Madagascar WASH Sector Sustainability Check

Final Report (DRAFT)

January 2014

Peter Ryan WASH Consulting

Contents

Acknowledgments

Particular thanks to Silvia Gaya, Lalaina Andrianamelasoa, Jo Ravalomanda and rest of the WASH team at UNICEF; to the Secretary General, Director General and all the Directors, Regional Directors, and both regional and headquarters staff at the Ministry of Water; and to Lovy Rasolofomanana, Ridjanirainy Randrianarisoa, Edith Veromaminiaina and the Finance and Admin team at WaterAid.

Of course, responsibility for errors and omissions rests with me alone.

Peter Ryan, Antananarivo, January 2014.

Executive Summary

[to follow]

1. Introduction

Sustainability

There are two pictures imprinted upon the minds of all who are engaged in the WASH sector: the first is of a broken pump sitting untended and ignored, surrounded by growing weeds; the second is of a filthy, broken and squalid latrine, unfit for human use, avoided by its owners.

There is a crisis of rural WASH "sustainability" across the developing world. It is a fact that, in most developing countries, a significant proportion of rural water systems do not function within a relatively short period of being installed, that many rural sanitation facilities are not used either properly or at all, that declarations of total sanitation (communities free from open defecation) are too often superseded by a reversion to old habits, and that hygiene behaviours fade over time.

This crisis threatens progress across the rural WASH sector, and therefore is hampering economic and community development across swathes of countries in the global south. Whereas until recently the focus of the sector had almost uniformly been upon the provision of new water and sanitation infrastructure, and upon triggering new hygiene behaviours, it has now had to focus upon functionality as well as implementation, on looking after what has been provided, as well as providing more through scaled up implementation programmes.

There are issues of sustainability in urban WASH systems too but these are not seen as being as serious or intractable as those in rural communities. Therefore this report addresses only rural sustainability.

The impact of such slippage can be seen in myriad ways:

- The most obvious impact is that upon users whose systems have failed or are not used, or whose behaviours have reverted: the financial, health, education, dignity and gender safety related benefits that should be accruing to them slow down or cease altogether.
- The confidence of users and their communities in the systems and processes which had been provided or promised fades and is more difficult to rekindle or replace.
- The energy and enthusiasm of policy makers in government and of implementers in local government, NGOs or communities wane as their often herculean efforts are seen not to provide the outcomes that had been envisaged and/or promised.
- Funders/donors and policy makers seek to look elsewhere to put their funds and energy as they perceive that their WASH investment and resources have been wasted.
- The WASH sector is increasingly perceived as incompetent and a vicious circle of resource deprivation is likely to ensue, undermining the whole development effort.

What of the outcome? In the end morbidity/mortality increase provoking needless personal suffering, while individual, household, community and national development is stifled.

With 21% of the world's population not being able to use safe drinking water, and36% not having use of a toilet (at all or of acceptable quality)[1], a stark fact needs to be confronted: the target of universal access, which is the only reasonable target that can now be reasonably be contemplated and is very likely to be the headline target in the post 2015 global WASH monitoring framework, simply will not be attained until such time as the crisis in sustainability has been overcome.

This Report

This is a report on a research exercise to identify the scale and cause of sustainability problems in rural WASH provision in Madagascar. It is structured as follows:

- In the remainder of this section, the global and national contexts are outlined, followed by an outline of the Objectives of the research.
- The method by which the work was carried out is presented in Section 2.
- In Sections 3 and 4, the results of the work are presented, for rural water supply and sanitation respectively.
- Finally, in Section 5, conclusions and recommendations are provided.
- A series of Appendices are provided; these contain detailed materials used during the research in the field.

Global WASH Sector Developments in Sustainability

This crisis is increasingly acknowledged in the WASH sector and action is being undertaken to understand and then confront it. A number of studies have been carried out in an attempt to identify the issues which lie at the heart of system failure – particularly in relation to the rural water supply sub sector.

Some of the major areas that have emerged as being vital to address include a lack of support to communities after project implementation, including particularly a lack of capacity at the district government level, the absence of a chain for provision of spare parts, a lack of funds among rural communities for anything other than the most minor maintenance tasks, compounded by the absence of understanding of the nature and extent of the full range of costs that need to be covered in a full life cycle.

An equivalent analysis has yet to be carried out to the same depth where rural sanitation is concerned, where the sub sector has grasped Community Led Total Sanitation (CLTS) as *the* acknowledged way forward for triggering community implementation of toilets and adoption of suitable health promoting behaviours. The feeling is that if CLTS is supported by supply side development and marketing, with the institutional and policy elements also in place, then targets for coverage can be reached.

However, a similar situation applies for rural sanitation as for rural water supply: it is increasingly acknowledged that ODF declarations are not the end of the story and that people revert back to open defecation, or perhaps never actually stopped it in the first place. So, again, the possibility of attaining targets for universal coverage is being undermined by significant amounts of slippage.

[1] *Progress on Sanitation and Drinking Water – 2013 Update*. World Health Organisation and UNICEF Joint Monitoring Programme ("JMP"); WHO, Geneva 2013.

Some studies of the "sanitation ladder[2]" have taken place but the conceptual development of the sanitation and hygiene sector lags behind that for rural water supply. Indeed, it is easier to identify a lack of functionality in rural water supply than rural sanitation – pumps are easily visible and are public assets, it is relatively easy to establish if they are working.

Newly built latrines may not be being used for the purpose intended: it is their *usage* rather than their *presence* which is the fundamental point. With regard to hygiene behaviours, it is pretty much universally acknowledged that hand washing at key times, using soap or a suitable equivalent (hand washing with soap = HWWS), is the standard that needs to be reached; however, the central issue is that HWWS simply is usually not carried out by rural people in developing countries. While there are some observational difficulties in measuring HWWS reliably, again, the post 2015 monitoring environment is almost certain to include it.

Overall, the point has been reached where it is widely held that the community management paradigm for rural water supply needs to be reconsidered; also the triggering for CLTS is only part of a development that needs to embrace sanitation market development, and ongoing support or communities.

There is a growing belief that we have reached the point too where it is unhelpful to think in terms of infrastructure and systems, and should instead consider service provision as the aim. This is a fundamental change and is returned to later in this report.

So, the global context for the consideration of sustainability in Madagascar is one in which there is wholesale reconsideration of some of the most basic of building blocks of rural WASH concepts; it is therefore a good time, to be addressing these. But what of the WASH sector in Madagascar itself? This local context is considered in the next section.

WASH in Madagascar

According to UNICEF's Madagascar WASH Fact Sheet[3] for 2011, at that time, the country ranked fifth worst in the world on WASH indicators. The 2009 *coup* led to many donors withdrawing aid which has compounded the crisis that this fact sheet alludes to.

The details are presented in the 2013 "JMP" update[4], which shows that rural sanitation coverage (availability and usage) in Madagascar stands at a mere 11%, with nearly half of the rural population practising open defecation; it was already ranked the eighth worst in the world (UNICEF 2011). For this report on sustainability the key issues are not just the coverage numbers but the trends. For example, since the start of the JMP monitoring period (1990), the proportion using improved sanitation has nearly doubled but from a very low base; however even to reach the MDG target by 2015 would require that proportion to reach 53%.

[2] A process where it is hoped that community members will, as time passes, enhance the quality of the sanitation facilities they build and use, on the basis of an emerging acknowledgment of the benefits they are accruing though their changing behaviours. So, they will go up a ladder from a very basic latrine to a better one, and add improved hand washing facilities, particularly when the earlier facility fills or collapses.
[3] *Madagascar, a Silent WASH Crisis*. UNICEF Madagascar, Antananarivo, 2011.
[4] WHO/UNICEF JMP 2013, *op cit.*

Many countries have set themselves a target of eradication of open defecation; a reduction of nearly a quarter does signal some progress especially as the rural population has increased by nearly three quarters (72.7% since 1990) but clearly there is a mountain to climb.

As ever with sanitation, the proportion sharing facilities is of interest, with that proportion climbing to 16% in 2011. Some shared facilities will be of a high enough standard to be considered improved, many will not be, and some who claim to use shared facilities will simply be covering their own embarrassment at practising OD. In any event, an increase in sharing is not seen as a positive step necessarily.

Table 1: Use of Rural Sanitation Facilities (%), Madagascar 1999-2011

Year	Population (millions)	Improved	Unimproved		
			Shared	Unimproved	Open defecation
1990	8.6	6	8	23	63
2000	11.2	8	12	24	56
2011	14.3	11	16	24	49

Note: The JMP does not yet monitor hygiene coverage but is likely to start to do so soon.

The figures for rural water supply are a little better than for sanitation as is customary, with just over a third using improved sources, almost all of which are not piped, therefore communal facilities. However, with two thirds of the population using either surface water sources or unimproved sources (like unprotected wells, for example) there is a major infrastructure provision gap. Just to reach the water MDGs for rural areas would require access rates to reach 57% by 2015, as against 34% in 2011.

It is worth noting too, that the very high rate of rural population growth indicated in the Tables will be placing increasing stress on infrastructure which may well and will be likely to contribute to reduced functionality.

Table 2: Use of Rural Drinking Water Sources (%), Madagascar 1999-2011

Year	Rural Population (millions)	Improved			Unimproved	
		Total Improved	Piped on premises	Other improved	Un-improved	Surface Water
1990	8.6	15	1	14	35	50
2000	11.2	24	2	22	31	45
2011	14.3	34	2	32	27	39

The major levels of under-provision of infrastructure puts pressure upon government and implementing partners to engage in large scale infrastructure development – the need is undeniable. There is a caution though, as doing so runs the major risk of increasing problems of sustainability.

UNICEF's 2011 Fact Sheet also indicated that the Government cut health sector funds by 40% in 2010 compared with 2009. This funding restriction has been maintained since then, meaning that such items as new infrastructure, maintenance of existing ones and capacity enhancement are all but impossible from national budgets; when the reluctance of donors to engage in post-coup

development funding is taken into account, it might be felt that the picture is an unmitigated disaster.

This is not the full picture though. An analysis of the bottlenecks restricting the WASH sector making progress towards its targets was undertaken in late 2013. This "WASH BAT" analysis indicated that institutionally, the WASH sector is reasonably well equipped, at the centre at least has a erasable level of capacity, while the necessary sector policy documents appear to be in place and are sound. Additionally, major sector organisations, like the African Development Bank, the EU, USAID, JICA and WaterAid, as well as UNICEF, are all present and engaged in the sector[5]. It is understood that all of these agencies, plus others not engaged currently, are likely to step up their activities in the WASH sector, should the election process, now in its final stages, proceed to an accepted conclusion.

So, the sector is prepared to move forward, as quickly as possible after a resumption of "normality". Processes such as the WASH BAT, studies of CLTS and this Sustainability check are all attempts to position the WASH sector to spring forward.

Study Objectives

It is in this context that UNICEF set in motion the process to undertake a Sustainability Check or Snapshot, from mid-2013, on behalf of the Ministry of Water. The full Terms of Reference are reproduced as Appendix 1 to this Report but the salient items are shown in this section.

Levels of sustainability in the country, including those of UNICEF, are perceived as being extremely low. The country has not yet developed a WASH sustainability strategy but the government has requested the support of UNICEF in order to develop it. So, this consultancy was to answer to the need of the WASH sector to generate evidence regarding sustainability. The analysis was envisaged to provide an analysis across programs in order to identify practices that are enabling or restricting sustainability, thereby facilitating follow-up policy and programmatic development. At the same time it will allow UNICEF to understand how its own programmes are faring.

The overall objective of the sustainability analysis in 2013 is to assess the sustainability of:

1. New and rehabilitated water facilities implemented within the last five years though support from different agencies;
2. Sanitation infrastructure in schools and health centres;
3. Use of sanitation and hygienic practices in ODF communities.

By doing so, it will prompt any necessary sectorial discussions and will set up the main inputs to allow the subsequent development of a WASH sustainability strategy for the country.

Although some changes were made through the practise of the work as would be expected, the objectives of the consultancy at its outset were as follows, being to:

a) Develop an assessment methodology for undertaking regular sustainability checks of the water supply, sanitation and hygiene programme in Madagascar including sampling

[5] See *Madagascar WASH Sector Service Provision Bottleneck Assessment*; report for UNICEF by this author; January 2014.

methodology of water points (new and rehabilitated water points), of targeted schools and health centres for water points and sanitation infrastructure, and of villages declared Open Defecation Free.

b) Undertake the data collection exercise for the 2013 sustainability check in selected regions and districts.

c) Report on sector sustainability including clear recommendations on how to improve sustainability of WASH infrastructure in Madagascar that will trigger the development of a national sustainability strategy.

2. Methodology

Introduction

The initial task was to derive and agree a research method that could be used immediately and then be capable of being successfully applied in the future, to give the possibility of time series analysis and reporting.

Interest in collaborating in the research was sought at a meeting of the donors group held at the African Development Bank, on 28th August. The group did indeed express interest in the work and follow up meetings held. WaterAid in particular expressed an interest in engagement in the work and from that point on was a full partner in its development and application.

The work had been requested by the Ministry of Water, on whose behalf it was carried out. All subsequent activities were carried out alongside, or sometimes by, staff of the Ministry at relevant levels.

A suggested way forward was presented in a document circulated during September 2013 to the Ministry and WaterAid entitled *Sustainability check: Implementation Brief*. This was revised after discussion; it set out the skeleton of the method, indicating how the research should be split, into field work addressing rural water supply (RWS) and sanitation & hygiene (S&H) separately. There is no need to provide that document here as its contents are superseded by the account provided below.

It also indicated potential methods for addressing WASH in Schools and WASH in Health Centres; as the remit for WASH in these locations rests with other Ministries (Education and Health respectively), meetings were sought and conducted with relevant personnel to address how to take these forward (see section headed *Piloting and Conduct*

It was initially envisaged and agreed that staff from the Ministry of Water in Antananarivo would travel to the regions and work with regional colleagues to implement the fieldwork. In a small number of regions this would be replaced by UNICEF or WaterAid staff leading, supported by regional staff from the Ministry. This set up allowed for the team that was engaged in discussing the questionnaire development as it emerged, and which was engaged in the development of the sampling framework as it emerged, also to be at the heart of the data gathering process. They had received on-the-job training as the process unfolded. Indeed it was this team which went to Miarinarivo Sud, some fifty kilometres north west of Antananarivo in Itasy Region, on 11th October to undertake the questionnaire pilot.

Both questionnaires were piloted that day, having been translated into Malgache and having been supplemented by comprehensive guidance notes for enumerators/interviewers (see Appendix 2 for the RWS Guidance Notes and Appendix 3 for the ODF/HWWS notes, in both cases provided after the relevant questionnaires). No major glitches were found with the questionnaires or the verification instructions and so only minor changes were made before these declared to be finalised.

Just before going to the filed it was decided that there should be a change in the staffing arrangements for the fieldwork, and that the teams should be led from the regions, without the

inputs of central Min Eau staff. This led to a hasty rewriting of schedules and financing arrangements for the fieldwork thereby creating some delay but also meant, more importantly, that the staff that went to the field had not been engaged in the process and had not received training in the questionnaires and their basis. However, as the questionnaires were simple, if lengthy, and as written Guidance had been provided, the impact on quality of output is not felt to be serious.

The timing of the first round of the Presidential Election on 25th October also created further delay in the fieldwork, and so, the fieldwork was conducted starting on 1st November and ran for some three weeks, concluding towards the end of the month, before the rainy season commenced in earnest and so before travel became difficult or impossible in some locations..

WASH in Schools and WASH at Health Centres later in this Section for further details).

It was decided to embark on a significant data gathering exercise, in the case of RWS and S&H, using questionnaires administered by Ministry of Water or UNICEF staff, with community members.

RWS Questionnaire

So, a questionnaire for rural water service sustainability was drafted and the final version is appended to this document as Appendix 2. Reference to the previous section of this report indicates that there is significant interest in the topic of sustainability in rural water provision; a number of other organisations have ben addressing the issue and undertaken research exercises that had some similarity to this one.

There was, therefore, some existing material that allowed a comparison and enabled those overseeing this work to confirm that *state of the art* was being applied here. In this way, the RWS questionnaire drew upon elements from work carried out by Water and Sanitation for Africa, WaterAid, IRC International Water and Sanitation Centre, and USAID /Aquaconsult, as well as UNICEF in other locations. It was also sent for comment internally within UNICEF and useful commentary received from various sources.

The central issue here was to ensure that the questionnaire did not only cover issues of current functionality and technology type, age etc, important though these are. This was to be an exploration of linkages and causality, as far as possible.

As can be seen in Appendix 2 – Rural Water Supply: the RWS questionnaire is split into nine sections totalling 47 questions, relating to water service provision, as follows:

- Water system technology: what types of stem/s is/are present, what age are they, when were they rehabilitated, is it functioning currently, are unsafe sources (also) used? Note that the ToR specified, and it was confirmed in later discussions, that the analysis should concentrate on systems built or rehabilitated in the last five years as the principal concern in the sector relates to practices of management and support that are relatively recent.
- Population and accessibility: how many users are there for each waterpoint, and is that number changing; how long do users take to get to the waterpoint and how long do they have to wait once they are there?

- Water quality and quantity: how much are they able to draw, is this consistent and is the quality acceptable?
- Environment: is the water protected from human, animal and industrial pollution?
- Finance: did the community contribute to the construction of the system, is a tariff agreed and actually paid, what is the nature of the tariff and are sanctions applied against those who do not pay?
- Community management and structures: is there a functioning and adequate WASH committee in place, and are its operations accessible and transparent?
- Maintenance: is there a mechanic in the community or is maintenance outsourced; is there a maintenance plan and is it adhered to; does the community have an agreed method for carrying out and financing heavy maintenance and future capital replacement? Has there been a breakdown this year and for how many months this year has the system been functional?
- Supply chain: Is there an adequate, accessible and affordable chain?
- Institutional support: is there a support mechanism for the community for when things go wrong that they can't deal with themselves?

It therefore covers every aspect which is currently felt to impact upon sustainability of service provision to rural communities and reflects current RWS sector best practice. The questionnaire was closed, in the sense that only one answer could be supplied in every case, from a series of pre-set alternatives. This was to try and ensure a consistent and high quality of responses, as responses to open ended questions are notoriously difficult to analyse meaningfully.

It was felt that it would take around 45 minutes to administer this in a community setting, the "target" being WASH Committee members. Experience shows that non Committee members will also wish to attend the meeting; this was agreed to be welcome as such attendance helps to increase accountability and enhances community learning about the issues under discussion in the questionnaire.

Finally, previous experience had indicated that an official from the local government (*Communes* in Madagascar) would also be expected to attend. In the event in every case, no such official exists; which points to a problem identified clearly in the results (next Section).

ODF and HWWS Questionnaire/Inspection

The fieldwork in the case of sanitation and hygiene took account of the very different nature of infrastructure provision and service delivery in this area compared with water supply. In the case of the latter, (rural) water supply is largely communal in Madagascar as is confirmed in the JMP statistics in the opening chapter of this report. Most communities will have a waterpoint/s and this is the main point of delivery of the water service and so becomes the focus of analysis. As a generalisation for the purpose of this comparison, if there is a waterpoint then all community members can be considered served. Therefore, decision making, responsibility and accountability for the service have evolved to rest clearly at the community level, most often via a WASH Committee, while there is a focus of responsibility for supporting communities with external agencies (local government and/or the local private sector).

The position for S&H is far more complex and nuanced and these complexities and nuances impact upon research conduct and content. Here are the key issues in respect of sanitation:

- Sanitation technology is household based in that the choice to install a toilet is taken at that level (issues at the sub household level are also present in some locations, including Madagascar, where for example, taboos forbid some family members sharing use of latrines with others but such further decision making levels are not capable of being addressed in research of this type).
- If this was the sole issue then the analysis could concentrate upon coverage of latrines within communities, e.g. Community X has 76%, Community Y 56%... However, the first issue that arises is that what is important is not the *presence* of a toilet but rather its *usage*, which depends upon a range of factors (the strength of hygiene awareness of each household member, the condition and cleanliness of the toilet, the gender and age of the user and the relative safety of women and girls from sexual violence considerations, amongst many others).
- However, the sector has also become critically aware that benefits to all community members accrue only if *everyone* in that community has and uses a toilet. The concept of open defecation free (ODF) areas was adopted in recognition of this fact and most (if not all) sanitation programmes in Madagascar seek to trigger ODF.
- So the unit of analysis should be ODF communities but not all communities that have been triggered (through the intervention of external agencies carrying out Community Led Total Sanitation – CLTS – programmes) actually have become accredited as ODF; and who decides when ODF has been achieved anyway: communities, the triggering agency an independent overseer…?

