

WATER FOR PEOPLE

2006 MONITORING SUMMARY DATA

Water For People currently works in 5 countries worldwide (Malawi, India (West Bengal), Guatemala, Bolivia and Honduras). Our programmatic approach is to build the capacity of local governmental and non-governmental partners to support sustainable water supply and sanitation interventions at community level. Water For People is therefore an indirect implementer as we recognize that success in the countries we work in depends on building up local institutions who can support sustainable water and sanitation at the community level over time.

Our approach is to support community-based initiatives, where communities take the lead on solving their water supply and sanitation challenges with critical assistance from local government, local NGOs and the local private sector. If all role players are strong and play their respective roles, then project sustainability is enhanced. Water supplies will keep flowing as communities will be able to address problems with water supply and sanitation facilities that they can address, and access external support as needed to address water and sanitation problems they alone can not solve.

Water For People has initiated a monitoring program to measure progress in communities we have supported with our local partners. Monitoring visits will occur each year in every country we work in so that the quality of our support can be assessed. Results will be posted on the internet to ensure transparency. And monitoring will be done with a new set of partners – volunteers from North America working with in-country counterparts to determine the effectiveness of our support.

The work below is from Honduras, where this monitoring protocol was first tested. Improvements to the system are being made based on our Honduran experience.

MONITORING

Water For People defines monitoring as the following:

Monitoring is the continuous and systematic assessment of program/project progress against set targets designed to improve project performance. Monitoring of project work over time (post-project) usually involves simple checklists/questionnaires that are filled out each year for a sample of supported projects.

Monitoring is not focused on measuring the long-term impact of a project or program, but rather examines whether infrastructure is being used and managed as designed. This means that impact data, such as disease reduction and economic spin-offs, are not assessed.

Instead, key data on functionality, use, operation and maintenance is gathered annually. It is important for an organization like Water For People to know whether the interventions it has supported are functioning and being used over time. If yes, then one key goal of water and sanitation has been met – providing sustainable services to poor people in developing countries. If the systems are not functioning, then our support has

2006 Monitoring Summary Data

not been effective nor has it changed people's lives. If no monitoring is done, then organizations have no idea whether their previous work or current approaches lead to meaningful change on the ground.

Evaluations are more detailed and explore questions of impact, such as possible disease reduction. Unlike monitoring, evaluation is more in-depth and focuses on fewer communities and asks deeper questions. Good evaluations build their investigations from effective monitoring data and therefore both monitoring and evaluation are critical to understanding the effectiveness of an organization. Unfortunately, few evaluations are as effective as they can be, because monitoring is mistakenly conflated with evaluation and not prioritized in the sector.

