

Sustainability of WaterAid projects in Timor-Leste: Annual GMF report 2011

April 2011

This report publishes and analyses data on water points and Grupu Maneja Fasilidade (GMFs) set up by WaterAid in 2008 and 2009. It builds on WaterAid's 2010 paper called *Sustainability of rural water supply in Timor-Leste* (see 'More Information' box below).

The key findings from the data (see Appendix) are that 91% of water points were still functioning 2 years after installation, with 93% functioning 1 year after installation.

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2. Supporting GMFs via the monitoring officer and GMF Federation
3. Ensuring that one GMF technical person is always a woman
4. Publishing this GMF report every year

Overview of projects

WaterAid's projects of 2008-9 were implemented in 23 sites in the sub-district of Maubara in Liquiça. Data collected on these projects in September-December 2010 shows:

- functionality of taps in these sites,
- level of operation and maintenance funds,
- percentage of GMF members that are women.

Of the 11 projects implemented in Maubara in 2008, 3 were found to have some non-functioning taps when visited, whereas for 2009 projects, 4 out of 12 sites had a functionality problem.

This information was collected by Daniel Seco, WaterAid's monitoring officer. He goes to different villages daily to monitor all WaterAid projects, and visits each site every 6 months for the first two years after the project ends. Then he writes reports about the water systems maintained by the GMFs – his job is important for ensuring the projects are sustainable.

Common reasons for water system breakdown

Three main areas were identified from 2008-9 projects as being important, related to technical, management and financial issues. These are discussed more broadly in WaterAid's 2010 sustainability paper (see references).

Definition of "functionality"

In routine monitoring, a tap is considered "functional" if water is flowing at the time of Daniel's visit. Therefore, the data in this report is not comparable to the definition of "fully functioning" used e.g. in the survey carried out by Plan in 2009 (see references). That definition included not only functionality but also issues of service level, such as distance and water quality.

Case study 1: Maniquibia

Maniquibia is one of WaterAid project sites from 2008. There are 37 households and 12 taps, but 3 taps are not working. This is because there are some widows who did not involve themselves voluntarily during the construction of tanks and tap stands, and have never contributed maintenance funds. Their own community has therefore sanctioned them and the GMF refuses to repair the broken taps. WaterAid is working to resolve this problem and to ensure that such disputes do not come up again in the future.

Case study 2: Datukolo

Datukolo is one of WaterAid's projects implemented in 2009 and 16 water taps were installed for 45 households. So far, all these are still working well. In terms of maintenance fund, there is now \$135 collected. The GMF Chief is conducting maintenance services such as cleaning the tanks, water source and taps.

1. Quality of material and construction not perfect

Some tap stands and water tanks were built with low-grade cement, so the quality of taps and tanks was not good. For example in Bagroto, the tanks and water taps were built from low-quality Phoenix cement not Tonasa cement. This resulted in cracking of some tanks and water tap stands. There are also cases where taps broke down quickly due to low quality parts, for example in Vouravei where two tap handles have become loose.

2. Lack of technical skill and access to spare parts

All GMFs receive technical training, but this does not guarantee their ability to repair minor or major damage to taps and tanks and pipeline. On-going technical support is still needed, for example from Daniel during his visits for 2 years after the project, and through links to the GMF Federation (see below). These are interim measures until there is a working system set up by the government for technical support to GMFs.

Moreover, even if the GMF members have a good level of skill and the necessary funds, they may find it hard to do their job without availability of spare parts, such as taps, plugs, or sockets. This is because many communities located are far from the sub-district and district town. This is the problem faced by the people in Vouravei mentioned above.