After discussion it was agreed that as ODF is the central tenet of informed sanitation programmes, then only communities that have been triggered should be included in the sample, if they had subsequently been officially declared as ODF, or if the triggering had failed. However, as ODF requires each household to have access and use to a toilet (which could be their own or a shared facility), then the research needed to incorporate both a questionnaire element and an "inspection" or verification element. On that basis, the Questionnaire for the ODF/HWWS assessment was considerably shorter than that for RWS but was supplemented by a verification visit to be conducted by the interviewer.

There is a less well developed history of conducting such analyses, when compared with RWS sustainability investigations. So the general method and the questionnaire/visual inspection procedure was developed "from scratch" but incorporated the documented experience of Plan Kenya and the CLTS team at the Institute of Development Studies at the University of Sussex, as well as UNICEF itself. The questionnaire and inspection/verification instructions are presented as Appendix 3 to this document.

Questions in respect of hygiene behaviour sustainability are included here. Investigations confirmed that there is but one acknowledged proxy for sanitary hygiene which is of hand washing with soap

(HWWS)[6]. So, relevant questions were added to the ODF questionnaire and instructions added to the inspection/verification guidance for enumerators.

As with the RWS questionnaire, the ODF/HWWS one was administered via the WASH Committee but people identified as CLTS leaders or champions were welcome as indeed was any community member with an interest. Flexibility and community learning were important. The need for the interviewer to talk with children during the "walkabout" was stressed, as s/he would gain confirmation or otherwise of answers previously given, children being acknowledged as being more likely to be honest than adults can be when responding regarding intimate behaviours such as defecation.

So, the questionnaire (see Appendix 3) had three sections:

- Had the community been declared ODF, if so who was the triggering agency, when was the triggering undertaken, and was it ODF now?
- Were households in the community rising up the sanitation ladder?
- Had the community received sensitisation to HWWS?

The visual inspection also had three elements:

- Was the community visibly practising ODF, i.e. did every household visited by the enumerator have and/or use a latrine?
- What was the condition of the latrines visited by the enumerator?
- What proportion of households visited by the enumerator was practising HWWS?

Rural Water Supply and Sanitation & Hygiene Sampling and Field Method

Choosing a sample size is, in effect, choosing a number of observations in relation to the total "population" in an attempt to optimise the applicability of the results. So, in essence, the aim in deciding on sampling was to gain a representative response regarding the sustainability of service provision at rural waterpoints, of the continuity of ODF. "Representative" because there is a wish to be able to draw inferences nationally from the analysis of the surveys.

There were two theoretical entire "populations", being the number of rural communities which have had new or rehabilitated waterpoints within the last five years, and the number of communities which have had CLTS programmes, both across the whole of Madagascar.

In order to gauge the scale of the likely sampling task, a scoping survey of Ministry of Water regional officials was undertaken to see approximately how many waterpoints and CLTS programmes came within the above definitions. The responses were variable and not deemed to be sufficiently robust to consider further in terms of deciding on the principles of a sampling framework.

Subsequently, the Ministry of Water database was investigated with the same purpose in mind. It was known by Min Eau staff that the database was not complete, as it is dependent upon a

[6] These presentations from the IRC WASH Monitoring Symposium held in Addis Ababa in April 2013 are of particular relevance and interest: http://www.irc.nl/page/78738

voluntary submission of data by implementing partners, it certainly under-represents the "population". However, it is felt to be accurate for those areas where data has been provided.

So, having obtained a reasonable basic understanding of the total "population", the next step was to identify how to derive samples. The main parameters which influence sustainability in both RWS and sanitation & hygiene are thought to be:

- The social, financial and cultural nature of communities; there is immense ethnic and economic variability across the country which will have direct impacts upon sanitation preferences, hygiene behaviour and water requirements.
- The environmental context of topography and climate provide a different backdrop for water availability, perceived need for sanitation, and influence poverty, so affecting willingness to pay for WASH facilities and their upkeep.
- Probably more for ODF/HWWS more than RWS… the identity of the implementing agency; as programmatic methods vary significantly between agencies.

It was clear that it would be impossible to cater for this huge variation and produce a stratified sample taking account of all relevant parameters. The goal of sampling is to ensure representativeness and minimise bias though an element of randomness, ensuring practicality and recognising the political realities of being visibly inclusive. However, it is possible to take a snapshot across as many regions as is possible, and sample within each region randomly, to minimise selection bias and so this was the method chosen.

In this way, the sample chosen can be seen to be representative, yet with the randomness required; also, if a variety of the different geographical and cultural parts of the country are sampled as is possible, then it also will have the attraction of visual (therefore political) acceptability.

There is a practical consideration though, in the fact that very large numbers of waterpoints were constructed/rehabilitated in some locations and very few in others. While this does not theoretically require a variation in the sample number between these regions, in practise it does make sense to focus more where greater resources have previously been expended.

The final consideration is the spread of samples within each region. Travelling within Madagascan regions can require huge distances and very lengthy travel times across very difficult terrain. So a balance between practicality and sampling rigour was required as shown below.

Sampling RWS Communities

On this basis, it was proposed to conduct interviews that the WASH Committee in fifteen communities in ten out of the22 regions of Madagascar, giving 50 in total, which would be of the order of seven per cent of all waterpoints in the target "population".

As noted above, the initial selection of communities was random in each chosen region. So if Region X had 300 waterpoints constructed/ rehabilitated in the last five years, and as we wished to interview in 15 communities, then randomness was obtained by selecting one in twenty sequentially from an alphabetical list of relevant communities.

The chosen list was then scrutinised for practicality. There were instances where it was simply impractical to travel the distances through extremely challenging terrain – it could take two days to reach some communities selected. So, these were replaced by communities as near to the initially chosen location as was possible.

Sampling CLTS Triggered / Open Defecation Free Communities

It is the nature of rural WASH programming in Madagascar that sanitation and hygiene programmes carried using CLTS methods are not always undertaken in alongside those for water supply (and some programmes where water supply was provided did include sanitation and hygiene but not using methods designed to achieve ODF through CLTS).

There was nothing that intrinsically should militate against both surveys being done in the same location but, in the event, this did not happen often, particularly as the same randomness was aimed for in this instance too.

Additionally, the Min Eau database had large gaps in terms of regional representativeness, so data was sought from the larger implementing organisations (USAID, WaterAid, the WSSCC Global Sanitation Fund programme, as well as UNICEF) in an attempt to infill. The data so provided was for communities where triggering had been carried out, and often it was not known, or had not been recorded whether or not this triggering had resulted in ODF adoption/declaration.

This is not an ideal point from which to conduct sampling, and cements the desire to enhance the S&H database n the Ministry, with the necessary co-operation of all implementers.

Chosen Sample Framework

The consequent adopted RWS and CLTS/ODF sample framework is as set out in Table 3. It can be seen that, in the case of some regions, communities were sampled despite there being no data in the central database. In these instances, the selection was made from organisations' own programmatic records.

In overall terms, while preserving randomness and so eliminating selection bias was the ultimate aim, a combination of lack of sufficient and consistent data on the one hand, and the practicality of negotiating Madagascar's complex topography on the other, rendered this less easy. Nonetheless, it is felt that this sample, and its distribution, represents as good a selection as can be currently made.

Table 3: Sample Framework

Region	ODF / HWWS			RWS		
	Communities in database	Agreed Sample	Actual Sample	Communities in database	Agreed Sample	Actual Sample
Analamanga	66	15	**15**	22	12	**12**
Analanjirofo	1091	15	**14**	100	12	**14**
Androy	5	0	**0**	0	11	**11**
Anosy	0	0	**0**	0	12	**8**
Atsimo-Andrefana	205	15	**13**	161	12	**12**

Region	ODF / HWWS			RWS		
	Communities in database	Agreed Sample	Actual Sample	Communities in database	Agreed Sample	Actual Sample
Atsimo-Atsinanana	34	0	**0**	1	0	**0**
Atsinanana	55	15	**14**	0	12	**5**
Betsiboka	0	0	**0**	53	0	**0**
Boeny	41	15	**14**	109	12	**11**
Bongolava	0	0	**0**	41	0	**0**
Diana	0	0	**23**	171	12	**30**
Haute Matsiatra	110	15	**15**	65	12	**13**
Ihorombe	0	0	**0**	160	12	**12**
Itasy	20	0	**0**	63	0	**0**
Melaky	0	0	**0**	52	0	**0**
Menabe	6	11	**10**	0	11	**11**
Sava	0	0	**0**	0	0	**0**
Sofia	90	15	**7**	338	12	**20**
Vakinankaratra	382	15	**19**	121	12	**13**
Vatovavy Fitovinany	159	15	**11**	410	12	**14**
Totals	**2264**	**146**	**155**	**1867**	**166**	**186**
Sample		**6.3%**	**6.8%**		**8.6%**	**10.0%**

Piloting and Conduct

It was initially envisaged and agreed that staff from the Ministry of Water in Antananarivo would travel to the regions and work with regional colleagues to implement the fieldwork. In a small number of regions this would be replaced by UNICEF or WaterAid staff leading, supported by regional staff from the Ministry. This set up allowed for the team that was engaged in discussing the questionnaire development as it emerged, and which was engaged in the development of the sampling framework as it emerged, also to be at the heart of the data gathering process. They had received on-the-job training as the process unfolded. Indeed it was this team which went to Miarinarivo Sud, some fifty kilometres north west of Antananarivo in Itasy Region, on 11th October to undertake the questionnaire pilot.

Both questionnaires were piloted that day, having been translated into Malgache and having been supplemented by comprehensive guidance notes for enumerators/interviewers (see Appendix 2 for the RWS Guidance Notes and Appendix 3 for the ODF/HWWS notes, in both cases provided after the relevant questionnaires). No major glitches were found with the questionnaires or the verification instructions and so only minor changes were made before these declared to be finalised.

Just before going to the filed it was decided that there should be a change in the staffing arrangements for the fieldwork, and that the teams should be led from the regions, without the inputs of central Min Eau staff. This led to a hasty rewriting of schedules and financing arrangements for the fieldwork thereby creating some delay but also meant, more importantly, that the staff that went to the field had not been engaged in the process and had not received training in the questionnaires and their basis. However, as the questionnaires were simple, if lengthy, and as written Guidance had been provided, the impact on quality of output is not felt to be serious.

The timing of the first round of the Presidential Election on 25th October also created further delay in the fieldwork, and so, the fieldwork was conducted starting on 1st November and ran for some three weeks, concluding towards the end of the month, before the rainy season commenced in earnest and so before travel became difficult or impossible in some locations..

WASH in Schools and WASH at Health Centres

There were two significant deviations from the Terms of Reference; these were agreed upon with UNICEF and other relevant bodies as the project evolved, as follows:

- After a number of discussions with staff of the relevant sections of the Ministry of Education it was decided and agreed with Ministry staff that the WASH in Schools sustainability assessment would be rolled into the periodic survey of schools being instigated by that Ministry. As an aim of the study was at least implicitly to have Ministry "buy in" to this process, this development was viewed positively. The situation will need to be reviewed to ensure that the surveys do actually take place including the WASH questions. A questionnaire for WASH in Schools had already been produced by the stage that this agreement was reached (in November 2013) and was handed over to Ministry of Education staff for their usage. It is reproduced as Appendix 4 to this report.

- The analysis of WASH in Health Centres is provided through a system of accreditation known as *Amis de WASH*, which is overseen by the Ministry of Health. This Ministry has developed a review process; so it was decided not to proceed with this element of the programme.

3. Rural Water Supply: Results and Commentary

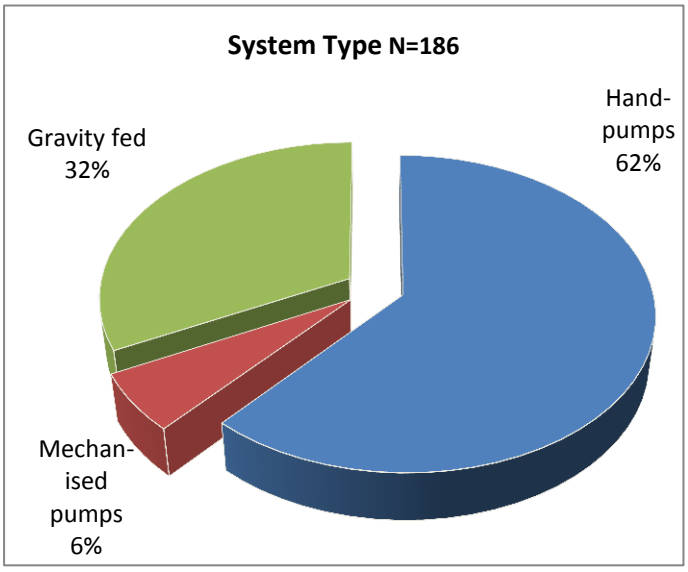
Introduction

In this Section, the analysis of the responses to the RWS questionnaires is provided. In general this is using a simple tabulation of each answer in turn; but some cross tabulations of answers has been undertaken where this sheds additional light on the information within the dataset. Commentary is provided alongside the analysis of the results.

The total number of usable questionnaires returned by the enumerators was 186, as can be seen in Table 3, in the previous section. However, the total number of answers for each question may be lower, where the interviewer failed to obtain a response, or an illogical or invalid response was filled in, in which case the relevant response was deleted during the course of data cleaning. For each item in the analysis therefore, the number of observations upon which the analysis is based is provided (e.g. N=176).

Water system technology and functionality

The systems used in the communities surveyed are shown here, with just under a third being gravity fed systems, while the remaining two thirds being pumped systems, mostly handpumps.



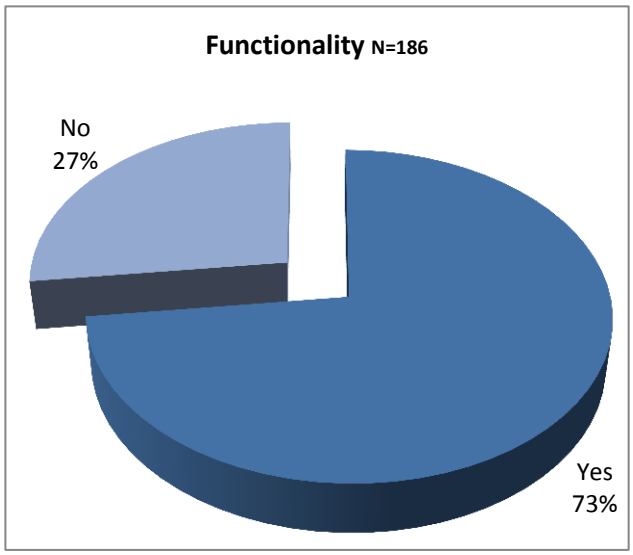
Of the 186 communities, twelve (6.5%) had some household connections; the remainder were communal in nature.

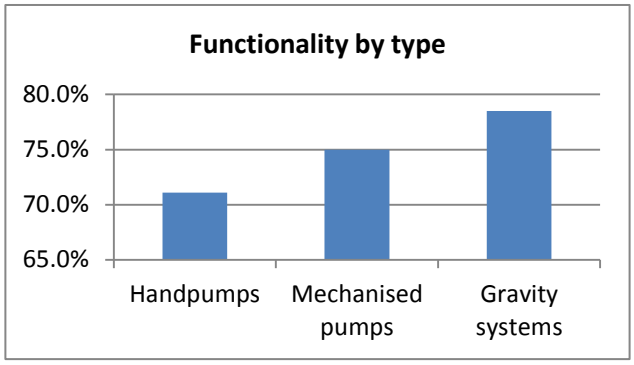
We did ask how many waterpoints there were per system but the results were not reliable, probably due to confusion in translation of the term waterpoint into Malgache.

The average age of the systems was five years and 28.5% of them had been rehabilitated at some stage; the average age of rehabilitated systems was 7.5 years, while that for systems which had not been rehabilitated was 4.2 years.

Note however, that it had been decided to conduct surveys of systems which had been constructed or rehabilitated in the last five years. So this age range is not likely to be representative of all systems nationally, but these results are presented to show that the age sampling was successful.

As can be seen overleaf, the proportion of systems which were functional on the day of the survey was 73%; this is in line with experience in rural areas in Sub Saharan African countries, although it is a higher figure than was expected by many. However, while useful as a headline indicator, there are more illuminating ones as is discussed later at length.





There was a slight variation in functionality by technology (see graph below but note that for visibility purposes, the vertical axis is not set to zero), with handpumps (N=121) showing the lowest functionality levels at 71%, and gravity systems (N=65) highest at 79%.

Only twelve sites were sampled that had mechanised pump systems, so this functionality finding (75%) should be treated with caution.

The total number of observations (198) exceeded the number of communities (186) as some communities had more than one system.

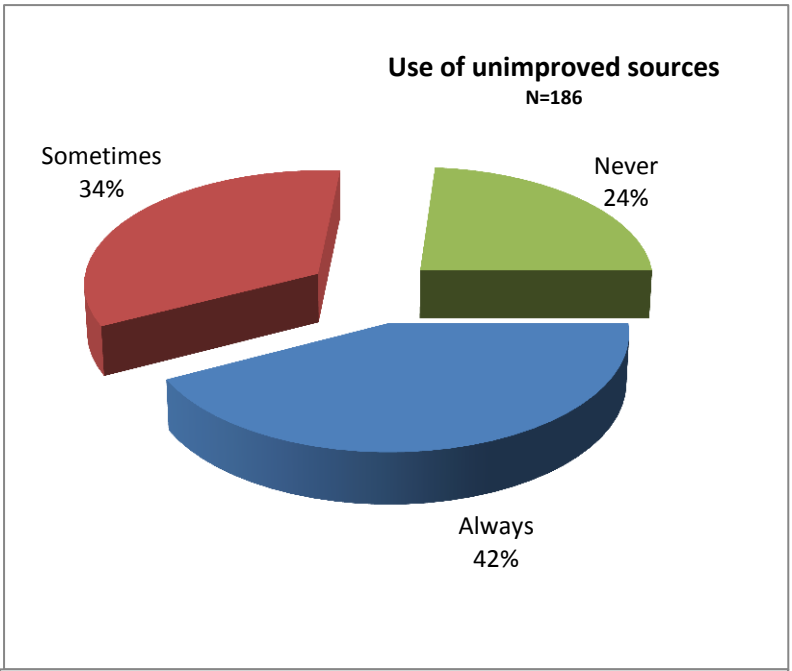
While sub-dividing responses has its hazards in terms of reducing validity, the functionality figures by region are shown in Table 4 below.

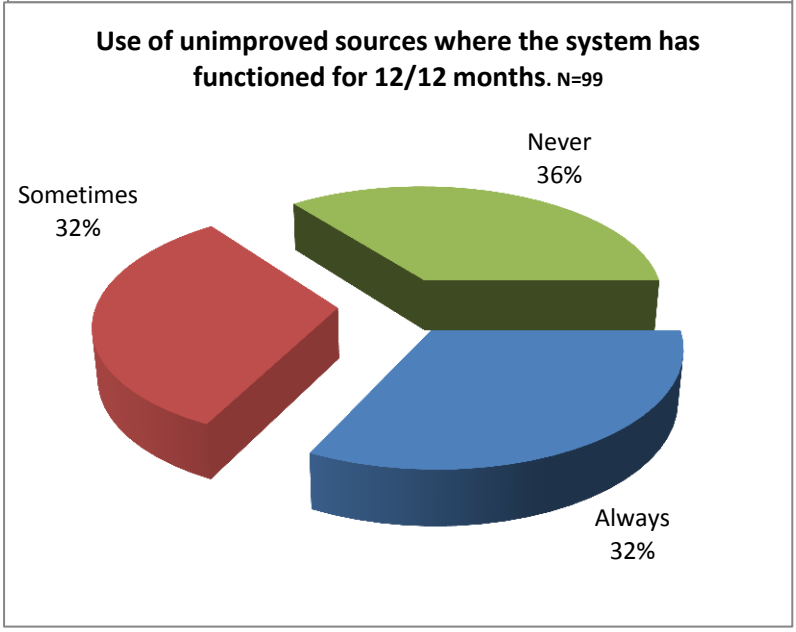
Table 4: Functionality of rural water systems by Region

Region	Functionality %	Region	Functionality %
Analamanga	83	Diana	83
Analanjirofo	64	Haute Matsiatra	64
Androy	82	Ihorombe	75
Anosy[7]	50	Menabe	73
Atsimo Andrefana	92	Sofia	75
Atsinana[7]	80	Vakinankaratra	85
Boeny	36	Vatovavy Fitovinany	57

It is usually imagined, or probably rarely questioned, that if a community has access to a functioning water system, then everyone would use it. However, when asked does the community ever use unimproved sources, the responses showed that they do, and quite clearly many do, even when there is a system providing what should be safe water.

[7] Low sample (less than ten observations).





The first chart here indicates that there is always some usage of unimproved sources in 42% of communities, sometimes in a third of them. Only in a quarter of communities does this never take place.