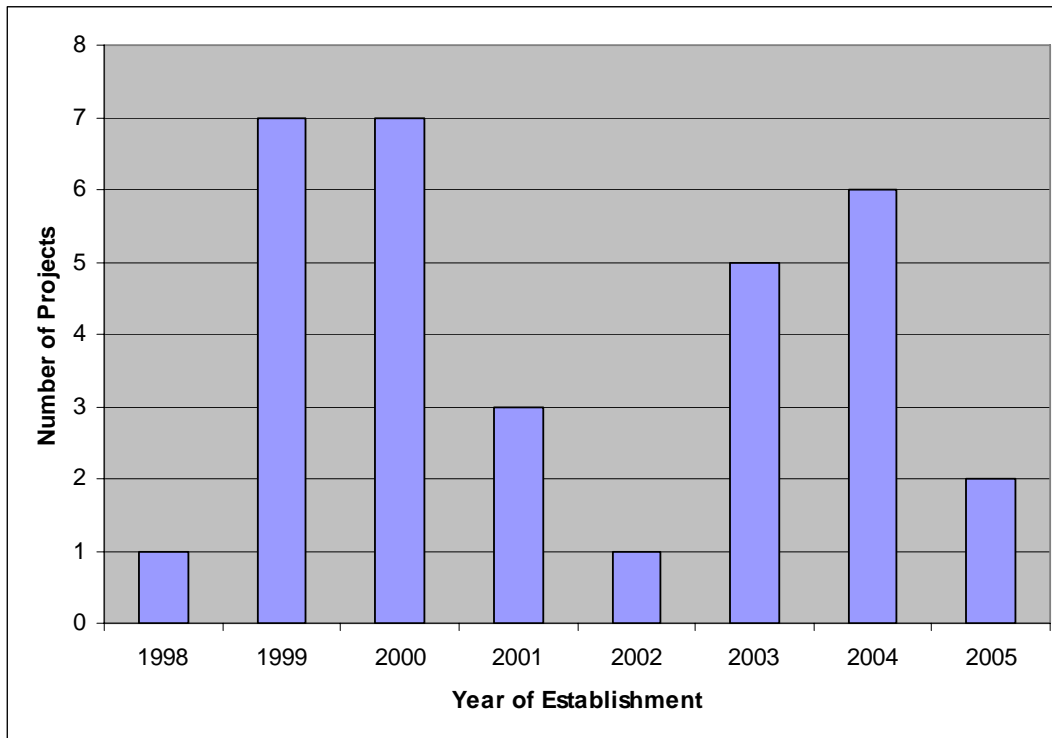
To us, the key questions for monitoring include:

- How many projects supported by Water For People have been functioning for more than five years?
- How many committees have tariff systems in place to address system breakdowns?
- How many projects have water available all year long?
- How long does it take a community to repair a broken system?
- How can a proper evaluation occur without knowing this basic, but critical, data?

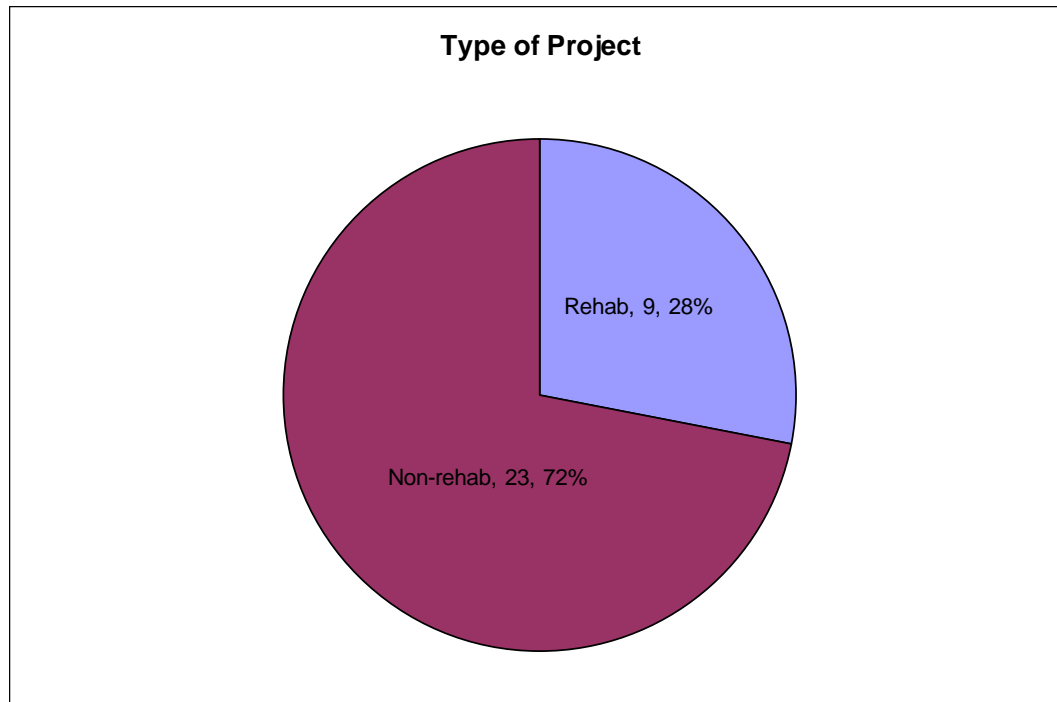
Water For People is generating historical data from monitoring and will use this to inform evaluations of our program work. It is our belief that we are responsible for reporting on the functionality and use of systems that we have supported in the past. It is our hope that our support to poor communities worldwide will improve if we make this data available for public comment without reservation. Without this, we are not being as transparent as we could be or as accountable to communities that request our support.