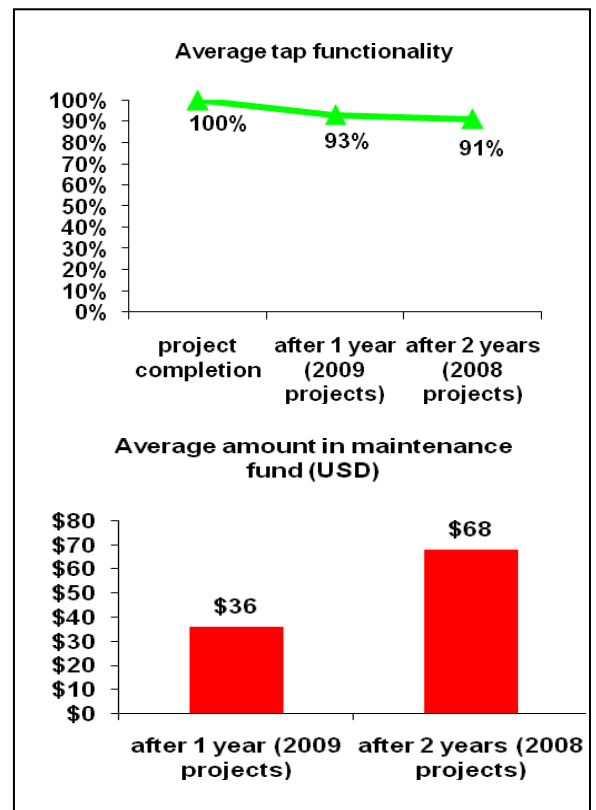
To tackle this problem, WaterAid has experimented with supporting local entrepreneurs at suco level to sell spare parts to surrounding aldeias, with varying levels of success. For example, WaterAid recently facilitated a local man in Nunuhou to sell spare parts through a loan scheme. He was given \$200 worth of stock, and has to pay back the loan in \$25 installments every 3 months, depending on sales.

3. Weak collection of maintenance funds due to non functioning GMF

It is important that GMFs hold regular meetings to keep track of how the system is working, organise the collection of the maintenance fund, and to ensure their legitimacy in the community. Generally, households are asked to provide 25 cents per month (\$3 a year) to the maintenance fund, to be used by the GMF when repairs are needed.

It is important that the fund is collected regularly throughout the year, because it is hard to raise large amounts of money quickly when a problem occurs. At Datukolo sub-district of Maubara, due to smooth fund collection, the 16 taps are still working well (see case study).

Fund collection is happening in most aldeias, with an average of \$1.60 collected per household after the first year. However, out of the 23 projects, 2 have no money in the fund. For example, in Maubu the GMF chief is not trusted and people do not want to pay the maintenance fund.



Daniel inspects a cracked intake

Case study 3: Kirlelo

Kirlelo had 20 water taps installed in 2009, but 3 were not functioning when Daniel visited. The management of the maintenance fund is not smooth. There was no meeting between chief of GMF and community on how important it is that communities themselves collect money in order to keep the water system sustainable. Therefore, no funds were collected, because the community did not want to pay.

More information

WaterAid has developed a Sustainability Framework to guide Country Programs and partners on how to achieve sustainability in the provision of safe water in rural areas. It is available from wateraid.org/publications

WaterAid (2010) Sustainability of rural water supply in Timor Leste

An overview of sustainability in Timor-Leste and how WaterAid and partners are trying to address it

Plan (2009) Baseline survey of Aileu and Lautem District

A survey of two districts, containing detailed analysis of common problems, with useful recommendations.

BESIK (2011) Women in GMF technical roles

To watch this video about women in GMFs, go to: <http://vimeo.com/20593225>



WaterAid's mission is to overcome poverty by enabling the world's poorest people to gain access to safe water, sanitation and hygiene education.

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Two additional areas WaterAid is focusing on for water point sustainability

Women's participation in GMFs

It is important GMFs contain both men and women, so that there are balanced inputs into decision-making. On average across the 23 projects, 28% of GMF members are women, but this ranged between 14% and 57%.

In Manuqibia, women's participation in the GMF (57%) is higher than most other GMFs. But most of women's jobs in GMFs non-technical ones, such as secretary and family health promoter. In the 2008-9 projects, most of the technical roles were taken by men. WaterAid experience from elsewhere is that women's involvement in technical role will increase tapstand functionality, and improving women's participation has been a priority.