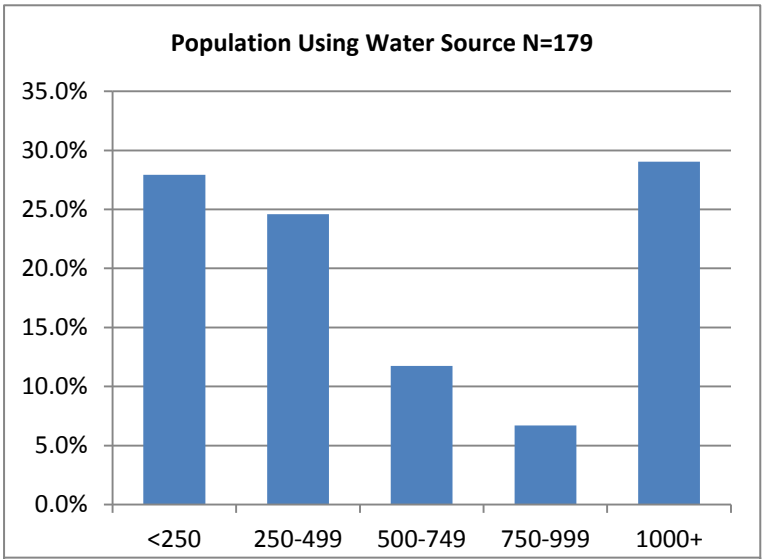
Of course this does leave open that unsafe water may be being used for washing clothes or for people washing themselves, or for watering crops.

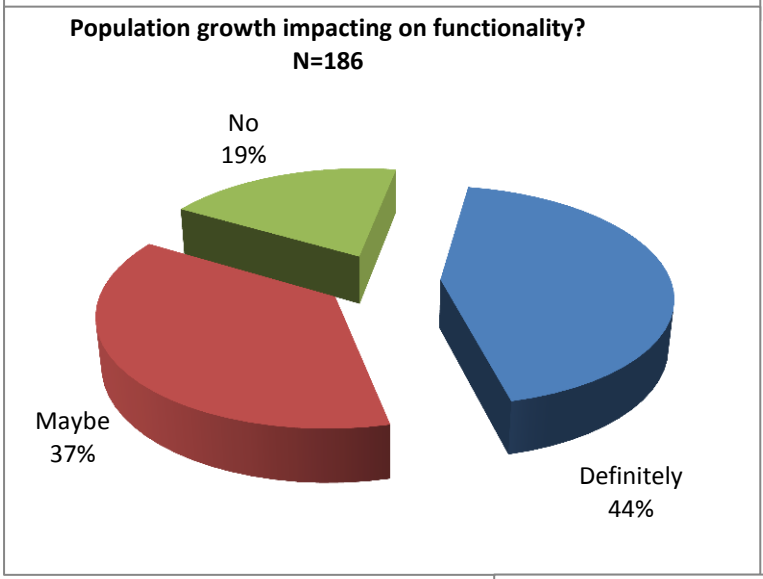
It could be that some community members cannot afford to buy all or some of their water, or are too distant from the waterpoint to collect all or even some of their needs, (or some combination of these) for the waterpoint to be advantageous to them.

In the section later in this Chapter, on Maintenance, figures are provided for how many months in the year each system had been functioning. So, it was possible to find out whether or not people still accessed unsafe water in communities where the system providing safe water had been functional all year. The chart above shows that they do, although to a slightly reduced extent than for the general sample.

It would be useful, in future surveys, to ask a follow up question about the usage of water drawn from unsafe sources, in instances where safe water appears to be available. Either way, it does indicate that “simple” access does not equal usage; that the issue of providing a service to meet the various needs of different people is far more nuanced and complex.

Population and accessibility



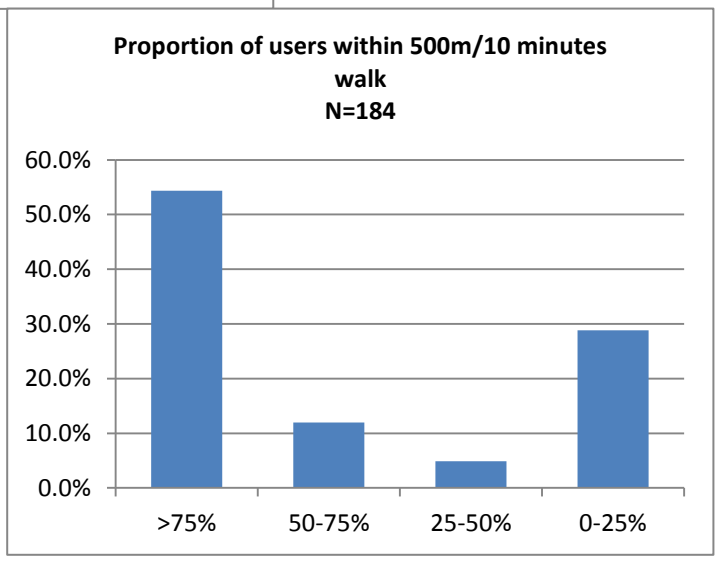


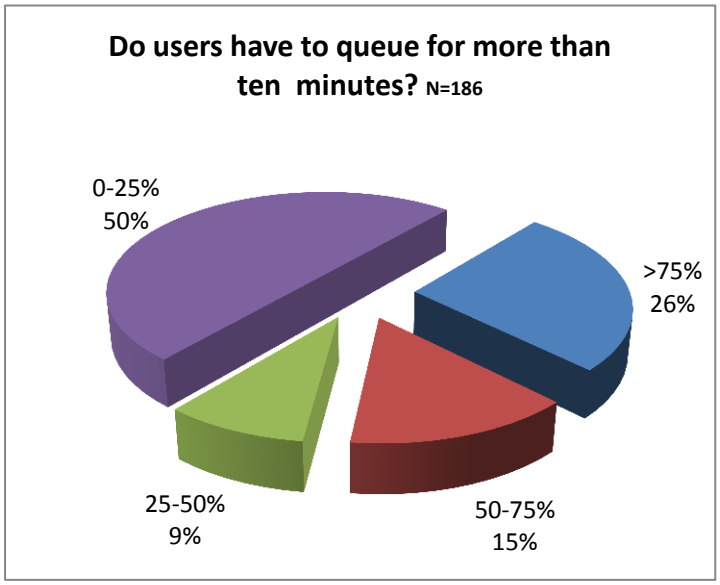
The size of the communities using the various water systems varies hugely, with a quarter being less than 250 people, but, likewise, a quarter being in excess of 1,000, see the first chart overleaf. It has already been noted, in Chapter 1, that rural population growth is proceeding apace in Madagascar, so the answer to the question, is population growth impacting on systems and their likely durability is not surprising.

While some caution should be exercised when reviewing answers to questions like this, there is no doubt that the answers to these two questions in combination show the extent of a current and future problem for existing infrastructure and service provision.

It would appear that even where communities appear to be served there is an under provision of waterpoints. As further evidence, in a related finding, it can be seen that just over half of the communities surveyed said that more than 75% of the populations surveyed were within 500m (or ten minutes' walk) of their water supply.

However, some 29% of communities indicated that only a quarter or less of their population had this proximity of access.

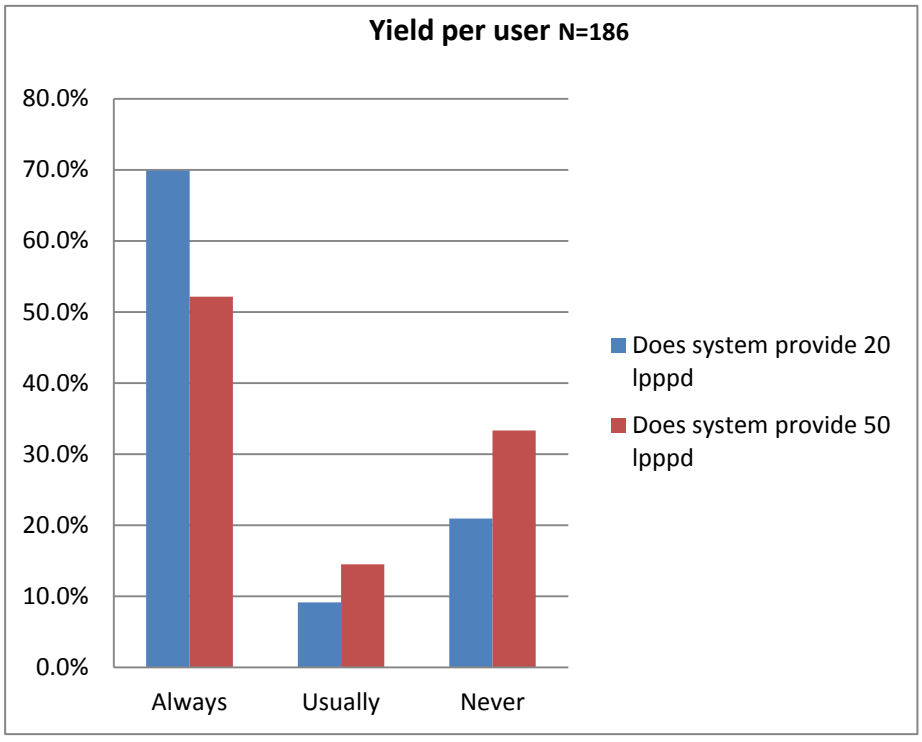




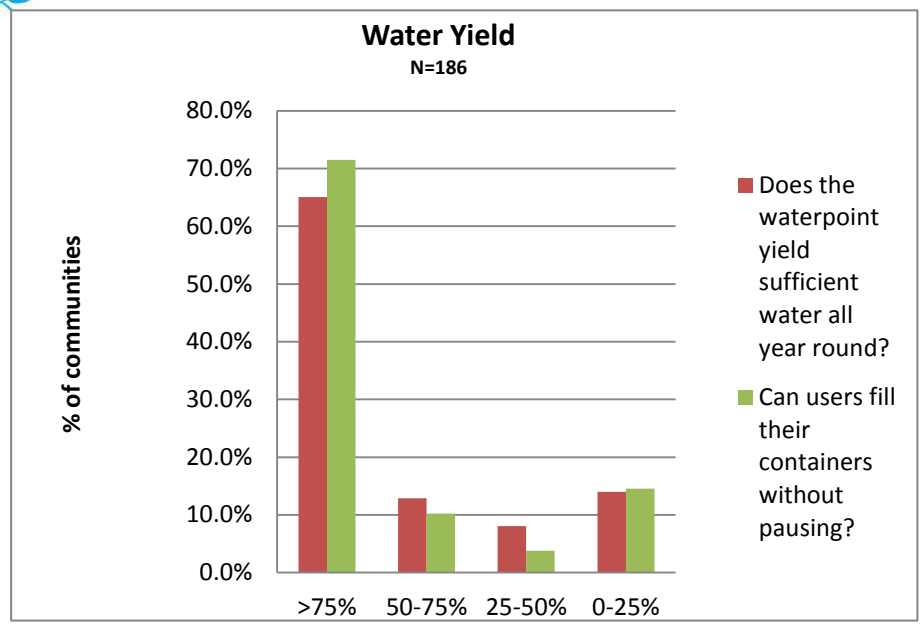
Finally, on this issue of accessibility, communities were asked about queuing times at waterpoints. In 50% of locations, users indicated that they had to do this on less than a quarter of occasions; but in 26% of locations, this rose to over three quarters of the time. This points to an issue of over-usage, confirming likely over use of some systems. Of course, where systems are overused this will have a dual impact: forcing some people to revert to unsafe sources for at least some of their needs, as has been reported in this section, but also putting pressure on the infrastructure and causing early failure.

Water quality and quantity

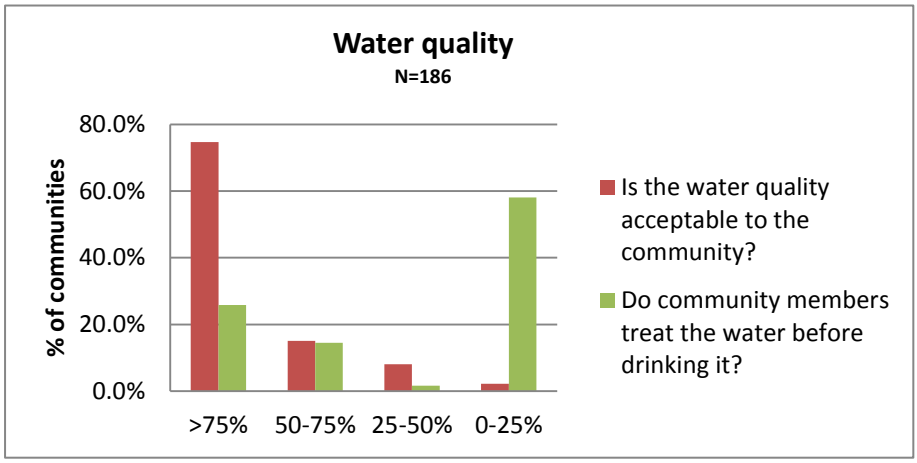
The current WHO guidance (REFERENCE NEEDED) stipulates that everyone should be able to use a minimum of twenty litres a day for their absolute basic needs of drinking and food preparation, with some for personal hygiene but that this should rise to fifty litres to allow for more adequate amounts for the key uses.



The chart here indicates that such 20 litres per person per day (lpppd) was consistently available in around 70% of communities, while the higher level in about half. The basic level of 20 lpppd was found not ever to be available in a fifth of all communities surveyed, pointing again to a low level of service for community members, even where they have access to safe water.



Communities were two other questions regarding the service levels they obtained. Two very clearly highly correlated answers are shown in the graph here. Firstly, on what sufficiency of provision, it can be seen that in about 65% of communities, sufficient water was provided for 75% of the time or more, while in some 25% cases (combined two columns) this only occurred for less than half of the time. A similar result was obtained for the ability of users being able to fill the containers without pause.



On the issue of water quality, it can be seen from the graph here that a high level of acceptability was found, with around 75% of communities finding their water taste and colour acceptable for over 75% of the time. No water testing was carried out as part of this study; these responses therefore relate solely to user perceptions.

Despite this high level of acceptability, still there was a reasonable level of treatment before drinking, with more than a fifth doing so in over three quarters of locations surveyed.

Environment

There were two questions under this banner; these related to the distance of water points from toilets and other potential sources of pollution. On the first, it was found that the waterpoint was sufficiently distant from toilets in nearly 90% of cases – enumerators were briefed about requisite distances upstream, and asked to do a visual check before filling in the community response. This can therefore be considered a satisfactory response.

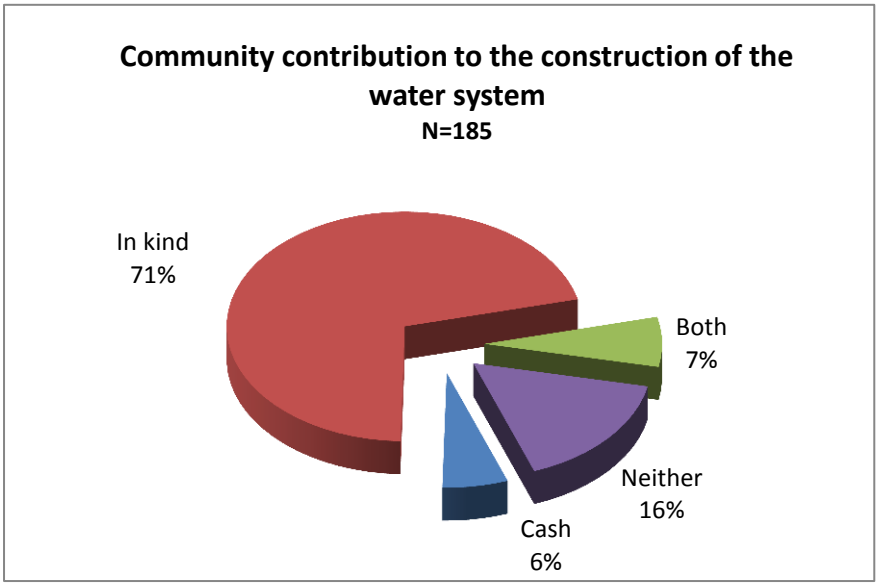
The second was in relation to the potential for animal effluent or industrial emissions. Here the response was not as positive, with exactly one third of communities reporting that the waterpoints

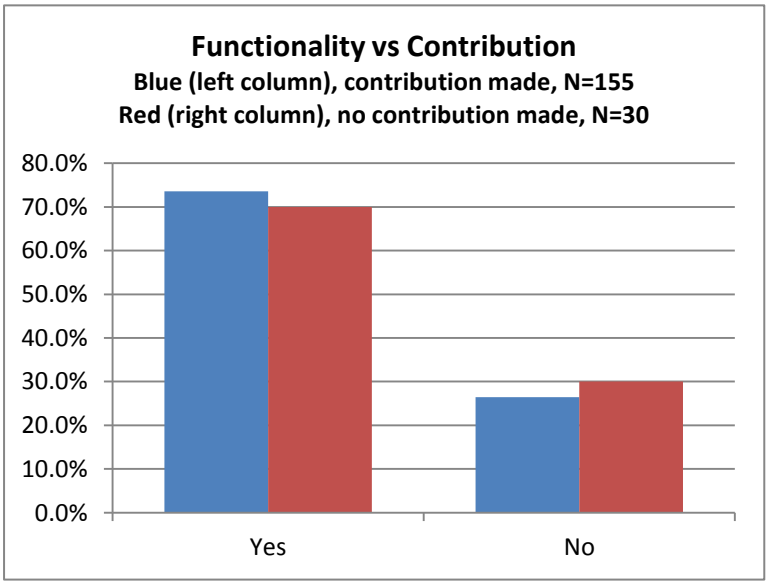
and/or sources have the potential to be affected in this way. The photos provided by enumerators (REFERENCE) do show many waterpoints unfenced and therefore open to animals gaining access.

Finance

Questions asked in this section related to contribution to construction and tariff; further questions in later sections refer to the issue of readiness to contribute to heavy maintenance and system renewal.

Communities were asked whether or not they had made a cash or in-kind contribution to the construction of the water system; it is customary to view this as important in generating community ownership of their systems, and therefore facilitating a greater likelihood of ongoing maintenance. The above graph shows that, indeed, this was the case in 84% of cases, but still a 16% response indicating that no such contribution was made is higher than might be expected.

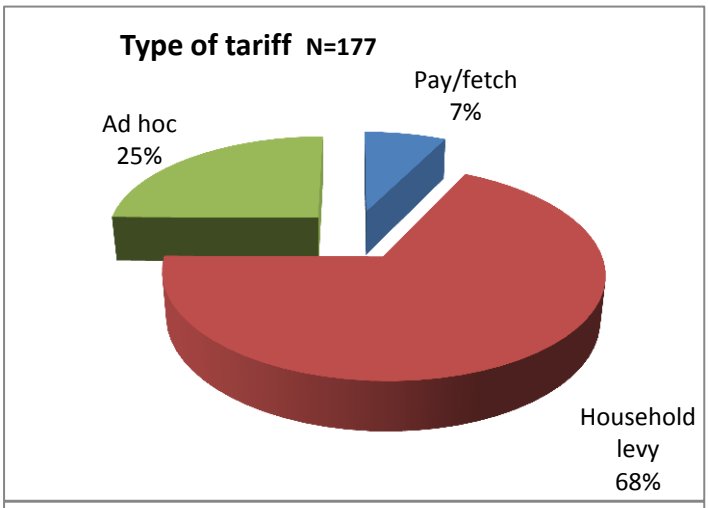


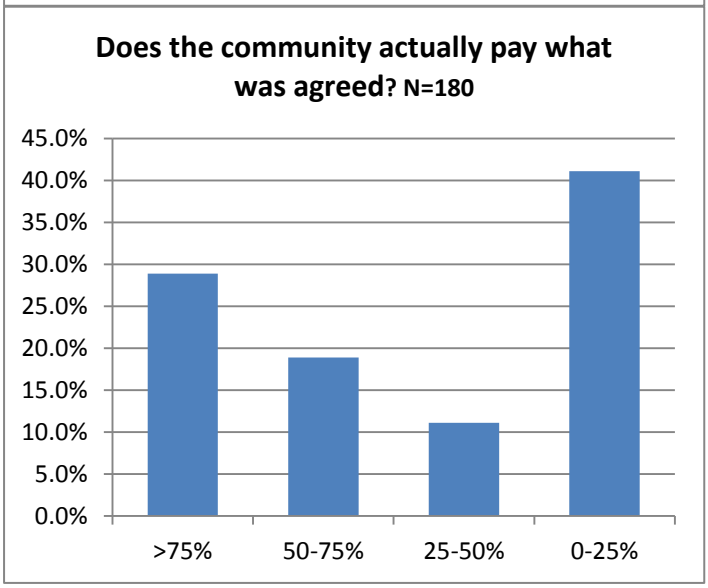


A check was made on what impact this lack of contribution may have had on functionality and the result is shown; while the functionality is slightly lower for those who did not do so, this is not significant. While a contribution is no doubt welcome, particularly in providing labour for the construction of new systems, the issue of implied ownership of systems and therefore greater sustainability has limited evidence, certainly on the basis of this data.

