict undermines community coherence and ability to manage community services. How well equipped are Government and others to provide the necessary support when such trends and shocks affect community water and sanitation facilities?

**Assessing response capacity.** This is a difficult area to assess in general terms. If a severe event affected a large geographical area, Government and NGOs would undoubtedly respond with emergency assistance (as has happened in the past). More localised and more “routine” events tend to be rather invisible, and the response is correspondingly limited.

**Population trends.** Several informants in our assessment brought up the issue of rapid population growth, with its accompanying demand for facilities and resources. Arguably this is Uganda’s biggest single threat to water and sanitation service sustainability, both directly and in its knock-on effects.

## 4. CBMS – is it fit-for-purpose?

### CBMS for rural water

In the preceding sections, the EUWF project has been tested against the 14 components of WaterAid’s Sustainability Framework. The reason this was used as the benchmark is because of this consultant’s analysis and view that the GoU CBMS and the provisions for sustainability of sanitation are themselves no longer completely fit-for-purpose.

**Weaknesses of CBMS.** While the National Framework for Operation and Maintenance boldly asserts<sup>6</sup> that *“CBMS is widely endorsed and regarded as one of the best options for O&M of communal water supply facilities in rural areas and rural growth centres (RGCs)”*, this *“wide endorsement”* is not fully supported by most of the key informants interviewed in this assessment. Even the O&M Framework itself devotes an entire chapter<sup>7</sup> to ten *“critical O&M issues”* which at the best challenge, and at worst undermine, the CBMS paradigm. These issues are listed in Annex F with brief quotes from each section of that chapter. Furthermore, the statement in the Sector Schedules / Guidelines that *“prior to rehabilitation of boreholes, the LG shall reactivate the CBMS”* is an admission that at least some boreholes supplies fail, not only because of hardware failures but also because of human factors. At that point both hardware and software require rehabilitation.

**Re-visiting CBMS.** Without repeating the content of the O&M Framework (and the UNICEF study on which it was based), we highlight four broad issues here, all of which point to the need for a fundamental re-visiting of CBMS (without entirely discarding it).

**First, there are a number of social factors and social trends** which make CBMS increasingly difficult to implement successfully. Two factors in particular have persisted for many years: rural Ugandans have grown used to free handouts and they often (but with notable exceptions) resist participation in self-help initiatives; and rural Ugandans commonly resist the idea of payment for water services. Despite strongly articulated demand for better services, this is not reflected in a corresponding willingness to pay. It is increasingly a demand for free services.

On top of this, Ugandan society is changing – population is growing rapidly, with urban population expanding even faster than the national average. The convenient sub-divisions of the past (rural and urban) are blurring, as town- and city-dwellers retain one foot in the village (or conversely, rural people spend more time away from the village than in it). The former coherence and community spirit of rural society is fading, as are respect for leadership and rules. The spirit of voluntarism is weakening.

**Second, a number of institutional weaknesses persist.** It is still the case that releases of Conditional Grant funding to the Districts tend to be very late – commonly in the third quarter of the financial year. This means that work has to be compressed into a few months at the end of the financial year, at a time which does not fit the seasonal calendars of weather and farming or allow sufficient time for software activities. Compression of software activities in particular undermines their effectiveness.

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<sup>6</sup> Page 8.

<sup>7</sup> Chapter 4.

Local Government is still under-resourced, especially at Sub-County level. Sub-County Health Assistants and Community Development Officers act as extension workers, but they lack sufficient funding for transport. Furthermore there is no extension cadre at this level with specific skills in water supply O&M.

The project mentality of both Government (with annual cycles set in the context of reportedly unrelated 5-year plans) and NGOs/Donors militates against continual post-construction monitoring and support of communities – an essential requirement for sustainability.