In September 2006, a team of volunteers was sent to Honduras to pilot our new web-based monitoring system. Future monitoring visits will address some of the data gaps (described below). Future monitoring will focus primarily on our focus districts within existing country programs. A random, representative sample of all previous work outside focus districts will be included as well to analyze the effectiveness of previous interventions.

GENERAL INFORMATION – HONDURAS



Comment: Water For People have supported 93 water and sanitation projects in Honduras since 1998. The pilot monitoring trip assessed project functionality in 32 of these projects. This is one third of all the projects we have supported since starting work in Honduras. Communities were chosen through random sampling techniques, and as the data above suggests, we have data from a sample of projects supported each year since 1998. 29 of the visited projects are gravity-fed schemes with the source being a spring, and three of the projects were drilled wells with elevated storage tanks.



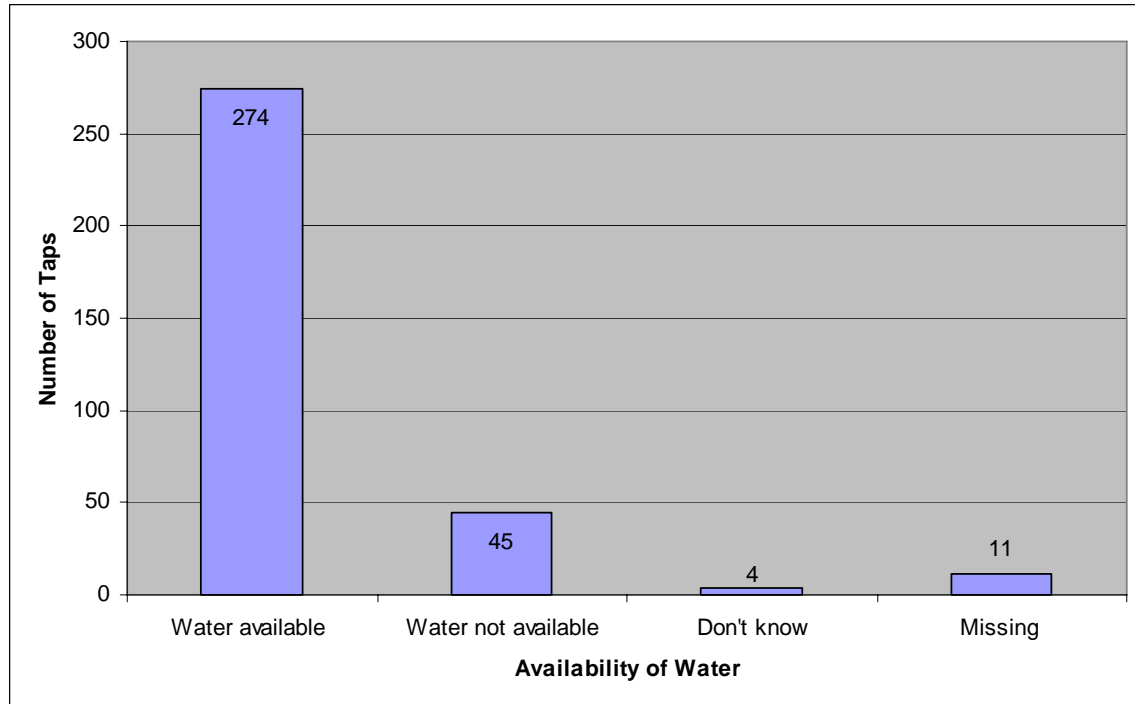
Comment: Seventy-two percent of the 32 projects visited were new projects initiated by Water For People and its partners. Twenty-eight percent of the projects visited were post-Hurricane Mitch rehabilitation projects (6 in 1999 and 3 in 2000), in which Water For People—Honduras provided only financing. These projects were relief projects and were not consistent with the Water For People model. This is important because these projects tended to be not as successful as other Water For People—Honduras interventions as will be shown below.