One of the biggest hurdles in financing systems, and therefore in ensuring ongoing service delivery, is that of financing post construction costs. It is usual to highlight the issue of tariffs, as they are seen usually as the only means of providing for ongoing operating and maintenance (O&M) costs (although the consideration of the coverage of heavy maintenance and replacement is also a major

issue, but is dealt with under the *Maintenance* section). So, first up, communities were asked if they had agreed to pay a tariff to cover O&M costs. It is interesting that 81% of communities indicated that they did so; meaning that nearly a fifth didn't. In the absence of any external support for O&M, this would represent a poor start for any community.





However, this may well be a matter of language as they were also asked what sort of tariff they paid. As can be see here, a quarter of communities pay ad hoc; probably meaning that there is no agreed tariff but they do pay when needed.

It is certainly good practise for communities to be asked to agree a pay per usage or household levy tariff, in order to build funds for the day when a part is needed

Communities were then asked if they actually paid the tariff that they had agreed. The fact that 180 communities answered this question means that this was correctly interpreted as including ad hoc payments. As can be seen below, only 29% of communities actually indicated that they pay 75% or more of what has been agreed, with more than four communities in ten saying that they paid less than a quarter of the agreed amounts.

Only in a very few cases were those who did not pay excluded from accessing the system, , 60% of communities indicating that this happened if at all, the remainder indicating that it happened sometimes.

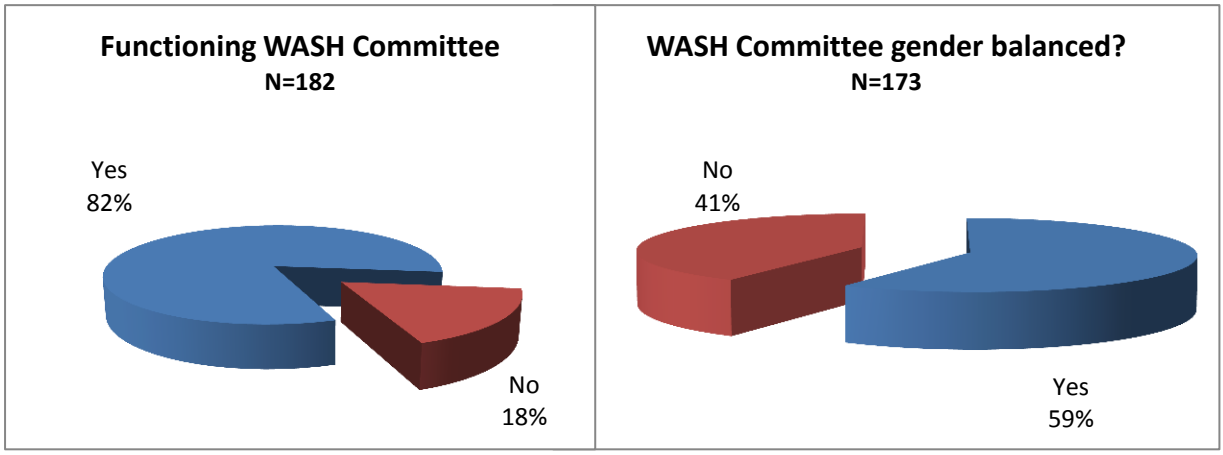
The poverty of people in rural Madagascar is the factor here; clearly people much of the time can simply not afford to make tariff, levy or ad hoc payments of this kind. The sequence of consequent events is likely: there is insufficient O&M taking place, so as systems get older (and as more pressure is placed upon them) then more will fail. There will not be enough in the pot to undertake the necessary further maintenance and a vicious cycle will follow. Sector funders in Madagascar are going to have to decide on how to confront this crucial issue.

Community management and structures

A great deal of time and effort has been expended on the issue of setting up WASH Committees in order to act as overseer of the management of WASH services in rural communities, and of

waterpoints in particular. The first graph below shows that a WASH Committee does indeed exist in over four out of five of the communities surveyed, still leaving a sizeable proportion without a Committee and therefore, presumably, without any means (except ad hoc) of resolving WASH service delivery issues.

Crucial issues in terms of the success or failure of WASH Committees are seen to be (particularly) its gender balance, its composition as against expectations, and the training that its members have received. Around six in ten had an acceptable gender balance (enumerators were asked to prompt that this would be around a fifty-fifty balance of genders), while 71% answered affirmatively that the Committees had the requisite number of members and that they had received the necessary training.

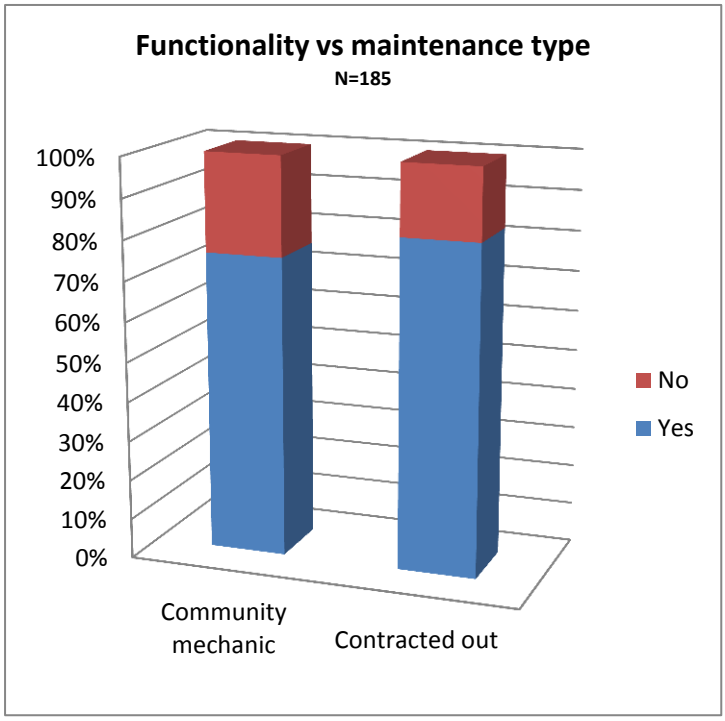


Maintenance

Because generally communities have insufficient resources to be able to buy in what support they need, and as implementing agencies do not have the resources or set up to be able to provide it, it is usually been left to them to address their own maintenance requirements, with or without the support of an external agency. The related issues of maintenance, supply chain and institutional support to communities are therefore seen as pivotal in sustaining service provision. They are now dealt with in turn.

Each community was asked if they had either a trained mechanic to deal with routine maintenance of their system/s, or if they had contracted this out to a local private sector service supplier.

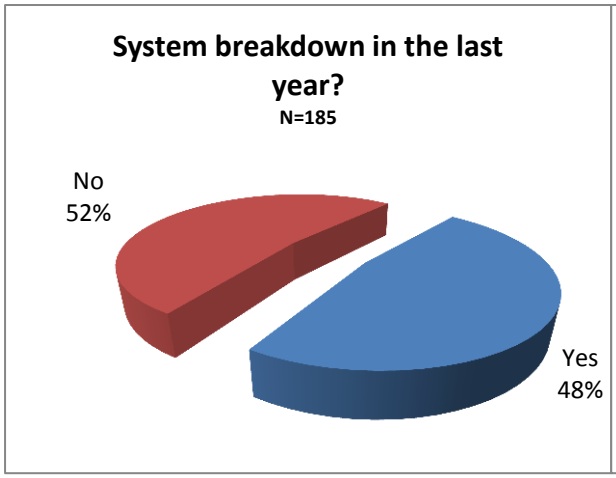
- In 70% of cases, the community had a trained mechanic.
- In a further 18%, light maintenance had been contracted out.

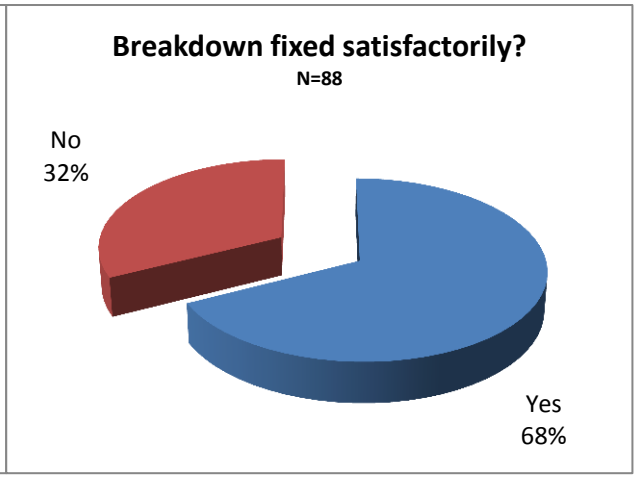


The first observation therefore is that in 12% of cases, no provision for routine maintenance appears to have been made; therefore an ad hoc response is required.

A question arises as to whether there is a difference in functionality between these methods of maintenance. A slightly higher rate of functionality (see left) can be seen in instances where routine maintenance had been contracted out (82% to 75% - these both being higher than the overall functionality average of 73%, which incorporates those locations where no responsibility for maintenance has been agreed).

In order to explore the issues in more depth, respondents were firstly asked if their system had broken down within the last year, and then if the breakdown had been satisfactorily attended to. As can be seen below, nearly half of systems had failed during the previous year and, in nearly a third of cases it had not been satisfactorily attended to.

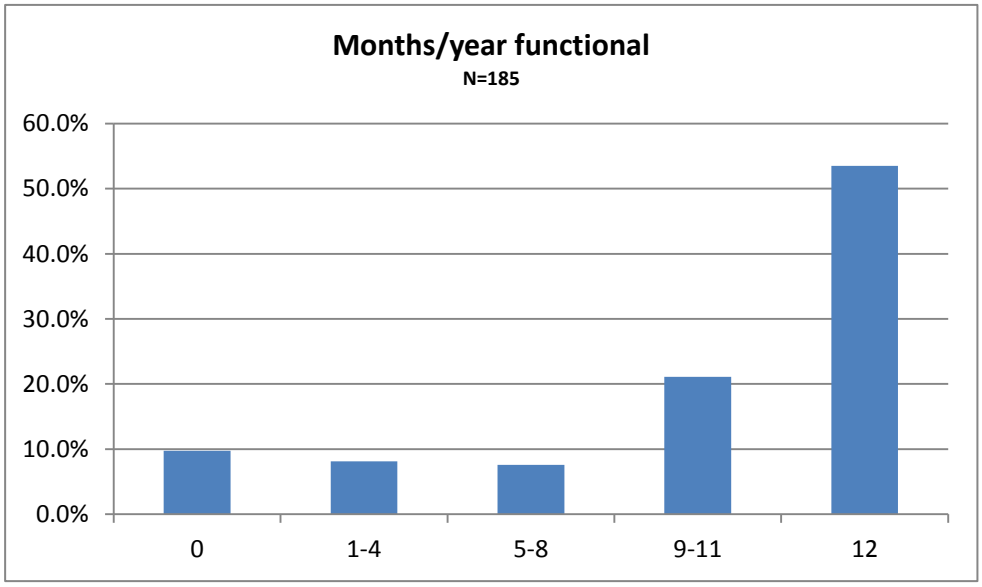




It would have been useful to be able to identify if there was any difference in the maintenance outcome according to whether or not this was done by the community mechanic or if maintenance had been outsourced. However, while this cross tabulation was possible from the data, the number of observations is too few, so the answers are not legitimate.

Even so, there is a more useful and viable item that sheds light on this issue. This is that while many communities have a functioning service on the day of the surveyors visit (the 73% figure quoted

above), does this consistently translate into system "down time"? So, each community was asked to indicate for how many months in the last year their system had been fully operational. There will almost certainly be a significant error in the estimates of respondents, so the answers obtained need to be treated with caution but they are, nonetheless, illuminating.



As can be seen from this graph, just over half of communities had a consistent service, defined as a water system operational for all twelve months of the last year.

A further 21% received a service for 9-12 months. Nearly ten per cent had no service at all in that time. While the dataset does not allow for a credible calculation to be carried out, it can easily be seen that there are, effectively and literally, millions of person years where individuals do not have access to water, when it is felt that they are served. It is this consideration which is more meaningful than bald figures of infrastructure functionality.

Looking at the longer term, communities were asked if they had a plan and method to undertake heavy (unforeseen) maintenance[8], should it be required. Some 71% had no such plan (although 29% saying they had is unexpectedly "high"). They were also asked if they had such a plan for capital replacement. Two thirds said they had not; again the figure of a third saying they had such a plan is unexpectedly high.

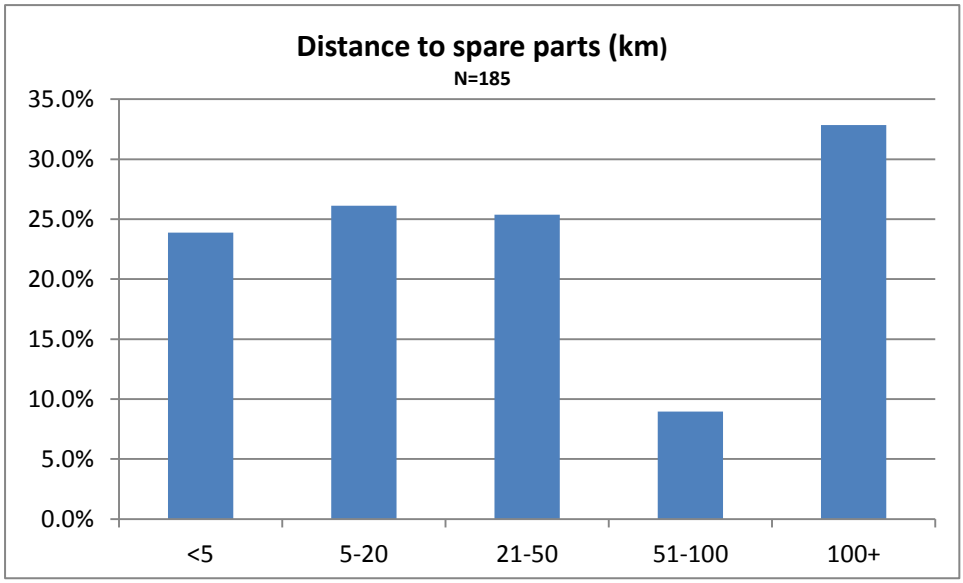
Even so, these are enormously important elements in the spectrum of sustainability of infrastructure and the preservation/enhancement of service levels. While the sector is just getting to grips with these concepts, they need to be taken into consideration in full.

Supply chain

Even with a first rate mechanic, nothing can be done to ensure service continuity if spare parts are not within reasonable reach and are affordable and of reasonable quality. So, community respondents were asked how far they have to travel to buy parts. Again there will probably be significant error in estimates of distance but the results (overleaf) show the great lengths that need to be travelled, not forgetting the inhospitability of terrain in much of rural Madagascar.

The average indicated across the entire dataset is 44km to the nearest spare parts supplier, with nearly 30% indicating they had to travel over 100km.

[8] This is "CapManEx" in WASHCost terminology

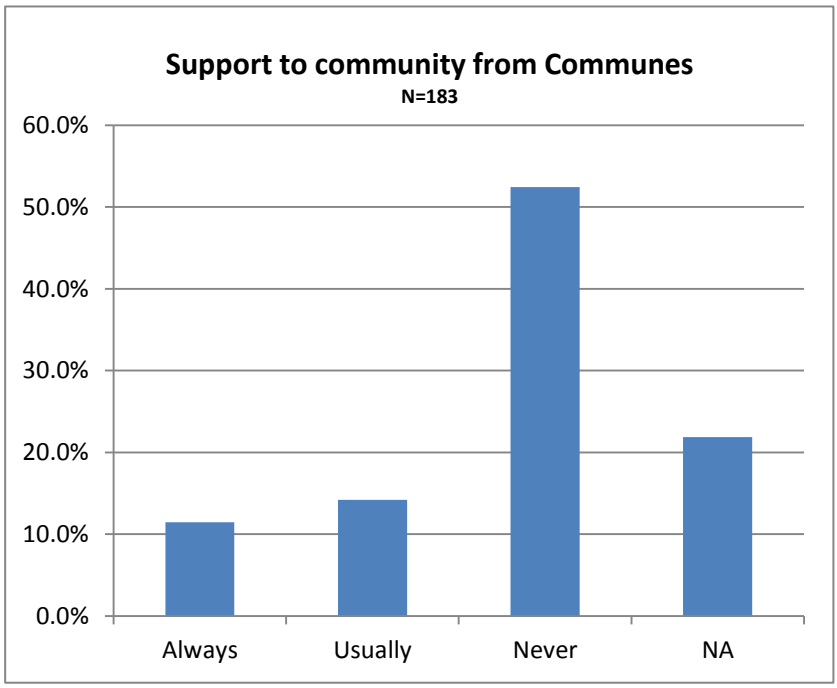


Even on getting there, parts were seen as affordable by only 62% of respondents, and they were only seen as of sufficient quality by 61%.

Institutional support

Surveys of this nature tend to start on issues of technology and range through finance and community management before ending with community support. This is no exception. But it probably should be in complete reverse because we have seen that the community is generally simply is unable to guarantee an appropriate service level in the absence of support from external agencies. So, the questions relating to such support are almost the most important but come last because the sector has only just recently become aware of the need.

So, communities were asked is there a contract or MoU between themselves and Communes (the unit of local government in Madagascar) which specifies the latter's responsibilities when there is a breakdown that they cannot fix themselves. Only 12% indicated that they had such an agreement.



The community was then asked does the Commune actually supply support to the community when there is such a significant breakdown. The responses are shown in this graph, from which it can be seen that a positive response is obtained a maximum of 25% of the time. The "not applicable" response (NA) is included in the graph as it indicates where this is not contracted and/or expected. So, in 75%

of all such instances, communities in Madagascar can expect no support from their local government in the event that they have a significant problem with their water service.

It is this which probably provides the most worrying outcome from the survey. While there is a reasonable rate of functionality in equipment that has been installed and/or rehabilitated in the last five years, there is little that communities can do when things start to go seriously wrong.

4. Rural Sanitation and Hygiene: Results and Commentary

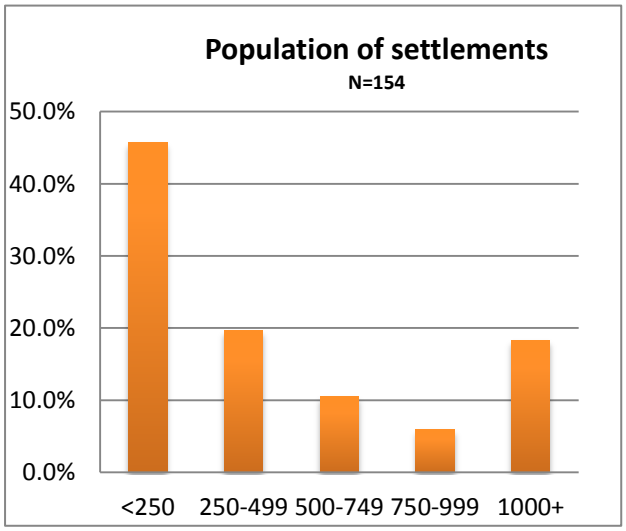
Introduction

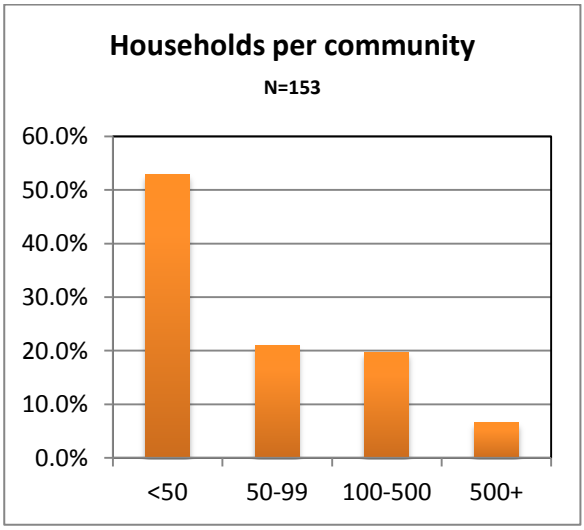
In this Section, the analysis of the responses to the sanitation and hygiene questionnaires is provided, along with the analysis of the enumerators' perceptions of each community during the "inspection" element of the visit to each community. As with the RWS analysis, in general, the analysis has been carried out using simple tabulations of each answer in turn; but some cross tabulations of answers have also been undertaken where helpful. Commentary is provided alongside the analysis of the results. There were 155 usable questionnaires returned by the enumerators, see Table 3 in Chapter 2. However, the number of observations for each tabulation is shown as this may be less than the total if the enumerator failed to gain a response, or if there was an error and so was deleted in the cleaning phase.