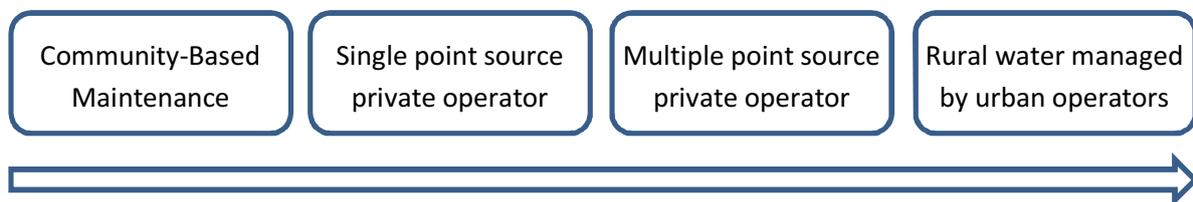
**Third, the national policies and guidelines are not always adhered to.** Districts commonly complain (with some justification) of the non-compliance of some NGOs with Government policies, and of their non-participation in the District Water Supply and Sanitation Coordination Committees (DWSSCCs). The best NGOs do comply and participate, but it is true that some do not, partly from ignorance and partly because of an assertion of their own independence.

It is also the case that at times some Districts fail to comply with Government policies. This may be because of compressed timelines, due to late release of funds, or because of under-resourcing, or in recent years because of the proliferation of Districts and the dilution of capacity which that entails.

**Fourth, there is a continuing problem of political interference,** which undermines the best attempts of local Government and NGOs to implement national policies. Some politicians are keen to claim all kinds of improved services as due to their influence, and they tend to resist any policies which require users to pay for services – even to the extent sometimes of paying personally for repairs to water points, but more commonly by telling users that there is no need to pay. The enforcement of national legislation and local by-laws is weak, and weakened further by political interference.

All of this points to the need for a paradigm shift in regard to O&M, and for wider choice of O&M systems – as one informant put it, *“getting away from a one-size-fits-all approach”*. There is an emerging view, expressed by several of our key informants, that we should be looking forward to a variety of private operator models in future, ranging from single-point-source management by a community member as remunerated operator, to multiple point sources managed by small businesses. This is not to say that CBMS is dead, but its demise may be foreseeable, and this should be planned for over the next decade or two. Figure 2 shows how this may happen.

**Figure 2 Possible medium-term trends in O&M of rural water supply in Uganda**



## A CBMS for sanitation?

**Sanitation.** The requirements for sustainability of sanitation and hygiene differ from those of water supply, and they differ between household sanitation, sanitation at public institutions (schools, health centres) and public places (such as markets).

**Household sanitation.** At household level, sanitation is seen as a private affair (although backed up by legislation requiring every household to have a latrine). With the advent of CLTS, and the requirement embodied in the Public Health Guidelines that household sanitation should strictly receive no material subsidies, investment is expected to come entirely from households themselves. This applies to the capital investments needed to construct latrines in the first place, minor operating (including pit emptying) and repair costs, and the major capital maintenance or replacement costs when a latrine needs to be upgraded or re-located. Pit emptying is not usually relevant for rural household latrines as re-location is usually possible. In denser urban settlements either pit emptying arrangements or alternatives to conventional pit latrines need to be investigated.

**Sanitation at schools and health centres.** Sanitation facilities at schools and health centres are assumed to be under the care and management of those institutions. In the case of UPE schools, inadequate budgets and failures in management mean that facilities frequently fall into disrepair, or fill up and are abandoned. Pit emptying, when carried out at all, is done manually. For example the nearest pit emptying truck to north-east Uganda is said to be located in Mbale or Jinja. Even when pits are emptied, disposal or treatment of sludge are not catered for, and dumping of sewage sludge then poses an environmental and public health threat.

**Public toilets.** Public facilities in markets can in principle be managed by private operators. However, they are often not viable as businesses, and they experience the vicious circle of inadequate revenues leading to poor service and unwillingness to pay.

**No strategy for sustainability.** In short, there is no coherent GoU strategy for the sustainability of sanitation services – no sanitation-equivalent of CBMS.

## **5. Recommendations for strengthening sustainability in the remainder of the project**

The recommendations in this section are made in relation to three time-scales:

- actions which can be taken in the next three years of the project;
- actions which can be started now and which will lead to results in 3-5 years' time;
- longer term actions which can help to steer thinking in the water sector over coming decades.

The recommendations are to WaterAid, but they fully involve WaterAid's implementing partners and the local Governments where WaterAid works.