FUNCTIONALITY

A project is considered functional – the most basic and important goal of water projects – if:

- It provides water consistent (or better) than Government of Honduras regulations in terms of water quality (using *E. coli* as a basic indicator, accepting that there are limitations to all water quality tests and we are incapable of testing for everything). Honduran *E. coli* standards are zero *E. coli* per 1,000/ml. of water.
- It provides water quantities sufficient in terms of Government of Honduras regulations. Honduran rural quantity standards are 100 liters of water per person per day (~30/gallons/person/day).
- It consistently provides water of sufficient quality and quantity throughout the year (as defined above) to all households in a given area.

The following data offers insights into how Water For People supported initiatives are doing in relation to these goals.



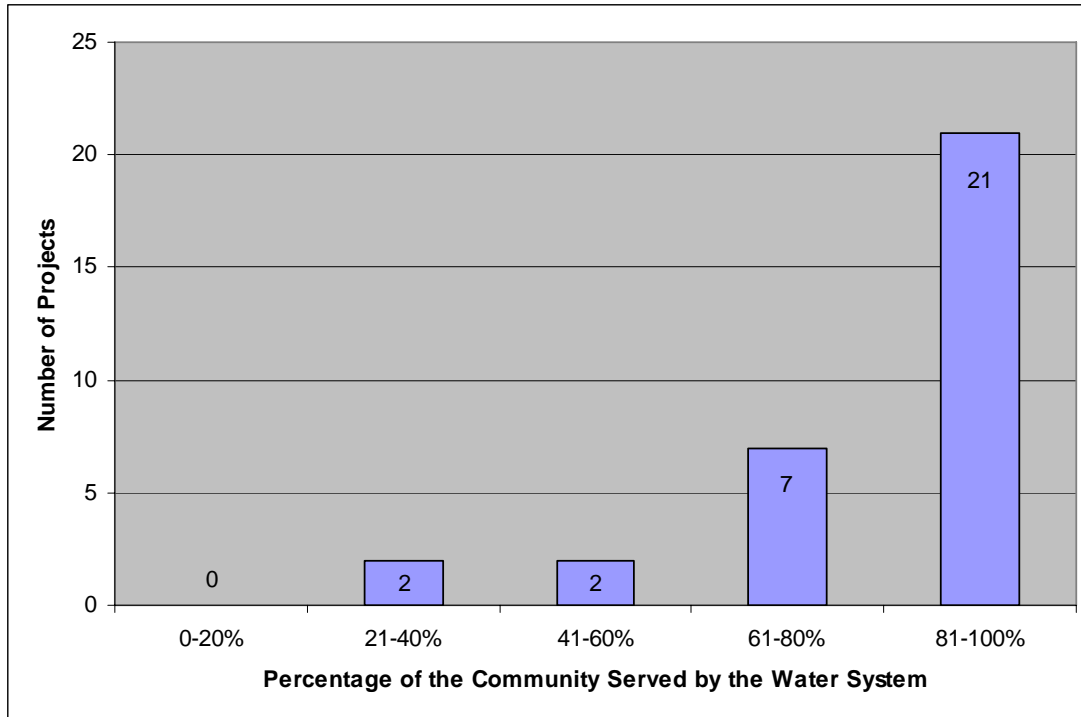
Comment: Eighty-three percent of 334 taps visited in the 32 monitored communities had water available on the day of our visit. This does not reflect quality or quantity of water available, but rather is an indicator of whether the system is functioning at all. In the future, this question will be modified to account for rationing, which is common, and does not mean that people do not have enough water. Only one of the 32 communities visited did not have water. This project was a rehabilitation project. The other communities were visited at times of the day when water had been turned off as part of a rationing scheme.