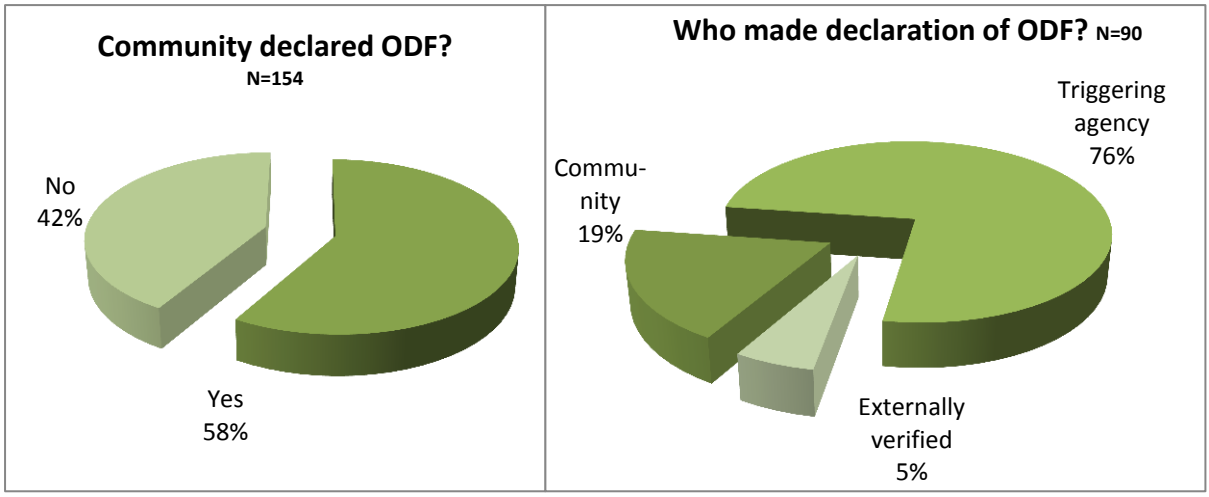
Before proceeding to present the answers, it is necessary to note that this survey was methodologically more challenging than that for RWS. While the latter sub sector has moved on from simply addressing infrastructure functionality to consider wider service provision issues, still it is usually the presence or absence of functioning communal hardware that frames the questions, the responses and the subsequent analysis. In the case of sanitation and hygiene, the subject matter is the ownership and usage of a piece of hardware used for bodily functions, and the behaviour and perceptions of individuals in areas of intimate behaviour. People are more likely to be less honest and/or to provide the answer they feel they should in such circumstances. So, the responses may require a greater degree of latitude than is the case in the RWS section.

Questionnaire responses

The first part of the questionnaire addressed the community itself and whether or not it had become Open Defecation Free (ODF). While the average size of communities was not small (around 770), the distribution was skewed around small communities and larger ones; see below. More than half of the communities surveyed had fewer than fifty households. This may be a function of the relatively small scale of CLTS interventions?



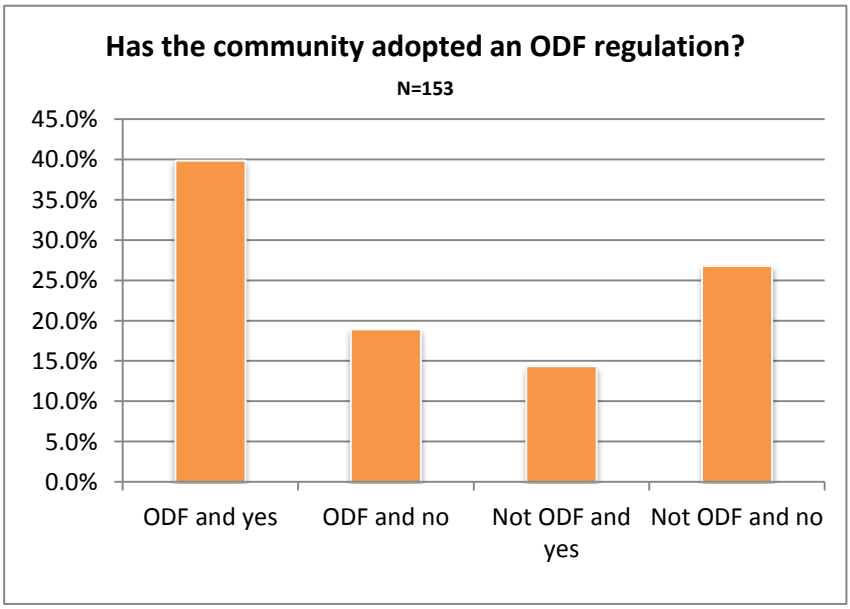


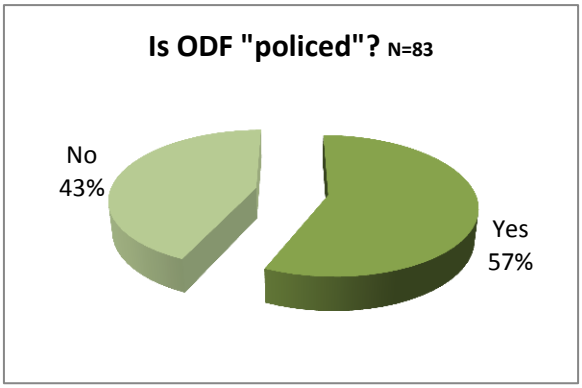


Every community that was surveyed had been listed by the Ministry of Water, or by leading implementers, as having had a CLTS project undertaken, i.e. that triggering had been undertaken in every one. However, triggering does not necessarily result in ODF being achieved, although that is its principal aim.

So, as can be seen above, 58% of communities that had been triggered were indicated by respondents to have achieved ODF post triggering. Of the ninety communities that had done so, just over three quarters had been declared to be ODF by the agency which implementing the triggering, as against less than one in five which had been declared by the community itself and the small number of independently verified outcomes.

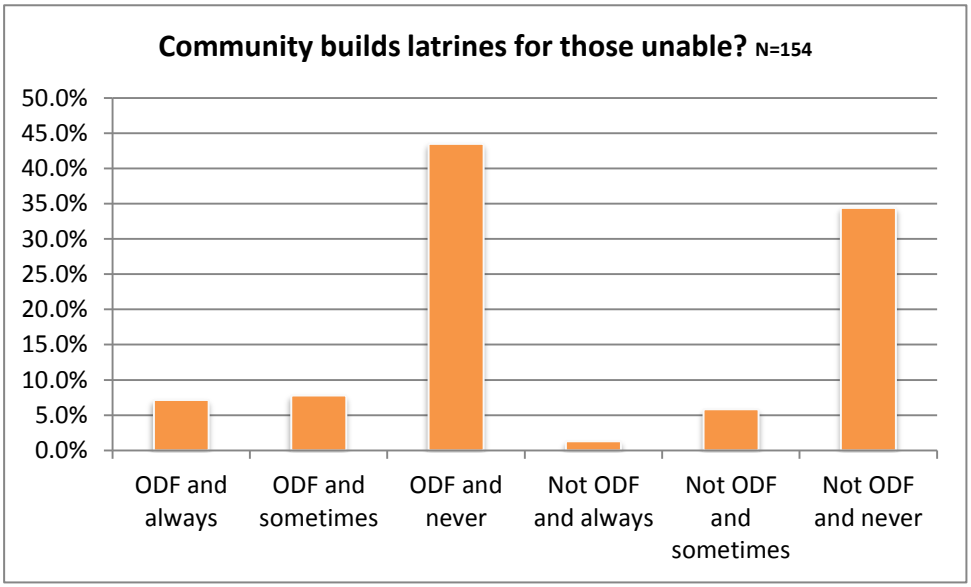
The important issue with ODF is whether or not what has been triggered continues into the future. One indicator is whether or not ODF communities adopt a regulation that declares that all who live and visit their community must not practise open defecation. As can be seen here, 40% of communities had declared ODF and had adopted such a regulation, while 14% of communities had had been triggered but had not declared ODF and had still adopted such a regulation. In the meantime, 19% of communities had declared ODF but had not adopted such a regulation; the remaining 27% had neither declared ODF nor adopted such a regulation.

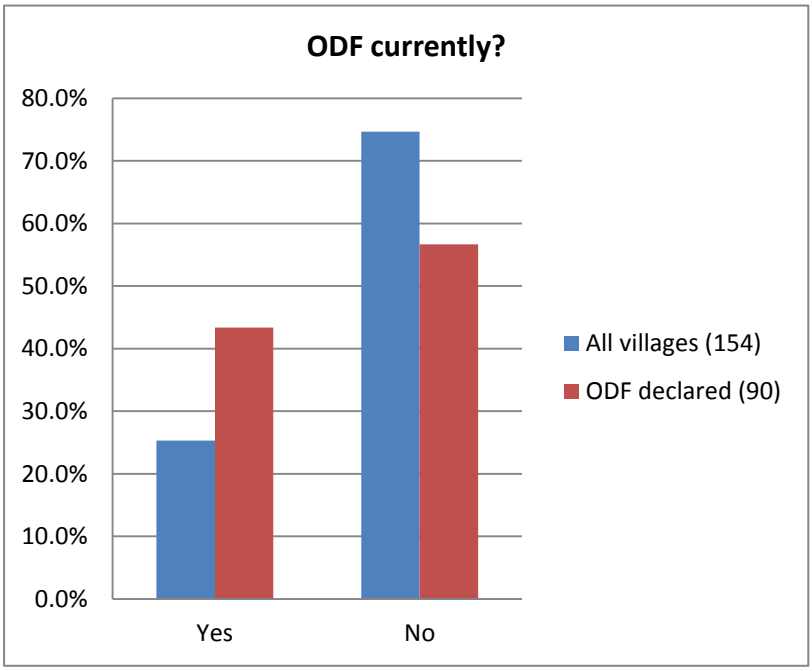




The implication of these findings is that triggering has a very low success rate and that the adhesiveness of ODF is unlikely to be high, if the non-adoption of community regulation is a guide. One further interesting indicator of the latter is whether or not the WASH committee and/or the wider community actually actively "police" and enforces no OD. It can be seen that his happens in only 43% of cases.

In some communities, motivation for ODF is so high that community members actually construct latrines for community members who are unable to do so themselves; these could be single women headed households, elderly people, or the ultra-poor, for example. The graph here shows that this does happen, albeit very rarely, in triggered non ODF communities only slightly less than ODF declared ones.

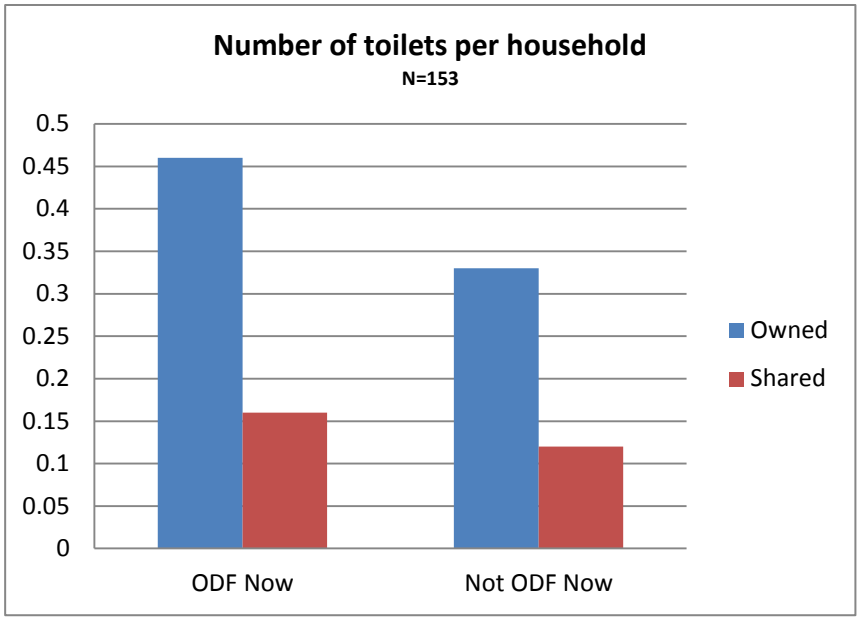




The most telling indicator of sustainability is whether or not those villages that had declared ODF remain so. The chart here clearly shows that there are mixed results at best.

Of those communities which had originally been declared ODF, some 43% of communities still are, while only exactly a quarter of all communities that were surveyed indicated that they were ODF at the time of the survey.

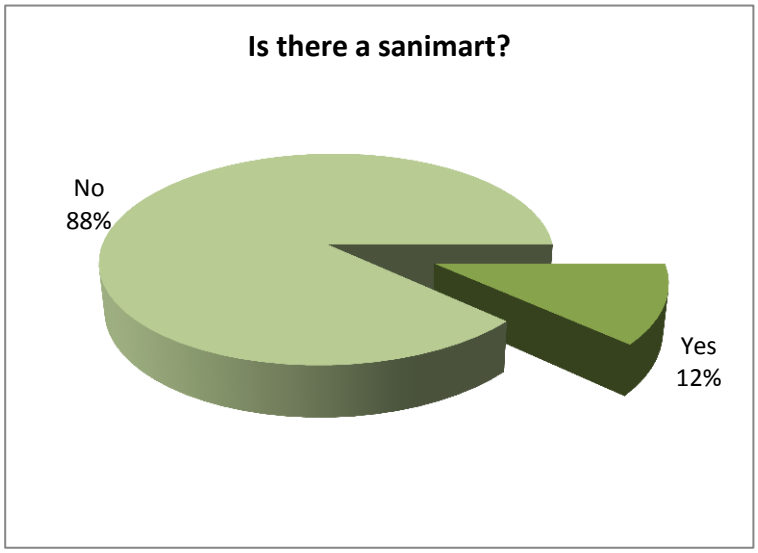
Then, in an attempt to triangulate on the answer regarding being currently ODF, communities were asked how many latrines there were in each village, and how many were shared. This could then be plotted against the number of households, as is shown here.



In villages that were responded to be ODF currently, there is one toilet for every 2.2 households (1/0.46), while one in every six households (1/0.16) uses a shared toilet (this is a subset of the total, not additional). If a shared toilet is used by two households, then this would give around six toilets in every ten households, if the shared facility was on average used by 2.5 households then the figure would be closer to seven in ten. So, it would appear that, on average, the villages which had indicated that they remained ODF did not have sufficient toilets to be able to merit this description.

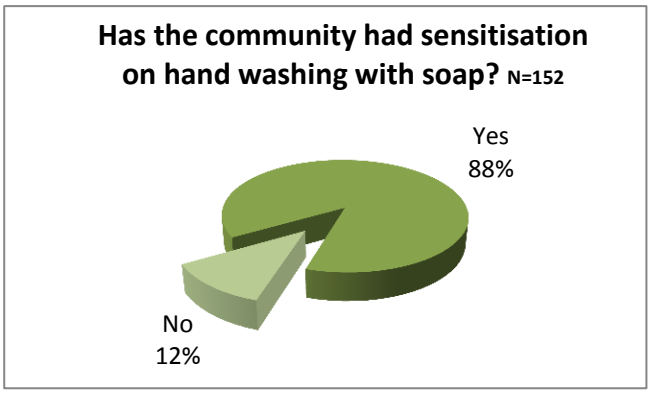
The villages that were indicated to be not ODF currently did not lag significantly behind as can be seen above, with 0.33 toilets per household, of which an average of 0.12 per household were shared.

The next set of questions in the questionnaire part of the survey related to the availability of a sanimart (a seller of sanitary wares) and to whether or not toilets had been replaced since ODF had been declared. On the former, it was very clear that most communities do not have access to such a facility, with only twelve per cent indicating that they did have this.



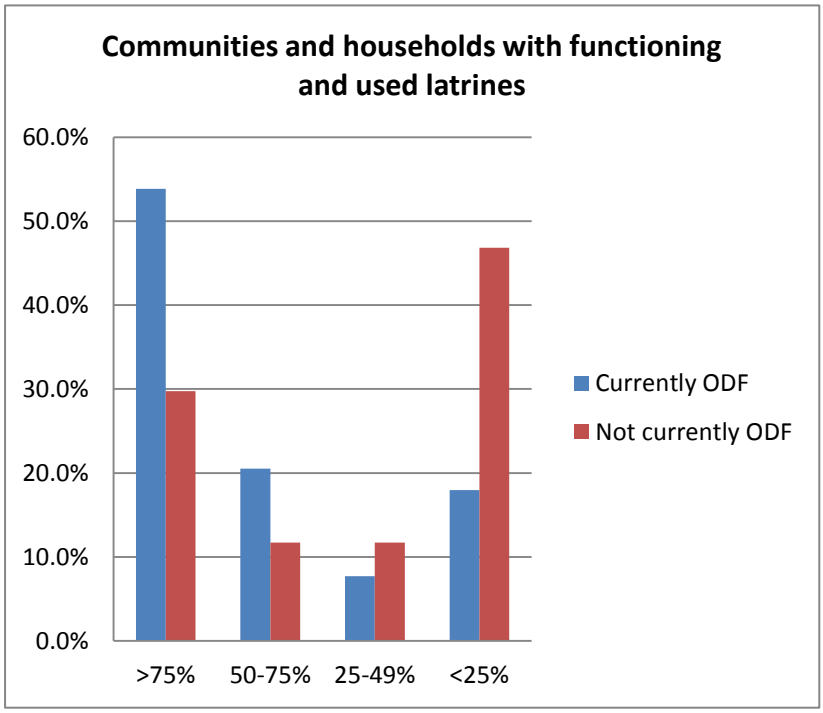
As to whether or not people in communities had replaced toilets and why, unfortunately WASH committee members were almost uniformly unable to respond with any degree of accuracy. Such questions will elicit an accurate response in one to one surveys with householders.

The final question asked of WASH Committees was whether or not their community had received sensitisation on hand washing with soap; the vast majority recalled that they had.



Enumerator Inspection

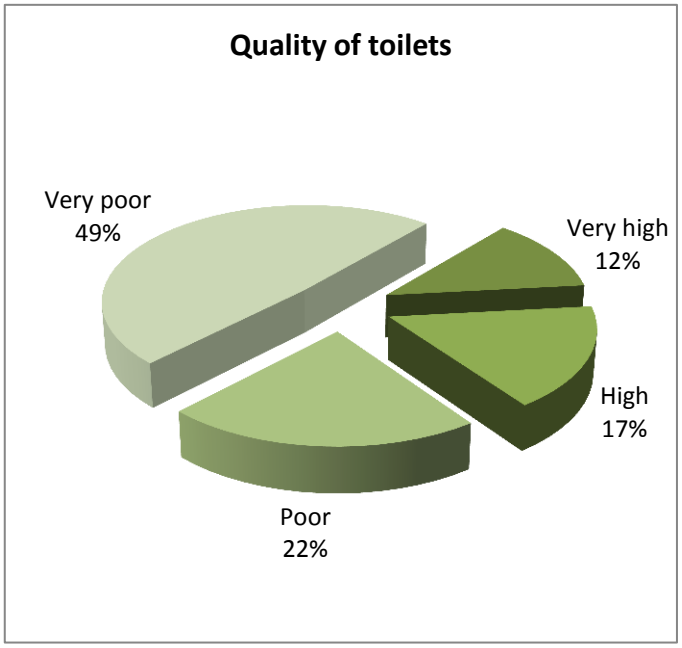
In order to add detail and to add some verification to answers gained in the interview element of the survey visit, enumerators were asked to conduct a walk around the communities they were visiting, to talk with local people, especially the children and to have a look around some of the houses that they came across. Their responses and perceptions are recorded here. Given that these were small samples in each location, the responses here should be treated accordingly; these provide markers and confirmation (or otherwise) of what was found in the questionnaire section.



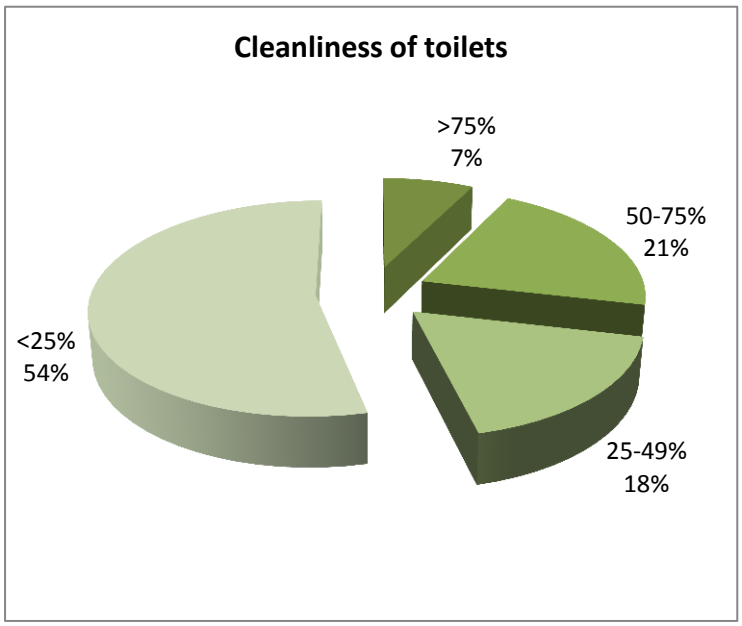
The enumerators were asked to indicate what percentage (within certain pre-set bands) of households they visited had certain facilities. The analysis indicates the percentages of communities where these banded results occurred. So, here it can be seen that in some 54% of currently ODF villages, over 75% of the households had functioning and seemingly used toilets. At the other end of the range, in some 18% of villages which were supposed to be ODF, less than a quarter of households had toilets.