### **Recommendations concerning project implementation**

**R1. Familiarisation with GoU provisions for sustainability.** Develop and implement (more than once) a 2-3 day participative and interactive workshop for implementing partners on the content, requirements, difficulties and challenges associated with the GoU provisions for sustainability of water and sanitation services. The purpose of this is to fully familiarise participants with the existence and content of the relevant documents, while also generating field-based experiences and learning to contribute to future revisions of the Government guidance.

**R2. Formal written agreements.** Undertake detailed consultations with partners and District local Governments around the desirability for and content of formal written agreements with communities, setting out

- roles, responsibilities and contractual commitments;
- land ownership arrangements, including the desirability of formalising title;
- O&M plans (in this case referring to and improving the template in the National O&M Framework).

The purpose here is to establish only such written agreements as will be effective and relevant in protecting the performance of rural water services provided.

**R3. Face the recurrent finance challenge.** WaterAid and its implementing partners need to develop a clear understanding of the true costs (and their variability across water points and over time) of sustainable rural water supply. Only then can communities be properly informed about what they are taking on. Likewise, options need to be developed and set out in detail for the management of user-generated fees for water services. Training in the management of revolving funds needs to be developed. The potential of Village Savings and Loan Associations needs to be investigated in depth. The potential for developing local level banking, using mobile banking technologies, and identifying and building on traditional ways of managing shared resources need to be investigated in detail. In short, the recommendation is to devote considerable effort to overcoming the numerous well-known O&M financing challenges.

**R4. Develop a strategy for sanitation sustainability.** At household level this will require maintaining the demand for improved sanitation, as well as working out how to provide appropriate support to supply-side providers of goods and services (in other words adding an element of sanitation marketing to CLTS/UMOJA). In particular it will need to develop practical measures for emptying and safe disposal / re-use of the contents of lined institutional latrines.

## **Recommendations about policy advocacy**

In the medium term (but starting now) several advocacy actions are needed in order to enhance the effectiveness of CBMS and its sanitation-equivalent. Weaknesses in the existing Government guidelines need to be addressed.

WaterAid should initiate discussions around the following topics (bringing together both policy and programme staff at WaterAid, with implementing partners and local and central Government).

**R5. More and better local Government funding for O&M.** Advocate for increased funding at District and Sub-County level, but specifically for the DWSCG to include a budget line for O&M commensurate with the number of existing water points already constructed. The logic behind this is that as coverage increases, spending should increasingly focus on maintaining what already exists, altering the balance from capital to O&M. Sub-County funding should focus on better resourcing of transport and field visits by extension staff.

**R6. More flexible District Government expenditure on major maintenance / rehabilitation.** Advocate for and contribute to establishment of clarity over the minor / major repair distinction. Remove the need for water point rehabilitations to be identified by name in the District annual work plans. Find other ways of enabling Districts to be more responsive when failures occur which are beyond the capacity of communities.

- R7. **District-based agreed scales of HPM charges.** Clarity and transparency about charges payable by communities to HPMs would help to remove any mistrust and suspicion which exists. Advocacy at local Government level for this would be a constructive step.
- R8. **Spare parts.** It is clear that the issue of spare parts availability has still not been solved in Uganda. A commitment on WaterAid's part to work with others and devise a workable solution would be another highly strategic and influential step in achieving sustainable services with short down-times.
- R9. **Advocacy to revise the CBMS.** CBMS was designed for a former world, a world which is changing rapidly. A thorough and critical review of CBMS, both as it exists on paper and through field experiences of its implementation, should lead to an overhaul of CBMS for the early 21<sup>st</sup> century.
- R10. **Articulation of a clear national strategy for sustainability of sanitation (see also R4).** The strategy for sanitation, such as exists is "bury and forget". This can work while population densities are low and full latrine pits can be abandoned and latrines relocated. This situation is changing however in rural areas, and it is never the case in RGCs, small and large towns and public institutions. A new strategy is needed to defuse the faecal time-bomb.