Importantly, 23 percent of the 92 taps surveyed at rehabilitation sites were not receiving water on the day of the visit, compared to only 9 percent of the 239 taps visited for new projects. This reinforces the view that water availability is enhanced when the Water For People model is followed, compared to rehabilitation/relief projects where the Water For People model was not followed due to urgent and overwhelming resource needs.

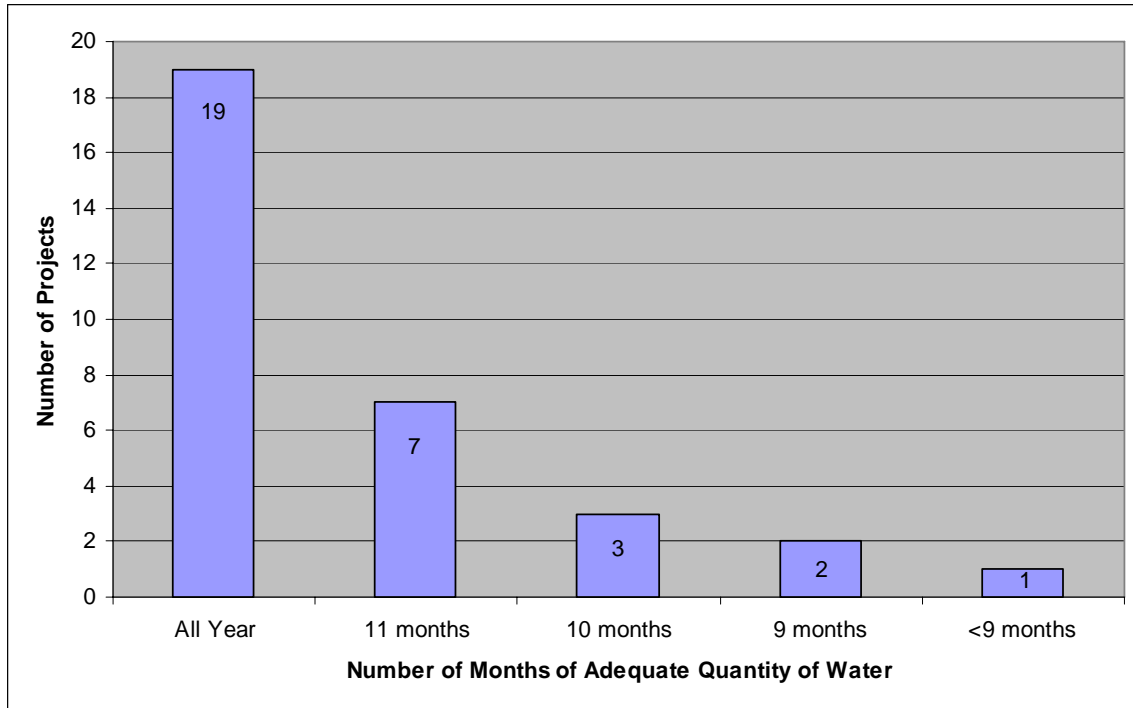
Also, in terms of years of construction, the results are as follows:

- 1998 – Only one project was visited and it was still operational.
- 1999 – 82 percent of projects constructed were operational at the time of visit.
- 2000 – 59.7 percent of projects constructed were operational at the time of visit (the worst results in terms of operability and year of construction).
- 2001 – 94 percent of projects constructed were operational at the time of visit.
- 2002 – Only one project was visited and it was still operational.
- 2003 – 77.6 percent of projects constructed were operational at the time of visit.
- 2004 – 95.1 percent of projects constructed were operational at the time of visit.
- 2005 – 100 percent of projects constructed were operational at the time of visit.