It is clear from above that ODF villages had more toilets than non ODF, significantly so. Only in 30% of non ODF villages did more than 75% of households have toilets, while in some 47% of such villages, less than a quarter had toilets.

The enumerators were asked to assess the quality of the construction of the toilets, in terms of the sanplats and the superstructures, so an overall, qualitative assessment. This is an important element as low cost facilities are often the outcome of CLTS triggering, and it follows that there can be problems to follow in inclement weather, or simply through usage. While this is clearly a judgmental matter and there is no guarantee of consistency of the enumerators' views, they are WASH professionals so have experience to bring to bear. In any event, as can be seen here, 29% of toilets were viewed as being of good or very good quality, the remaining 71% as poor or very poor.



As noted above, it was not possible to obtain meaningful results on latrine replacement but these results suggest that perhaps replacement is not being carried out, or at least is needed in many cases. The prospect for this is not good given the lack of sanitary marts in most locations, also as indicated above.

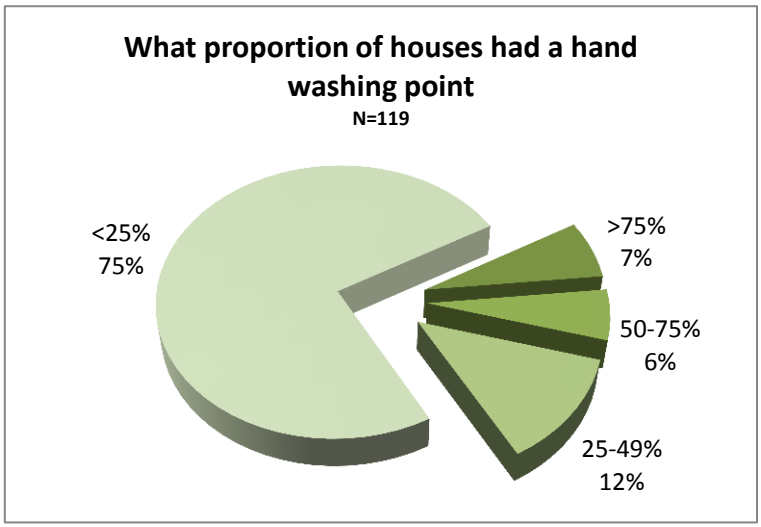


It is usual to identify whether or not toilets were seen as being clean or not; this is an indicator of usability – a soiled toilet is unattractive, probably especially to girls and does not encourage use, therefore undermines retention of ODF. It would also be a sign that the sensitisation in the CLTS proves has not been successful. There is however a need to be wary as judgements on such matters is a matter of choice for those concerned.

The chart here shows the proportion of villages in which different band of cleanliness were observed. So, in 54% of villages, the enumerators indicated that between 0-25 percent of toilets were very clean; at the other end of the spectrum, in seven per cent of villages, between 75-100% of toilets were very clean.

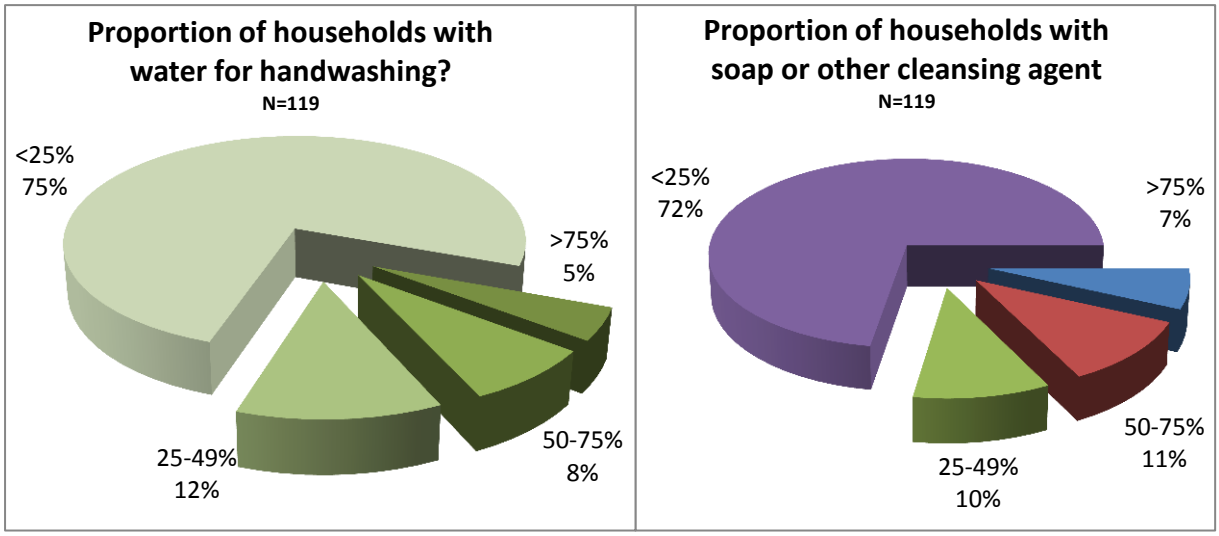
The final batch of observations by the enumerators was on handwashing, particularly whether or not facilities and supplies were within reasonable reach, defined as around ten paces, of the toilet.

First up, was there a handwashing facility so sited? This chart shows that in 75% of villages, between 0-25% of households had a HWWS point. In 12% of villages, between a quarter and a half of houses had this, and in six per cent of villages between a half and three quarters did so.



Only in seven per cent of villages did upwards of three quarters of households have an HWWS point.

Only those villages that had indicated that they had received sensitisation on handwashing are included in this analysis. So, the results indicate that this sensitisation has not been successful as confirmed in the last two charts below. The first is of the proportion of households with water for handwashing, the final one is of households with cleansing agent for handwashing.



The results are close to identical, as would be expected. The enumerators found water for hand washing at between zero and a quarter of households in 75% of villages, the equivalent figure for soap or equivalent being 72% of villages. They found water and soap in more than three quarters of households in only five and seven percent of villages respectively.

Overall, despite having sensitisation, most people in most villages have not adopted good HWWS practices. This is no doubt that this is in very great part because of the lack of resources they have, but also no doubt there are other factors at work, not least of which is the lack of places from which to purchase materials.

5. Conclusions and Recommendations

Introduction

The first question to ask when considering surveys of this nature is whether or not the sample is sufficiently large to enable conclusions to be drawn across the sector. With 186 communities subject to analysis in the case of the rural water supply questionnaire, and 155 in the case of that for sanitation and hygiene, it is felt that the sample is robust.

So, now, the main issues from the analyses are drawn out and conclusions made, in turn for rural water supply and sanitation and hygiene.

Rural Water Supply

The headline figure of 73% functionality on the day of the enumerator's visit is a fairly normal level of sustainability for developing countries in this part of the hemisphere, even if preconceptions were for a lower figure. Such a conclusion says more about expectations: if the bar is set low enough, then the current situation in Madagascar on the basis of this number alone is not completely disastrous. But the devil is in the detail – when the underlying factors are looked at there is a real problem present, and it is pointing towards increasing in severity over time. It also increases in intensity as successive parameters are addressed in the survey.

The key issues, positive and negative are as follows:

1. It is clear that many people need to continue to use unsafe water even where there is a safe water supply. This is the case even where that safe water supply has been available consistently.
2. There are already extremely high numbers of people using some systems; continuing rural population growth, plus system reduced functionality, will exacerbate that problem. This is confirmed by factors such as the distances people need to travel to access water systems, and the length of time people need to queue when they have arrived.
3. Water quality is felt to be acceptable across most communities, but a rather high proportion of people appear to conduct some form of treatment.
4. While most communities have agreed to have a tariff, an uncomfortably high number of them do not have this agreement, and in a further uncomfortably high number of them the agreed basis of collection is *ad hoc*, rather than pay-as-you-fetch, or via a household levy. More importantly, there is a very high rate of non-payment of the tariff that has been agreed. The clear implication is a lack of savings to conduct preventive maintenance and an inability to withstand the shock of system failure, even if relatively trivial.
5. Nearly nine in ten communities have a method agreed for conducting maintenance, either through their own trained mechanic, or via the one in five of sampled communities which indicated that they have chosen to contract their light maintenance out. Functionality was slightly higher with contracted out maintenance as against "in-house".
6. Most communities had a functioning WASH Committee, and many of them had a reasonable gender balance.
7. There is a very high rate of system breakdown: nearly half of all systems broke down in the previous year, and a third of them were reported not to have been fixed satisfactorily. So, by

implication, one sixth of all rural water systems breaks down and are not properly fixed, per year.

8. While half of all systems were reported to be functional for the most recent year, a tenth didn't work at all; systems worked for an average of nine months per year. Note that the sample -off was of systems that had been built or rehabilitated within the last five years. So, at any one time, around a quarter of the rural population of Madagascar has no safe water. The fact that some communities have access to more than one system and so populations have a fall-back in the event of a system (waterpoint) failure may well be counterbalanced by the fact that the sample was of relatively modern systems
9. More than seven in ten communities have no plan or finance for heavy (unforeseen) maintenance and/or for replacement when required.
10. There is a serious absence of suppliers of spare parts. For nearly a third of communities, spare parts are over 100km away; in a rural Madagascan context this is a two day round trip by local bus or motorbike, as a minimum. Additionally, there were significant concerns about the quality of parts and about their affordability.
11. Worst of all, only 12% of communities have some arrangement with their Communes (district government) to obtain support when they have a problem that they can't fix themselves. In over 75% of communities there is no expectation that such assistance would be available to them.

Sector professionals can become used to a third or so of waterpoints not working, as this is the norm. It does not mean that this is acceptable. It is thrown into graphic meaning when other indicators are used; some survey reports are advocating using the term *water person years* as a key indicator.

All the main indicators of system stress (existing over-usage and population growth), of lack of availability of community finance for short and medium terms, of the absence of a functional and high quality affordable supply chain, all are bleak. When the almost complete absence of support to communities from local government is added then there is a sustainability crisis looming.

Communities are unable to manage their own water systems. In fairness, they are only required to do so because there is a complete absence of local capacity to do the necessary job, in both local government organisations and in the local private sector. While strengthening this capacity is necessary, indeed fundamental certainly in the short term, experience elsewhere says that this will not be sufficient.

This emerging crisis in Madagascar requires a sector response in the form of the derivation, agreement and implementation of a strategy that all sector actors sign up to. Indeed, it was always the expectation that this Sustainability Check would provide input into exactly such a Strategy development process. However, what is clear is that the response within that Strategy development process needs to have its starting point in a need for a shift away from thinking about hardware durability. This paradigm shift is dealt with next.

A Paradigm Shift: Service Delivery not Infrastructure Provision

What has been achieved here is a major step forward – to identify systemic issues across an entire country, as against looking at a programme of WASH intervention to see what elements are working and which are not. This is a vital step towards a sustainable water supply sector for Madagascar. It has identified – as expected – huge problems across the range of issues associated with water supply in rural Madagascar.

What comes next?

It may be quite strange to read this statement in a report about sustainability but *sustainability* is not actually the central issue. The central issue is about delivering a service, consistently, to everyone.

If it is agreed that everyone should have a service which comprises a certain amount of water per person per day, at a certain price, for a certain number of hours at a certain quality, then the issue is what needs to be done to achieve that, across the country. It isn't what should be done to ensure that handpumps are working.

In our homes we don't mention sustainability; we have a water service. Water flows through taps because of a complex web of policies, institutions, regulations, finances and technology, all combining, largely invisible to us. It doesn't occur because there is a method of getting a technician around to our house when the water turns brown or stops running, or at least it doesn't happen *only* because of that.

That is the change of paradigm that is needed, and that should be the centrepiece of the Strategy development stage that is to follow.

So, what would be entailed in making that happen? "A service delivery approach is about ensuring long-term services at scale, as opposed to stand-alone projects at community level. To this end, a service delivery approach:

- Emphasises the entire life-cycle of a service, consisting of both the hardware (engineering or construction elements) and software (capacity building, institutional support, financial planning) required to provide and sustain a certain level of access to water.
- Requires defining roles and responsibilities for multiple actors working at different levels and improving coordination and harmonisation among their activities"[9].

The findings of this sustainability check inform each and every one of those parameters and give a firm basis upon which to start the development of a **Sector Water Service Delivery Strategy** to confront the issues identified.

That is the recommendation of this Report in respect of rural water.

[9] www.waterservicesthatlast.org/resources/concepts_tools/service_delivery_approach. Accessed 13th January 2014.

Sanitation and Hygiene

The aim of this investigation, through questionnaire and visual inspection, was to assess the general position regarding the continuation of open defecation free (ODF) practices. As noted in the previous chapter, this poses greater methodological challenges than is the case for the equivalent investigation of rural water supply. Despite these challenges, it is viewed that the results shown do provide a robust all-round picture of the current situation for post CLTS triggering in Madagascar.

Unlike RWS, where the headline figure does not tell the full story, the figures for numbers of ODF communities do exactly that. There are probably fewer nuances than with RWS; what is shown is how it is.

Of the 155 communities that had been subject to triggering, over the previous three years or so, 58% had become open defecation free, the remaining 42% had not. However, the “award” of ODF status had been carried out by the triggering agency in over three quarters of cases. This is not perceived as best practise, where community ownership of ODF practices is, by definition, the aim of CLTS. So, it Is not entirely clear that the distinction between ODF and triggered but not ODF as indicated by community respondents, is a watertight boundary.

In any event, what is more important is whether or not ODF practices are retained, rather than what has been declared. The outcome here can only be seen as disappointing: 43% of villages that had been declared ODF (one way or another) now are considered by the community as ODF, while only 25% of those which had been triggered, were ODF at the time of the survey.

There is ample evidence in the survey that these results are not simply unfortunate. The majority pf communities have not adopted an ODF regulation, demanding and requesting that community members and visitors desist from OD; and the levels of “policing” of ODF are quite low too. There is little evidence of community members building toilets for less able community members when they are unable to do so – this is a key indicator of the depth of ODF belief and motivation; it is lacking in most communities sampled.

The relatively low level of ongoing ODF practise was backed up by an outline assessment of the average number of toilets per household which showed that, even allowing for a high level of sharing, it is not numerically possible for every household to use a toilet, as ODF principles would dictate.

To compound, and confirm, there is almost no evidence of a developed sanitary mart system – nearly nine in ten communities do not have reasonable access to a seller of sanitary wares. Community members cannot replace sanplats when required if there is nowhere to buy them.

While the inspection element of the survey was quite rudimentary, it did allow for the questionnaire element to be confirmed or otherwise. The grim picture revealed by the questionnaire survey was confirmed and more. It showed a picture of non-adherence to ODF even in villages that had said that they had retained that status; it showed a poor quality of build – consistent with CLTS outputs generally but also showing that the sanitation ladder is generally not being climbed; it showed a picture of toilets not being cared for and an almost complete absence of hand washing, despite nearly nine in ten villages recalling that they had received sensitisation.

Overall, therefore, the sustainability picture in respect of ODF and HWWS appears to have some very serious shortcomings. There are myriad possible reasons for this, ranging from inadequate triggering, to lack of return consolidation visits by the triggering agencies, to a lack of a supply chain. It also includes the full range of policy and institutional issues and capacities not touched on in this survey.

With Madagascar having a lamentably low rural sanitation coverage level, according to the JMP and recent estimates by Government, and with extremely low sustainability of ODF communities, the sector is clearly in crisis mode.

Other assessments are being carried out in parallel: UNICEF is looking at its CLTS practices, the WSSCC Global Sanitation Fund has had a recent evaluation and no doubt there are more. In the meantime, the Bottleneck Assessment Tool work has shown that there is a huge amount of tasks to be carried out before the sanitation and hygiene work in Madagascar can start to bear more fruit. These various pieces of work need to be bought together, with all sector actors engaged in the process, in order to work out a way forward together.

Appendix 1 – Terms of Reference

1. Summary

Title	**Sustainability Check for WASH sector in Madagascar**
Purpose	To assess the sustainability of WASH services delivered by different stakeholders
Expected fee (budget)	
Location	Sample taken in representative regions in Madagascar
Duration	4 weeks The contract may be renewed in 2014 and 2015 depending on performance of the consultant.
Start Date	15th of august, 2013
Reporting to	Silvia Gaya Chief, WASH Section
Budget Code/PBA No	Non Grant
Project and activity codes	WBS 2670/A0/05/201/106/001

2. Background

Sustainability is a complex issue affected by many interrelated factors. We know that accountability for sustainability lies with a range of interdependent stakeholders including national and local government institutions, external support agencies, the private sector and communities. There are many different approaches to sustainability monitoring, including the use of functionality data and predictive indicators. Ideally, sustainability measurements should be part of national monitoring systems but in the case of Madagascar they are not. The sector is shifting its vision towards different ways to manage water systems and institutional sanitation facilities. However, operational viability must be assessed before establishing contracts for private operators, since viability depends on issues like customer base and willingness to pay, and price of energy and spare parts among others. Delegation of public service to the private sector must be driven by strong political commitment, sound contractual arrangements and practical regulatory mechanisms at local level together with local arbitration processes.

There is increasing evidence and recognition that many WASH services are not sustainable. This has arisen as a result of unrealistic expectations on community approaches, fragile supply chains, weak institutional capacity, financing challenges for O&M, and the absence of long-term service delivery models. In many cases, the roles and responsibilities of government, service provider and user are not clear, and there are inadequate capacities and resources at a local level.

In response to recognition that a global framework is needed to inspire best practices and lay out common principles to be adapted at national level, UNICEF is supporting the government of Madagascar to have a sustainability analysis. This is designed to send out a clear signal regarding the importance of sustainability, create the right incentives for stakeholders, and form a basis for accountability and support.

UNICEF is supporting the government of Madagascar for the implementation of national programme on water supply, sanitation and hygiene. The partnership is aimed to support to achieve the MDG targets so as to contribute towards improved health and wellbeing especially of children and vulnerable groups in the rural areas. The WASH programme is running over a period of six years from 2009-2014. The programme is managed by UNICEF-Madagascar WASH section and is currently in its fifth year of implementation. The overall objective of the programme is to contribute to improved child survival and development as well as education in rural communities. UNICEF contribution is expected through the provision of safe water, sanitation and hygiene services to increase an estimated 1.000.000, people from rural communities and 500 schools and 50 other institutions in 24 rural districts in 5 regions across Madagascar. The main areas of concentration are specified below but during previous years the activities have been extensive to a total of 13 regions.

- ✓ Atsimo Atsinanana region: Farafangana, Vangaindrano, Midongy Atsimo, Vonindrozo, Befotaka districts
- ✓ Anosy region: Taolagnaro, Amboasary Atsimo, Betroka district
- ✓ Androy region: Ambovombe, Tsihombe, Bekily, Beloha
- ✓ Atsimo Andrefana: Tulear II, Betioky, Ampanihy, Morombe, Ankazoabo, Sakaraha district
- ✓ Analanjirofo: Fenerive Est, Soanierana Ivongo, Vavatenina, Maroatsetra, Mananara nord, Saint Marie

Even though sector coordination is not very effective, there are different stakeholders actively supporting the roll out of WASH activities covering one or multiple components of the national program. Below there is a table of the main partners and their major contribution to the sector and a map of interventions is also attached.

Partner	Main areas of intervention
BAD	Water and institutional sanitation
UNDP	Policy development
EU	Water mainly, less in sanitation
USAID	All WASH components
JICA	Water mainly
UNICEF	All WASH components
Global Sanitation Funds	Sanitation and Hygiene
Water Aid	All WASH components
Local NGOs	All WASH components

3. Justification

The levels of sustainability in the country are perceived as being extremely low, and UNICEF activities are equally considered not very sustainable. The country has not yet a sustainability strategy but the government requested the support of UNICEF in order to develop it.
This piece of consultancy will answer to the need of the WASH sector to generate evidences and will provide critical inputs to understand the general level of sector performance in terms of sustainability. The analysis will also provide a comparative analysis among different programs with the ultimate goal of identifying the practices that are enabling maximal sustainability over the time and consider them for policy development and future scaling up programs. At the same time it will allow UNICEF to understand which UNICEF's position is in the whole sustainability ranking.