## **Recommendations about thought-leadership**

- R11. **Scenario planning.** Ugandan society is changing, in many ways very quickly. Few if any water sector players in Uganda are thinking strategically about water and sanitation in the longer term – ten to thirty years from now. WaterAid is well-placed to do just that, and to lead discussions on water and sanitation futures. By bringing together its national and international expertise in analysis and field experience, it may be one of the best-placed organisations to help all Uganda's water and sanitation players to work toward a common conception of the longer term desired future.

## **6. Workshop plan for embedding recommendations**

A 5-day workshop is proposed, in which the issues raised in this report and the recommendations made are jointly addressed by WaterAid, WaterAid's implementing partners and colleagues in local Government. Table 3 sets out a draft programme for the workshop.

Day 1 is intended to bring all participants to a common understanding of the GoU documentation on CBMS, and to begin some discussion of key aspects in preparation for the morning session on day 4.

Day 2 is all about development of workable financial solutions for O&M. It is intended to both fill knowledge gaps of participants and to elicit their experiences and ideas for input into the morning session of day 4.

The morning of day 3 is to help non-Government participants to understand the constraints faced by local Government in the execution of its duties. It will result in advocacy recommendations for the sector. The afternoon focuses on the private sector HPMs and access to spare parts. It is intended to result in specific workable recommendations to Government.

Day 4 brings together the earlier sessions to design (a) a revised and improved CBMS for rural water, and (b) a sustainability strategy for sanitation.

The morning of day five takes a longer look forward, identifying the implications of various key trends for the WASH sector, and designing a corresponding advocacy strategy.

**Table 4 Draft workshop programme.**

[Each session is of 1½ hours duration, with tea and lunch breaks as appropriate]

Session	Day 1	Day 2	Day 3	Day 4	Day 5
1	Participant and workshop introductions	Finance for O &M (1) what does it cost?	LG financing for O&M - realities	Designing CBMS for the 21 <sup>st</sup> century	Trends and futures
2	Government guidance and documentation on CBMS	Finance for O &M (2) Community fund management	LG financing - designing advocacy recommendations		Planning advocacy around future scenarios
3	Discussions around key elements of CBMS	Finance for O &M (3) Experiences from the field	Making HPMS more effective	Designing a strategy for sustainable sanitation	Close and depart
4	Discussions about value of written agreements	Finance for O &M (4) Knowledge gaps	The spare parts dilemma		

The workshop should attract staff from WaterAid, WaterAid’s NGO partners, local and central Government, and other players in the Ugandan WASH sector.

## 7. Overall conclusions

Table 4 sets out at-a-glance a summary of the ratings of 14 factors which contribute to the sustainability of the interventions undertaken in the EUWF project.

**Table 4 Sustainability assessment of WaterAid's EUWF project**

Sustainability component	Rating			Comments
Establishment of demand (1)				The high scores here reflect the strong and effective emphasis of WaterAid and the implementing partners on community-based software activities. Together these lead to strong prospects for sustainability.
Full user participation (2)				
Technology fit for purpose (3)				
Capital contribution by users (4)				
High quality of implementation (5)				
Appropriate tariff structure (6)				A weak area generally.
Environmental aspects (7)				The faecal time-bomb.
Monitoring system in place (8)				These are strong while the NGO is present, but after exit these ratings may worsen.
Quality of community management (9)				
Written and legal agreements				This area needs investigation.
External support to community mgt (10)				The less-than-perfect scores here reflect the weaknesses in both policy and capacity (especially financial inadequacies) at Sub-County and District level.
Technical assistance to WSCs (11)				
Recurrent cost sharing (12)				
Support to supply chains & SPs (13)				
Support around externalities (14)				

With the exception of due attention to financial aspects of sustainability, and practical strategies for sustainability of sanitation at institutions, and as population densities increase, project implementation is leading to strong potential for sustainability. The weaknesses are the subject of the implementation recommendations in this report.

Weaknesses in local Government capacity and resources, and also flaws in CBMS as a model for the 21<sup>st</sup> century, pose risks to sustainability. The advocacy recommendations in this report can help to mitigate those risks.

No-one can guarantee sustainability. It is only if all actors play their part in fully implementing appropriate and flexible policies and guidelines that sustainable outcomes will be achieved.