Projects supported by Water For People in 2000 were the projects that seemed most problematic, but these were also the ones that were most damaged by Hurricane Mitch. Future projects should be designed to better withstand future Honduran storms.

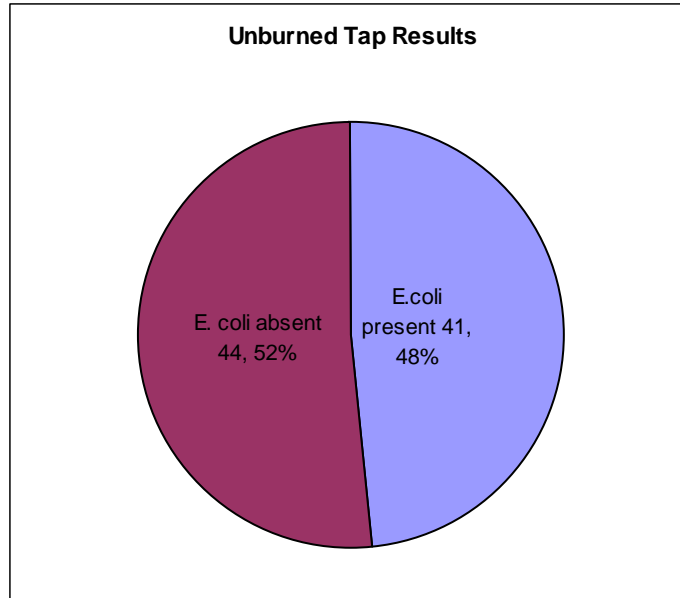


Comment: This question proved to be a poor one, and it needs to be revised. The key insight we are trying to gain is whether all families in a given village have access to the improved water system put in place with the support of Water For People—Honduras. For this question, respondents in all 32 communities had to choose from pre-set ranges of numbers or percentages (e.g. 20-40%, 41-60%, etc.). Such ‘close-ended’ response options allow respondents to more quickly and easily answer questions and to provide estimates when precise numbers are not known. However, this approach also limits what conclusions can be drawn from the data. For example, there is considerable difference between 80% of the community having access to improved water supplies and 100% having that access, and the current question format does not allow for differentiation between these scenarios. Future monitoring will break these numbers down more effectively as there is a considerable gap between 80% and 100% that needs to be better understood.