4. Objectives

The overall objective of the sustainability analysis in 2013 is to assess the sustainability of (1) new and rehabilitated water facilities (which may be located in communities, schools, or health posts) done with support from different agencies (2) sanitation infrastructure in schools and health centers and 3) use of sanitation and hygienic practices in ODF communities. By doing so, it prompt any necessary sectorial discussions and will set up the main inputs to develop the sustainability strategy for the country to achieve sustainable development.

The basis for the analysis will be the activities implemented over the last 5 years.

5. Specific Tasks

The specific objectives of the proposed consultancy are to:

a) Develop assessment methodology for undertaking regular sustainability checks of the water supply, sanitation and hygiene programme in Madagascar. including sampling methodology of water points (new and rehabilitated water points), targeted schools and health centres for water points and sanitation infrastructure, villages declared Open Defecation Free,
b) Undertake data collection exercise for the 2013 sustainability check in the selected regions and districts;
c) Report on sector sustainability, being able to consider different programmes supported by different agencies. The report will include an analysis of the relevance, sustainability and value for money of sector programme outputs with clear **recommendations** on how to improve sustainability of WASH infrastructure in Madagascar that will trigger the development of a national sustainability strategy.

6. Methodology and Technical Approach

As part of its technical proposal, the Consultant is supposed to develop a detailed methodology for delivering on this Terms of Reference.

6.1 Sampling

The consultant will propose statistical designed techniques of sampling and sample sizes based on the total number of water and sanitation facilities and ODF villages. The methodology will be discussed and agreed with all relevant partners. In order to make the sample manageable, the consultant may propose similarities (in terms of representativity)

across regions in order to reduce the number of regions to be tested and thus reduced a sample size to a more manageable one.

The Sustainability analysis is restricted to water and sanitation facilities constructed or rehabilitated in communities, schools and health centers during the last 5 years as well as ODF villages. It will cover (i) the new water points constructed in communities, schools or health posts, (ii) the water points rehabilitated, (iii) the sanitation facilities constructed in schools (iv) the sanitation facilities used by the households in Open Defecation Free (ODF) villages (v) the status of ODF communities declared since 2008 (vi) the practice of key hygienic practices in schools and in ODF communities.

The Consultant will determine the number and location of villages to be included in the 2013 Sustainability Check. He will have access to the water mapping that the sector has undertaken recently as well as the list and location of all ODF declared and certified villages .

The consultant will train the teams that will be deploid for collecting data and will do first two locations with them in order to assure a quality field work.

6.2 Facility audit of a statistically representative number of water points/institutional latrines and ODF villages

At community level, facility audit of a statistically representative number of water points (both new and rehabilitated water points), institutional latrines and ODF villages, the consultant will check, amongst others but not restricted to:

a) Social factors

- History of (rehabilitated) water points;
- Whether a water committee and maintenance group exist at each water point (number of committee members disaggregated by gender, age);
- The roles and responsibilities (chairperson, secretary, treasurer, mechanic, sanitation and hygiene activist) are clear and the water committee holds regular meetings (frequency of meetings to be defined by the committee);
- If the communities have skills to implement the preventive maintenance activities of the hand pump
- Knowledge by communities where to get support in case of hand pump break down and major repairs;
- Knowledge on key hygiene practices
- Practice of key hygiene practices (using sector proxy indicators)
- ODF status over the time
- History of latrines construction (for institutions)
- Whether a WASH school club/committee exist to entertain infrastructure and promote its use
- Level of demand for each of the key points: water, sanitation, institutional sanitation, hygiene
- Relevance of each intervention in communities, schools, health centers

b) Financial factors

- Number of households contributing to maintenance of the hand pump;
- Total amount paid by each household for maintenance;
- Existence of accurate financial management (Who collects money? When is the money collected? Where is the money kept?), of community contributions;
- Management of money (check the registration in the book);
- Financial mechanism put in place to manage school infrastructure or health center infrastructure and the degree of operationalization and effectiveness
- Financial factors that may prevent households to build their own latrines (disability and vulnerability as a critical factor)

c) Technical factors

- If the water points are working and are being used;
- Frequency of breakdowns or problems and time required to make repairs;
- Existence/quality of supply chain for spare parts;
- Existence of local mechanics in the neighborhood who can repair the hand pump or the community skills to resolve the problem;
- Knowledge how to get spare parts, the cost of the spare parts, and distance to the location to obtain spare parts;
- Quality of maintenance of hand pump (frequency of breakdowns, length of repairs, length of facilities' down time)
- Quality of the aprons and drainage area (Sanitary Inspection);
- If the latrines in school and health center are being used
- Knowledge on how to clean and entertain
- Asses the degree on household latrines moving up on the sanitation ladder

d) Institutional factors

- Knowledge of the authorities about the non working systems
- Budget allocated for maintenance
- Existence of network of professionals for repairing pumps and existence of spare parts
- Plans for infrastructure renewal
- Budget allocated for demand creation and enabling environment for institutional sanitation and hygiene promotion
- Training and operationalization of teachers and health workers for institutional related outputs/outcomes

e) Environmental factors

- precautions to protect the water points from pollution.
- hygiene focuses primarily on protection of water point sources from pollution, mishandling, and degradations as well as on handling of drinking water from source to the point of consumption as well as safe excreta disposal.
- water points are designed and constructed in such a way as to ensure proper drainage of wastewater, preventing water stagnation and avoiding the risk of groundwater/water points' contamination by pit latrines and development of breeding grounds for mosquitoes, flies and other insects.
- impact on environment due to latrines construction.

f) Community-based management factors

- Knowledge by the communities of the performance management indicators.
- The role and responsibilities of each actor are well known by the communities.

- Identify community-based indicators of sustainability which are socially equitable, economically viable and environmentally sustainable.
- Identify key positive and negative factors for each step of the process and Identify the minimum requirements to ensure the sustainability of the infrastructure by the end users.
- Identify scenarios and develop exit strategies

6.3 Focus group discussion and semi-structured interview

The consultant will organize focus group discussions in **the selected regions** with regional direction of water and key governmental and nongovernmental partners as well as the staff that will be doing the rest of data collection. The objective of the discussion will be to touch on **institutional factors, relevance** and **operation and maintenance** of WASH facilities. The focus group discussion will also be used as a data triangulation exercise for the following WASH facilities.

a) Number of water points in the area;
b) Number of ODF communities in the area;
c) Existence, use, and update frequency of manual/computer database;
d) Number of functioning water points in the area;
e) Number of ODF villages after certification
f) Number of artisans in the area;
g) Spare parts approach and supply chain in the area.
h) Training mechanism for teachers and health workers

7. Expected Deliverables

The consultancy will produce the following deliverables:

a) Inception brief: The consultant should submit a short note expanding on the Technical Proposal within three days of signing the contract.

b) Survey protocol and tools: survey tools will have to be developed in consultation with UNICEF and other stakeholders. The **protocol** (including field work plan, training plan on survey tools, quality control mechanisms for data collection and processing with reference to enumerator effects) and tools have to be submitted to UNICEF within one week of signing the contract.

c) Sustainability Check 2013 report: with observations and recommendations for sustainability in Madagascar. Draft report to be submitted to UNICEF within one week after completing field work. Final report to be submitted within one week after receiving consolidated comments from UNICEF.

d) **Stand-alone Power Point presentation:** based on the final report, to be submitted along with the final report.

e) **Raw and analyzed data**: Digital copies of the Microsoft Excel or Access database of all raw data collected during the field surveys and any spread sheets created in the process of the data consolidation and analysis for the reports, to be submitted along with the final report.

Appendix 2 – Rural Water Supply:

Questionnaire

		Region		Faritra		
		District Name		Distrika		
		Commune Name		Kaominina		
		Fokotany name		Fokontany		
		Community Name		Vohitra		
		Interviewer name		Mpanadihady		
		Interviewer email address		Email mpanadihady		
		Interviewer phone number		Laharan-telefaonin'ny mpanadihady		
		Date of interview		Daty nanaovana ny fanadihadiana		
	Water System		**Drafitrasa ahazoan-drano**			
1	What sort of improved water system technology is used by this community (answer all that apply)?		Inona no karazana tekinika famatsian-drano ampiasan'ny tanananareo (mariho avokoa izay mety ho valiny)			1
1a	Hand pump/s (shallow well)	Yes=1, No=2	Paompy tanana	Eny=1, Tsia=2		1a
1b	Mechanised pump/s (electric, diesel or solar pump)	Yes=1, No=2	Paompy mandeha amin'ny gazoil na herin'ny masoandro	Eny=1, Tsia=2		1b

1c	Gravity fed piped system	Yes=1,	No=2	AEPG	Eny=1, Tsia=2		1c
1d	Other collection type with treatment	Yes=1,	No=2	Fanangonan-drano hafa misy fanadiovana	Eny=1, Tsia=2		1d
1e	Are there household connections (Yes=1), or is supply solely communal (No=2)?	Yes=1,	No=2	Misy tambazotra mamatsy ny isan-tokantrano ve (Eny=1), sa famatsiana iraisan'ny besinimaro fotsiny ihany no misy (Tsia=2)?	Eny=1, Tsia=2		1e
1f	If 2) to Q1e) above, How many waterpoints are there in THIS system?	Number		Raha tsia, firy ny isan'ny baorina vatsian'ny paompin-drano (water point)?	Isa		1f
2	When was the water system constructed? (enter years since construction)	Number		Tamin'ny oviana no namboarana io fotodrafitrasa famatsian-drano io? (sorato ny isan'ny taona hatramin'ny fanamboarana)	Isa		2
3	Has the water system been rehabilitated? (Enter years since rehabilitation - or 999 if not rehabilitated)	Number		Efa nisy fanavaozana natao ve tamin'io fotodrafitrasa io? (Sorato ny isan'ny taona hatramin'ny fanavaozana - na 999 raha tsy navaozina)	Isa		3
4	Is the water system functioning today? (Interviewer: do visual check to confirm reponse)	Yes=1,	No=2	Mbola mandeha ve io fotodrafitrasa io amin'izao fotoana izao? (Mpanadihady: jereo maso hanamarinana ny valin-teny)	Eny=1, Tsia=2		4
5	Does the community also ever use unimproved sources (pond, river, lake)?	1=Always, 2=Sometimes, 3=Never		Mbola mampiasa fomba famatsian-drano tsy manaraka ny fenitra ihany ve ny eto antanana? (rano miandrona, renirano, farihy)?	1=Mampiasa hatrany, 2=Mampiasa indraindray, 3=Tsy mampiasa mihitsy		5
	Population and Accessibility			**Mponina sy fahafahana mampiasa**			

6	What is the population of the area served by this water system?	Number	Firy ny isan'ny mponina vatsian'io fomba famatsian-drano io?	Isa		6
7	Is the population of the project area growing so much that it can affect the performance of the facilities? (prompt for evidence to show growth may take usage beyond sustainable levels)	1=Definitely 2-Maybe 3=No	Mitombo haingana loatra ve ny isan'ny mponina eo amin'ny tanana iasan'ny tetikasa ka tsy maharaka intsony ny fotodrafitrasa? (mangataha porofo mampiseho fa mitombo haingana loatra ny mponina ka tsy maharaka sy mety tsy haharitra ny fotodrafitrasa)	1=Tena marina 2=Mety ho marina 3=Tsy marina		7
8	Does the water system provide water for 20 litres per person per day?	1=Always, 2=Usually, 3=Never	Maharaka ny hanome rano 20 litatra isan'olona isan'andro ve ilay fotodrafitrasa?	1=Manome hatrany, 2=Manome matetika, 3=Tsy manome mihitsy		8
9	Does the water system provide water for 50 litres per person per day?	1=Always, 2=Usually, 3=Never	Maharaka ny hanome rano 50 litatra isan'olona isan'andro ve ilay fotodrafitrasa?	1=Manome hatrany, 2=Manome matetika, 3=Tsy manome mihitsy		9
10	What proportion of users are within 500m/ten minutes' walk of a/the waterpoint?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Firy isan-jaton'ireo mpampiasa rano no mipetraka latsaky ny 500 metatra/10 minitra an-tongotra misy ny fotodrafitrasa ve ny ankamaroan'ny mpanjifa?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		10
11	Does the water system yield sufficient water all year round?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Manome rano ampy mandavan-taona ve ilay fotodrafitrasa?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		11

12	Do users have to queue for more than ten minutes?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Mila milahatra mihoatra ny 10 minitra ve ny mpanjifa?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		12
13	Can users fill their containers without pausing during drawing water?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Afaka mameno tsy tapaka ny fasian-drano ve ny mpanjifa rehefa maka rano?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		13
	Quality and Quantity		**Hatsara sy habetsaky ny rano**			
14	Is the water acceptable to the community (taste, appearance)?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Mety amin'ny mponina ve ilay rano? (tsirony, endriny)	1: >75% 2: 50-75% 3: 25-75% 4: <25%		14
15	Do members of the community treat the water before drinking?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Manadio rano ve ny mponina alohan'ny isotroany azy?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		15
	Environment		**Tontolo iainana**			
16	Is the water source sufficiently distant from toilets? (defined as: toilets are >50 metres downstream - interviewer do visual check)	Yes=1, No=2	Mifanalavitra tsara amin'ny kabone ve ny loharano na ny famatsian-drano? (toy izao: mihoatra ny 50 metatra mankany mbany - Mpanadihady: zahao)	Eny=1, Tsia=2		16
17	Is the water source sufficiently protected from animal effluents and industrial emissions? (interviewer should conduct visual check – industry using chemicals should be considerably downstream, fencing should be provided around the waterpoint to keep animals away)	Yes=1, No=2	Voaaro tsara amin'ny biby sy ny loto avoakana orinasa (raha misy) na tanimbary ve ny loharano na famatsian-drano? (Mila mijery maso ny mpanadihady - Ny orinasa na tanimbary mampiasa akora simika dia tokony avy any ambany, tokony asiana fefy ny fotodrafitrasa tsy hidiran'ny biby)	Eny=1, Tsia=2		17

	Finance		**Ara-bola**			
18	Did the community make a cash and/or in-kind contribution to the construction of the water system?	1: Cash 2: In kind 3: Both 4: Neither	Nitondra anjara biriky ve ny mponina tamin'ny namboarana ny fotodrafitrasa? (vola, fitaovana na asa)	1: vola 2: fandraisana anjara (tsy vola) 3: izy roa mitambatra 4: tsy mandray anjara mihintsy		18
19	Did the community agree to pay a tariff for the water used?	Yes=1, No=2	Nifanaraka ve ny mponina fa misy vola aloa amin'ny fampiasana rano?	Eny=1, Tsia=2		19
20	Does the community actually pay what it has agreed?	1: >75% 2: 50-75% 3: 25-75% 4: <25%	Mandoa vola araka izay nifanarahana ve ny mponina amin'izao fotoana izao?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		20
21	Are those who do not pay suspended from using the system?	1: >75% 2: 50-75% 3: 25-75% 4: <25% 5: n/a	Tsy avela mampiasa ny fotodrafitrasa intsony ve ireo tsy mahaloa ny vola?	1: >75% 2: 50-75% 3: 25-75% 4: <25%		21
22	Is the tariff 1: pay as you fetch, 2: household levy or 3: ad hoc?	1, 2 or 3	Ahoana no fomba andoavana ny vola? 1: isaky ny manovo 2: isan-tokantrano 3: arakaraky ny zava-misy	1, 2 na 3		22
	Community Management		**Fitantanana iandraketan'ny mpiaramonina**			
23	Is there a functioning WASH Committee currently in place?	Yes=1, N=2	Misy komitin'ny rano sy ny fahadiovana miasa ve eo an-tanàna amin'izao fotoana izao?	Eny=1, Tsia=2		23

24	Does the WASH Committee meet as frequently as it is meant to? (i.e. as agreed at the start)	Yes=1,	N=2	Mivory matetika araka ny tokony ho izy ve io komity io? (izany hoe araka ny nifanarahana teny ampiandohana)	Eny=1, Tsia=2		24
25	Does the WASH Committee have the number of members that it was agreed it would have?	Yes=1,	N=2	Araka izany nifanarahana ve ny isan'ny mpikambana ao anatin'ny komity ?	Eny=1, Tsia=2		25
26	Are WASH Committee members trained according to sector guidelines?	Yes=1,	N=2	Nahazo fiofanana araka ny torolalana ho an'ity sehatrasa ity ve ireo mpikambana ao amin'ny komity?	Eny=1, Tsia=2		26
27	Is the WASH Committee gender balanced (with at a minimum of 3/7 or equivalent, women)?	Yes=1,	N=2	Mifandanja ve ny isan'ny vehivavy sy lehilahy ao amin'ny komity? (farafahakeliny 3 amin'ny 7 dia tokony ho vehivavy)	Eny=1, Tsia=2		27
28	Are vulnerable groups included in WASH Committee decision-making? (probe: disabled, elderly, minority ethnic groups)	1: >75% 3: 25-75% 5: n/a	2: 50-75% 4: <25%	Mandray anjara amin'ny fandraisana fanapahan-kevitra ao anatin'ny komity ve ireo vondron'olona marefo? (alalino: olona tra-pahasembanana, be antitra, foko vitsy an'isa)	1: >75% 2: 50-75% 3: 25-75% 4: <25% 5: n/a		28
29	Does the WASH Committee have a bank account?	Yes=1,	N=2	Manana kaonty any amin'ny banky na amin'ny sehatra tahirimbola hafa (OTIV, CECAM,…) ve ny komity?	Eny=1, Tsia=2		29
30	Are the financial records/books available for scrutiny by the community? (Interviewer: ask to see the record/books if there is any uncertainty)	Yes=1,	N=2	Azon'ny mponina atao ve ny mijery ny bokim-bola? (Mpanadihady:raha misy fisalasalana dia angataho ho jerena ilay boky)	Eny=1, Tsia=2		30
	Maintenance			**Fikojakojana**			
31	Does the community have a trained mechanic for routine maintenance of the water	Yes=1,	No=2	Manana tekinisianina voahofana ve ny tanàna miandraikitra tsy tapaka ny amin'ny fikojakojana ny fotodrafitrasa?	Eny=1, Tsia=2		31

	system?						
32	Has maintenance been contracted out to private sector management?	Yes=1,	No=2	Nomena ho tantanan'ny sehatra tsy miankina ve izany fikojakojana izany?	Eny=1, Tsia=2		32
33	Is there an agreed maintenance plan in place? (Probe what is it, is it real?).	Yes=1,	No=2	Misy drafitra mipetraka sy nifanarahana ve momba ny fikojakojana ? (Alalino inona ilay izy, ary tena ampiharina ve?).	Eny=1, Tsia=2		33
34	Is the actual frequency of preventive maintenance according to the plan and sufficient?	Yes=1,	No=2	Mifanaraka amin'izay voalaza ao amin'ny drafitra ny fotoana iverenan'ny fikojakojana ary ampy ve izany?	Eny=1, Tsia=2		34
35	Has there been a breakdown of the water system in the last year?	Yes=1,	No=2	Nisy fotoana ve tamin'ny taon-dasa tsy nandehanan'ilay fotodrafitrasa noho ny fahasimbana?	Eny=1, Tsia=2		35
36	If yes, was this satisfactorily attended to by the mechanic or contractor?	Yes=1, 3: N/a	No=2	Raha eny, nahafa-po ve ny fanamboarana nataon'ny tekinisianina na izay nampanaovina azy tamin'izany?	Eny=1, Tsia=2 n/a=3		36
37	For how many months out of the last twelve has the water system been fully functional?	1-12		Tao anatin'ny 12 volana farany, firy volana no nandeha tsara ny fotodrafitrasa?	1-12		37
38	Is there an agreed plan and method to pay for heavy maintenance (defined as non-routine, unexpected)?	Yes=1,	No=2	Misy drafitra manokana sy fomba famatsiam-bola manokana napetraka ve itsinjovana ny fotoana ilana hanaovana fanamboarana na fikojakojana goavana? (izany hoe tsy ara-potoana, tampoka)	Eny=1, Tsia=2		38
39	Is there an agreed plan and method to replace and finance the water system equipment when it becomes life expired?	Yes=1,	No=2	Misy drafitra sy fomba napetraka ve hanoloana sy ividianana fitaovana ho solon'ny fitaovana efa antitra loatra amin'ny fotodrafitrasa?	Eny=1, Tsia=2		39

	Supply Chain			**Famatsiana fitaovana**			
40	Do you know where to access spare parts?	Yes=1,	N=2	Fantatrao ve aiza no ahazoana fitaovana asolo ny simba?	Eny=1, Tsia=2		40
41	How many kilometres away is the location for accessing spare parts?	Number		Firy kilometatra miala eto no misy an' izany fitaovana izany?	Isa		41
42	Are spare parts affordable?	Yes=1,	No=2	Takatry ny fahafaha-mividinareo ireo fitaovana ireo?	Eny=1, Tsia=2		42
43	Are the spare parts of sufficient quality?	Yes=1,	No=2	Tsara kalitao ve ireo fitaovana ireo?	Eny=1, Tsia=2		43
	Institutional			**Ara-panjakana**			
44	Is there an agreed method for the community to inform the Commune when there is a breakdown that the mechanic/contractor cannot fix?	Yes=1,	N=2	Misy fomba ifanarahana ve eo amin'ny mponina hampilazana ny kaominina rehefa misy fahasimbana tsy voavahan'ny tekinisianina?	Eny=1, Tsia=2		44
45	Is there a contracted agreement (or MoU) between the community and the Commune specifying the Commune's responsibilities when there is a breakdown that the mechanic/contractor cannot fix?	Yes=1,	N=2	Misy fifanarahana an-tsoratra mazava ve eo amin'ny mponina sy ny kaominina mametraka ny andraikitry ny kaominina rehefa misy fahasimbana tsy voavahan'ny tekinisianina?	Eny=1, Tsia=2		45

46	Does the Commune actually provide this support to the community when it has a water system problem that the mechanic/contractor cannot fix?	1=Always, 2=Usually, 3=Never 4 = N/A	Manampy ny mponina ve ny kaominina amin'izao fotoana rehefa misy fahasimban'ny fotodrafitrasa tsy voavahan'ny tekinisianina?	1=Manampy hatrany, 2=Manampy matetika, 3=Tsy manampy mihitsy 4=Tsy voakasiky ny fanontaniana		46
47	Does the Ministry of Water provide satisfactory support to the Commune when it has a water system related problem the Commune cannot deal with?	1=Always, 2=Usually, 3=Never 4= N/A	Manampy ny kaominina ve ny Ministeran'ny rano rehefa misy olana mikasika ny fotodrafitrasa izay tsy voavahan'ny kaominina?	1=Manome hatrany, 2=Manome matetika, 3=Tsy manome mihitsy 4=Tsy voakasiky ny fanontaniana		47

Guidance for Interviewers

[Note – this Guidance was provided for field workers in Malagasy – this is available from UNICEF on request but is omitted here for reasons of space].