Support to communities through GMF Federation

The Maubara GMF Federation is forum of 32 GMFs established by WaterAid in the sub-district. It is a focal body of GMFs which shall be used to channel support to individual GMFs. GMFs discuss issues of mutual interest and help solve problems and seek support. For example, the GMF Federation organised a dialogue with SAS in Manuqibia, which resulted in communities receiving assurances about rehabilitation of intakes in Manuqibia and Kulao. A further objective is to develop it into an organization which is able to strengthen the voices of GMFs at district level and represent members' interests during discussions with the government. WaterAid has facilitated training to the GMF Federation such as how to strengthen their members.

Further data to collect

After reviewing the data, some thought was put into what data Daniel collects and how indicators could be improved. It is important to balance what it is useful to know and compare between GMFs, with what it is possible to collect. Discussion revealed that the following questions could be included:

1. Regularity of GMF meeting: (i) every month, (ii) every two months, or (iii) only when needed
2. Technical skill of GMF: low, medium, high
3. Location of maintenance tools: (i) all with caretaker, or (ii) at different places
4. Maintenance fund spent since project ended:

Conclusions

In summary, WaterAid is satisfied with current tap functionality but worried about the low maintenance funds collected by many GMFs. Similarly, women's representation in technical role should be promoted.

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Appendix: Data collected by monitoring officer in September-December 2010

	avg % GMF women	avg \$ per HH	avg total \$	Taps total	taps not in use	% functionality
After 1 year (2009)	28%	\$1.6	\$36	88	6	93%
After 2 years (2008)		\$2.7	\$68	96	9	91%

	Name of Project	% GMF women	HH	Pop	Fund	Fund per HH	Taps total	Taps not in use	% functionality	
2008	1	Lisa-lara	14%	24	81	\$45	\$1.9	8	0	100%
	2	Lebuae. AB	29%	40	175	\$149	\$3.7	7	3	57%
	3	Manuquibia	57%	37	170	\$175	\$4.7	12	3	75%
	4	Daru-lemu	29%	34	148	\$99	\$2.9	16	0	100%
	5	Nunulete	29%	7	31	\$21	\$3.0	4	0	100%
	6	Vatugili Betulpu	29%	14	83	\$105	\$7.5	4	0	100%
	7	Maubu.B	29%	42	189	DK	DK	9	0	100%
	8	Gariana	29%	34	178	\$13	\$0.4	14	0	100%
	9	Glai	29%	35	158	\$40	\$1.1	13	3	77%
	10	Vouraebei.A	14%	27	135	\$27	\$1.0	6	0	100%
	11	Bautalo.A	29%	20	90	\$12	\$0.6	3	0	100%
2009	12	Mancobo	29%	24	90	\$25	\$1.0	5	1	80%
	13	Lebuae. C	29%	19	39	\$18	\$0.9	5	0	100%
	14	Vatuvou School	14%	27	135	\$27	\$1.0	1	0	100%
	15	Lebutelo	14%	22	65	\$0	\$0.0	7	0	100%
	16	Bautalo.B	29%	9	37	\$40	\$4.4	9	0	100%
	17	Kimipu.A	29%	18	70	\$45	\$2.5	5	0	100%
	18	Camalhoru	43%	39	187	\$40	\$1.0	5	0	100%
	19	Culau	43%	30	167	\$26	\$0.9	5	1	80%
	20	Samanaro	29%	19	85	\$26	\$1.4	2	1	50%
	21	Nunuhou	29%	16	134	\$45	\$2.8	8	0	100%
	22	Dato kolo	29%	45	359	\$135	\$3.0	16	0	100%
	23	Kirlelo	14%	80	360	\$0	\$0.0	20	3	85%

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Notes

- "Funds per household" should not be interpreted as a tariff (which is normally 25 cents per household per month, i.e. \$3 per year). It is simply how much money is in the fund divided by the number of households. The aim is to make fund levels comparable across different community sizes.
- Due to the varying population density in different communities, some may appear have a larger number of taps per household than others. This is also affected by the volume of water available from the source.
- The definition of functionality is restricted to whether water is coming out to the tap on the day Daniel visits, see note p.2