Rural Water Systems

Management

You are going to fill in the questionnaire as clearly as you can, in pen. So please take a few pens with you, as one will certainly run out when you least want it to!

BEFORE you arrive at the community, please fill in the details at the top of the questionnaire (the name of the region, district, commune and your details).

At the community, please observe the expected protocols for announcing your arrival, making the required greetings etc.

This interview is to be carried out with the WASH Committee members of the village that you have been allocated. In practise, when you ask a question, the WASH Committee (and community members) may well take time discussing the answer, which is fine. You may need to use your own judgment on occasion to decide which answer to apply.

At the start of the meeting, you will need to explain what you are doing. The following text will serve as a guide:

Thank you for taking time to be at this meeting today. I am here to conduct a survey on behalf of Ministry of Water, UNICEF and WaterAid. The reason is to find out some important items about water systems across the country and your village has been chosen as part of this survey. It is not an evaluation of your village and no action will arise as a result of this survey. We would welcome your completely honest responses as this will help us to plan future water systems better.

In practise, when you ask a question, the WASH Committee (and community members) may well take time discussing the answer, which is fine. You may need to use your own judgment on occasion to decide which answer to apply. The questionnaire will take between 45 minutes and an hour to complete.

After you have completed the survey at each community, AS SOON AS POSSIBLE, please transfer all the details to the Excel spreadsheet provided and save it using a filename format that suits you – each single spreadsheet must have a different name. It would be good practise to keep a MASTER copy of the file as the base for your work and fill into a new file each time.

Send the completed file immediately you have an internet connection by email to:

peterryan300@btinternet.com COPY TO peterryan300@gmail.com

Please do not allow the spreadsheets to accumulate – send them immediately you can, one by one if possible. This minimises the possibility of data being lost and also allows us to start the analysis

quickly. Please keep the paper versions of the filled in questionnaires as a backup in case the electronic information is lost.

Entering Information

General

You MUST only enter data in the boxes marked for answers –coloured **blue.**

You must NOT add rows or columns. The data will be copied from the file you send and pasted into a larger spreadsheet to allow analysis of all the responses.

You MUST only answer using ONE of the answers listed next to the relevant question, even if you think a different answer would be better!

Detail

I hope that the questions and answers you are allowed will be self-explanatory. Here are some points to help for some of the questions where I feel that his may help you. If you need help at any time, please phone me (Peter, the consultant from UNICEF who is responsible for the survey – I will try to provide immediate guidance, my mobile phone number is 032 7147 395).

Question	Comment
1	Please provide Yes or No to ALL four options provided.
2	For example, if the system was constructed in 2009, please enter 4
3	Same as 2
4	The visual check can be done at the end of the interview, instead of interrupting the flow of the questionnaire. Maybe someone is using it, or you can try yourself. But you will see anyway from its condition, if it is in use. The question refers to TODAY, not generally. So if it is usually working but it isn't today, then the answer is No. This is why the option, usually or maybe is not available.
5	Please fill in according to your judgement from the discussion that the respondents have when asked this question.
6	This might include people from a distant location, outside this community.
7	Please fill in according to your judgement from the discussion that the respondents have when asked this question.
8, 9	These are levels specified by the World Health Organisation
13	The issue here the water is sufficient for reasonable use. If the recharge is slow this indicates a problem.
16	You will need to check this yourself at the end of the interview. If there is a problem you may choose to explain this to the community.
17	The source here refers to the area that provides the water into the system. So you may not see this (if it is a gravity fed system for example). Use your judgment and ask them about any industry etc that may impact upon the answer.
30	You may (gently) ask to see the bank book or equivalent.
31	It would be reasonable to ask if s/he is present at the meeting as s/he will be well placed to help answer the questions in this section.
36	Meaning, a service interruption that meant that people had to reduce their input significantly or use an unimproved source for a minimum of one day.

44-48	These questions are vital as it is here where communities' systems get neglected and fail…
44	You may wish to validate a Yes answer by asking what the agreed method is.
45 and 46	If a member of the Commune is present, make sure that it is the *community members* that answer these questions truthfully. Probe as much as you need to.
47	Answer 9 if there is no Commune member present.

If you are able to take a few photos **that back up specific points arising during the survey**, please do so and send them to me as low resolution files, indicating which community they refer to. This would help me very much with subsequent reports and presentations.

Many thanks and enjoy doing the survey!

Peter RYAN 17th October 2013.

Appendix 3 – ODF HWWS

Questionnaire

Open Defecation Free and Hand Washing With Soap: Questionnaire	**Fangerena ankalamanjana, fanasana tanana @ savony: Fanadihadiana**	**VALINY**
Region	Faritra	
District Name	Distrika	
Commune Name	Kaominina	
Fokotany name	Fokontany	
Community Name	Vohitra	
Interviewer name	Mpanadihady	
Interviewer email address	Email mpanadihady	
Interviewer phone number	Laharan-telefaonin'ny mpanadihady	
Date of interview	Daty nanaovana ny fanadihadiana	

Questions to ask WASH Committee and CLTS leaders

Fanontaniana apetraka amin'ny komitin'ny rano sy ny fahadiovana ary ireo mpitarika/mpanamora CLTS

Basics **Fanontaniana ankapobeny**

1	What is the population of this community?	Number	Firy no isan'ny mponina ao anatin'ity vohitra ity?	Isany		1
2	How many households are there?	Number	Firy no isan'ny tokan-trano? (iray fatana)	Isany		2
3a	Has this community been declared ODF	1=Yes 2=No	Efa voamarina tanteraka ve fa tsisy fangerena ankalamanjana (ODF) intsony eto?	1=eny,	2=tsia	3a

3b	If yes to 3a, when was the community declared ODF?	YYYY	Raha eny, oviana ?	Taona	3b
3c	Who made the ddeclaration that the village was ODF?	1: The community when the triggering took place 2: The triggering agency 3: It was externally verified	Iza no manao ny fanambarana fa ilay tanana dia tsisy fangerena ankalamanjana intsony?	1. Ny fiarahamonina ve 2. Ny mpiaramiombon'natoka 3. Olona hafa	3c
4	Who was the triggering agency?	Name	Iza no mpiara-miombonantoka nanantanteraka ny fanairana? (CLTS/ Declenchement)	Anarana	4
5	Was a prize given for the award of ODF?	1=Yes 2=No	Nisy fanomezana natokana ve fankasitrahana ho fanatanterahana ny ODF	1=eny, 2=tsia	5
6	If yes to q5, was the prize 1 - cash, 2 - other	1=Cash 2=Other 3= n/a	Raha eny , 1- Lelavola, 2- fomba hafa	1=lelavola, 2=hafa, 3=n/a	6
7	Has the community adopted a regulation declaring that all who live and visit here must not practise open defecation?	1=Yes 2=No	Nisy lalana na dina ve nampiharinareo mametra ny mponina rehetra sy izay vahiny mandalo ao ny amin'ny tsy tokony hanaovana ny fangerena ankalamanjana?	1=eny 2=tsia	7
8	Does the WASH committee/community police the adherence to this regulation?	1=Yes 2=No	Ny komitin'ny rano sy ny fahadiovana ve mampihatra na manaramaso ny fampiharana ny lalana/dina?	1=eny 2=tsia	8
9	Does the community build latrines for those unable to do so in order to ensure ODF?	1=Always 2=Sometimes 3=Never	Misy fandraisana anjara @ fanamboarana ny lava-piringa ho an'ireo sahirana ve eto aminareo?	1=mandavan-taona 2=indraindray 3=tsy misy	9
10	Is the community ODF now?	1=Yes 2=No	Voalaza ofisialy ve fa "Tanana tsy misy fangerena ankalamanjana" ny vohitrareo?	1=eny, 2=tsia	10

11	How many latrines are there in the village?	Number	Firy ny isan'ny kabone eto amin'ny tanana?	Isany		11
12	How many latrines are shared by more than one family?	Number	Firy ny isan'ny kabone itambarana fianakaviana mihaotra ny roa?	Isany		12
	Sanitation Ladder		**Dingana vita momba ny fahadiovana**			
13	Since the community was declared ODF, how many latrines have collapsed?	Number	Firy no isan'ny lava-piringa rava hatramin'ny naha ODF ny tanananareo?	Isany		13
14	Of that number, how many have been rebuilt and are being used again?	Number	Firy tamin'ireo no efa potika ka naverina natsangana indray?	Isany		14
15	Since the community was first declared ODF, how many households have made replacements to the latrines? (I.E NOT AFTER COLLAPSE)	Number	Hatramin'ny naha ODF ilay vohitra, firy ireo tokan-trano nanatsara ny lava-piringany?? (Fanamarihana: tsy ireo izay taorin'ny faharavana)	Isany		15
16	What replacements have been made?		Inona ny fanatsarana nataony??			16
16a	o Replacements of same quality	Number	Natao nitovy t@ kalitaony teo aloha	Isany		16a
16b	o Better latrine sanplats	Number	Natao tsaratsara kokoa (sanplats etc)	Isany		16b
16c	o Better superstructures	Number	Natao foto-drafitsara manara-penitra	Isany		16c
17	Is there a seller/s of sanitary wares in the locality?	1=Yes 2=No	Misy mpivarotra kojakoja na fitaovana momba ny kabona ve eto aminareo?	1=eny, 2=tsia		17
	Hand washing with soap		**Ny fanasana tanana amin'ny savony**			
18	Has the community had sensitisation on hand washing with soap?	1=Yes 2=No	Efa nahazo fanentanana momba ny fanasana tanana @ savony ve io vohitra io?	1=eny, 2=tsia		18
19	Who was the triggering agency?	Name	Iza ny mpiara-miombonantoka nanatanteraka ny fanairana? (Declenchement CLTS) A enlever	Anarana		19
20	When did this take place?	YYYY	Oviana?	Taona		20

unicef

	Questions to fill in after a visual inspection around the community		**Fanontaniana fenoina rehefa avy nizaha ny tontolo manodidina**		
	ODF confirmation		**Fanamarinana ny tsy fisian'ny fangerena ankalamanjana**		
21	What proportion of the homes you visited have functioning and used latrines? (refer particularly to the guidance below)	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Firy ireo tokan-trano notsidihinao no mampiasa lava-piringa? (jereo ny torolalana ery ambany).	1: >75% 2: 50-75% 3: 25-50% 4: <25%	21
	Toilet quality		**Ny kalitaon'ny kabone**		
22	What is your assessment of the quality of the sanplats and superstructures, especially to last periods of rough weather etc - will they last?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Ahoana ny fandrefesanao/na ny hevitrao momba ny fahatsaran'ny DSP sy ny foto-drafitrasa, indrindra taorian'ny andro ratsy, mety haharitra ve ny fampiasana ny lava-piringa?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	22
23	What proportion of houses had very clean toilets ?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Firy isan-jaton'ny tokantrano no manana lavapiringa madio?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	23
	Hand washing with soap		**Ny fanasana tanana amin'ny savony**		
24	What proportion of houses had a hand washing point within around ten paces of the latrine?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Firy isan-jaton'ny tokatrano misy toerana fanasana tanana, fa miataka lavitra ny lava-piringa??	1: >75% 2: 50-75% 3: 25-50% 4: <25%	24
25	What proportion of houses had water available at that handwashing point (e.g. a functioning tippy-tappy: you can get a household member to indicate how to use it to confirm their use)?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Firy isan-jaton'ny tokantrano no manana rano vonona avy hatrany azo hanasana tanana (ohatra hoe TiPPY-Tap :afaka nanao fanandramana niaraka t@ solontenan'ny tokantrano, ny fomba fampiasa azy ve enao)?	1: >75% 2: 50-75% 3: 25-50% 4: <25%	25

26	What proportion of houses had soap or other cleaning agent present at the hand-washing point which is clearly being used	1: >75% 2: 50-75% 3: 25-50% 4: <25%	Firy isan-jaton'ny tokantrano no manana savony na zavatra mahasolo ny savony ve teo @ toerana fanasan-tanana izay hita fa afaka ampiasaina/na nampiasaina??	1: >75% 2: 50-75% 3: 25-50% 4: <25%	26

Guidance for Interviewers

Open Defecation Free and Hand Washing with Soap

[Note – this Guidance was provided for field workers in Malagasy – this is available from UNICEF on request but is omitted here for reasons of space].

Management

You are going to fill in the questionnaire as clearly as you can, in pen. So please take a few pens with you, as one will certainly run out when you least want it to!

BEFORE you arrive at the community, please fill in the details at the top of the questionnaire (the name of the region, district, commune and your details).

At the community, please observe the expected protocols for announcing your arrival, making the required greetings etc.

Questions 1-20 will be carried out with the WASH Committee members of the village that you have been allocated. You will follow this with a walk around the community and then fill in some further answers (questions 21-26) AS SOON AS you are able.

In practise, when you ask a question, the WASH Committee (and community members) may well take time discussing the answer, which is fine. You may need to use your own judgment on occasion to decide which answer to apply.

At the start of the meeting, you will need to explain what you are doing. The following text will serve as a guide:

> Thank you for taking time to be at this meeting today. I am here to conduct a survey on behalf of Ministry of Water, UNICEF and WaterAid. The reason is to find out some important items about sanitation and hygiene facilities and usage across the country; your village has been chosen as part of this survey. It is not an evaluation of your village and no action will arise as a result of this survey.
>
> We would welcome your completely honest responses as this will help us to plan future sanitation and hygiene actions better.

In practise, when you ask a question, the WASH Committee (and community members) may well take time discussing the answer, which is fine. You may need to use your own judgment on occasion to decide which answer to apply. The questionnaire will take between 20 and 30 minutes to complete, you will then need another 20 to 30 minutes for your visual inspection.

After you have completed the survey at each community, AS SOON AS POSSIBLE, please transfer all the details to the Excel spreadsheet provided and save it using a filename format that suits you – each single spreadsheet must have a different name. It would be good practise to keep a MASTER copy of the file as the base for your work and fill into a new file each time.

Send the completed file immediately you have an internet connection by email to:

peterryan300@btinternet.com COPY TO peterryan300@gmail.com

Please do not allow the spreadsheets to accumulate – send them immediately you can, one by one if possible. This minimises the possibility of data being lost and also allows us to start the analysis quickly. Please keep the paper versions of the filled in questionnaires as a backup in case the electronic information is lost.

Entering Information

General

You MUST only enter data in the boxes marked for answers –coloured **blue.**

You must NOT add rows or columns. The data will be copied from the file you send and pasted into a larger spreadsheet to allow analysis of all the responses.

You MUST only answer using ONE of the answers listed next to the relevant question, even if you think a different answer would be better!

Detail

I hope that the questions and answers you are allowed will be self-explanatory. Here are some points to help for some of the questions where I feel that his may help you. If you need help at any time, please phone me (Peter, the consultant from UNICEF who is responsible for the survey – I will try to provide immediate guidance, my mobile phone number is 032 7147 395).

Question	Comment
1-2	Self-explanatory
3	We are sampling communities that have had CLTS programme implemented. Our sample should all have been declared ODF (French: Zero DAL). However, if there is some confusion on this, please enter the year in which the CLTS programme (triggering) was undertaken in the community
4-10	Self-explanatory
11	Do **NOT** prompt or make any remark comparing the answer here with the number answered for Q2.
12	Sharing is a necessary element of ODF, so while communities sometimes are embarrassed to answer this, you can encourage an honest response.
13	i.e. have become unusable due to structural damage or the elimination of privacy.
14	Self-explanatory
15	We are trying to find out how many households themselves have made improvements, not how many have HAD TO replace (we have established that already in Q14)
16	You can put a number in none, some or all of a to d.
17	Locally, meaning within easy travel distance and time (probably defined as there and back within a day?).
18-20	Self-explanatory
Visual inspection – this is basically verification of what you have heard but keep it light and friendly! Try and visit around as much of the community as you can, making mental note of the answers you are going to make in the following questions. Please try and visit a minimum of ten houses during your visit.	

Of course you will probably want to take notes as you go around, so be prepared with a notebook and pen. Children may want to walk around with you; encourage this and ask them questions as you go… they will often be more truthful than adults on issues of defecation!

If you are able to take a few photos **that back up specific points arising during the survey**, please do so and send them to me as low resolution files, indicating which community they refer to. This would help me very much with subsequent reports and presentations.

Many thanks and enjoy doing the survey!

Peter RYAN 25th October 2013.

Appendix 4 – WASH in Schools questions for insertion into Ministry of Education Schools' Questionnaire

[Note –this is available in Malagasy from UNICEF on request but is omitted here for reasons of space].

Basic data to be filled in by the interviewer	
Region	
Commune name	
Community Name	
School Name	
Interviewer name	
Interviewer email address	
Interviewer phone number	
Date of interview (DD/MM)	

QUESTIONS TO ASK SCHOOL WASH COMMITTEE		
When was the WASH in Schools programme carried out at this school?	YYYY	
Who was the implementing agency?	Name of agency	
Do you currently have dedicated WASH classes/training for children?	1=Yes, Always, 2= Sometimes, 3=No, never	
Do you have trained WASH champions among staff and patrons?	1: yes 2: no	
Are there separate latrine blocks for girls and boys?	1: Yes 2: No	
Is there a separate block/s for teachers and staff?	1: Yes 2: No	
How many girls are there per drop hole?	Number (ratio)	
How many boys are there per drop hole?	Number (ratio)	
Do you have a specific WASH budget?	1: Yes 2: No	
Is there drinking water available for children every school day?	1: Yes 2: No	

Is it treated with chlorine or equivalent?	1: Yes 2: No	
Observations of the interviewer		
Drinking Water		
Is there an adequate drinking water supply?	1 - Fast running and looking clean without smell 2: Medium 3: Slow running and discoloured or smelly	
Latrines		
For the girls latrines - are they open and usable (not vandalised, with doors for privacy etc) today?	1 - yes, all open, usable, and with doors 2: Most open and usable 3: No, not usable, vandalised or without doors	
For the boys latrines - are they open and usable (not vandalised, with doors for privacy etc) today?	1 - yes, all open, usable, and with doors 2: Most open and usable 3: No, not usable, vandalised or without doors	
Are the girls latrine sanplats clean and drop holes covered?	1 - Yes, very clean and drop holes covered 2 - Some clean, some covered 3: No, very dirty and mostly uncovered	
Are the boys latrine sanplats clean and drop holes covered?	1 - Yes, very clean and drop holes covered 2 - Some clean, some covered 3: No, very dirty and mostly uncovered	
Are there facilities for girls to wash their sanitary napkins and dry out in privacy?	1: Yes 2: No	
Hand washing with soap		
Is there a handwashing point close to the latrines?	1: Yes 2: No	
Is there a handwashing point more distant from the latrines?	1: Yes 2: No	
Is there water available for handwashing there?	1: Yes 2: No	
Is there soap or other cleaning material available (and usable) there?	1: Yes 2: No	