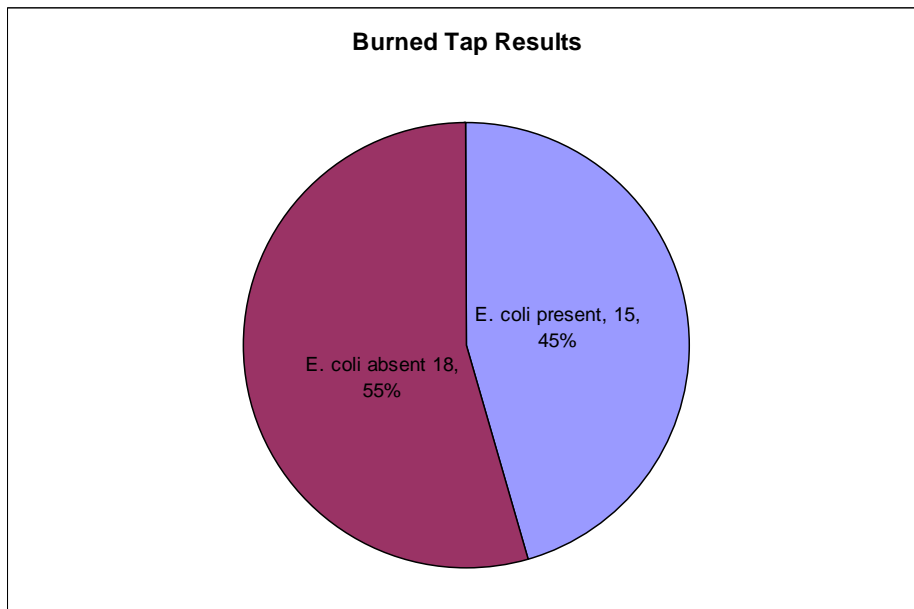


Comment: The monitoring teams interviewed 334 users in the 32 monitored projects. Respondents in 61 percent of the communities surveyed indicated they have sufficient water year round. Only one community system was inoperable, forcing residents to use unsafe water sources. Importantly, this project was a rehabilitation project and reinforces our view that Water For People is not an effective relief agency. The communities that did not have water year round overwhelmingly had water shortages in April (worst) and March, which coincides with the dry season in Honduras.

One challenge we face is how to match government quantity regulations with community perceptions of sufficient water. This data suggests that communities believe they receive enough water in 61 percent of the communities year round for their basic needs. It does not show if communities are receiving the minimum quantities stipulated by the government (100 liters/person/day). We are exploring alternative ways to measure water quantities at a system level and these more accurate results will be included in future monitoring data.

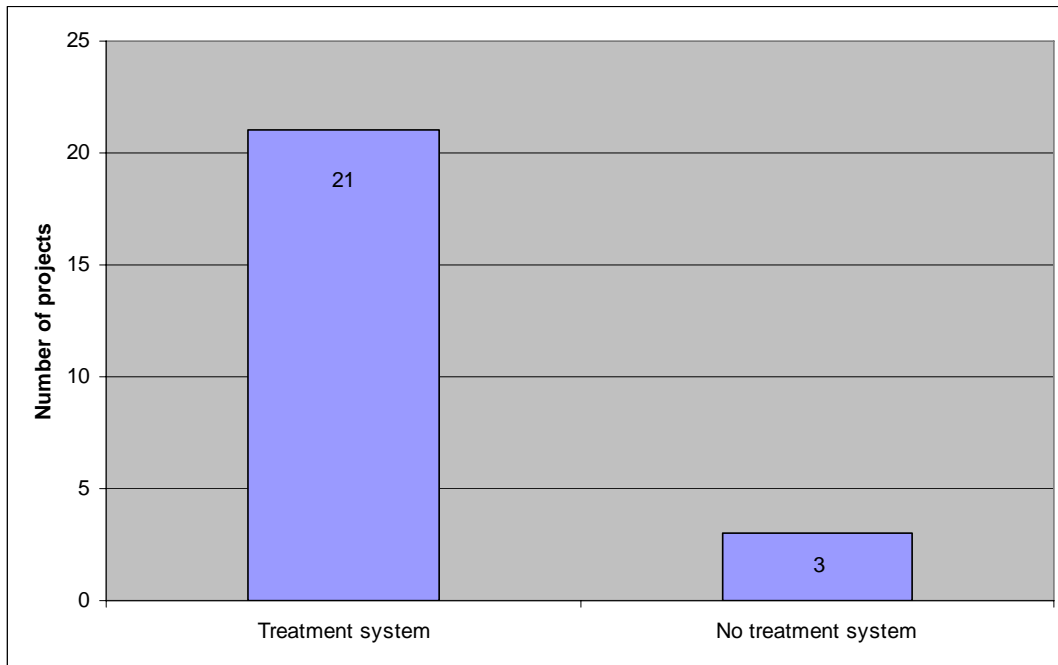


Comment: Unburned taps suggest that water quality problems occur at least at the tap level, but could be the result of an unhygienic tap, rather than a water quality problem in the system. The Government of Honduras states that 0 *E. coli*/1000 ml should be present in an improved water system. The data shows that *E. coli* was absent at the tap level in 44.5 percent of the 85 taps surveyed. The weakness of this test is that the quantity of *E. coli* present in the taps where *E. coli* was detected (41.48 percent) is unclear. Better data will be collected in the future to assess how significant a problem this is, but these results suggest that our work in Honduras needs to improve in this area.

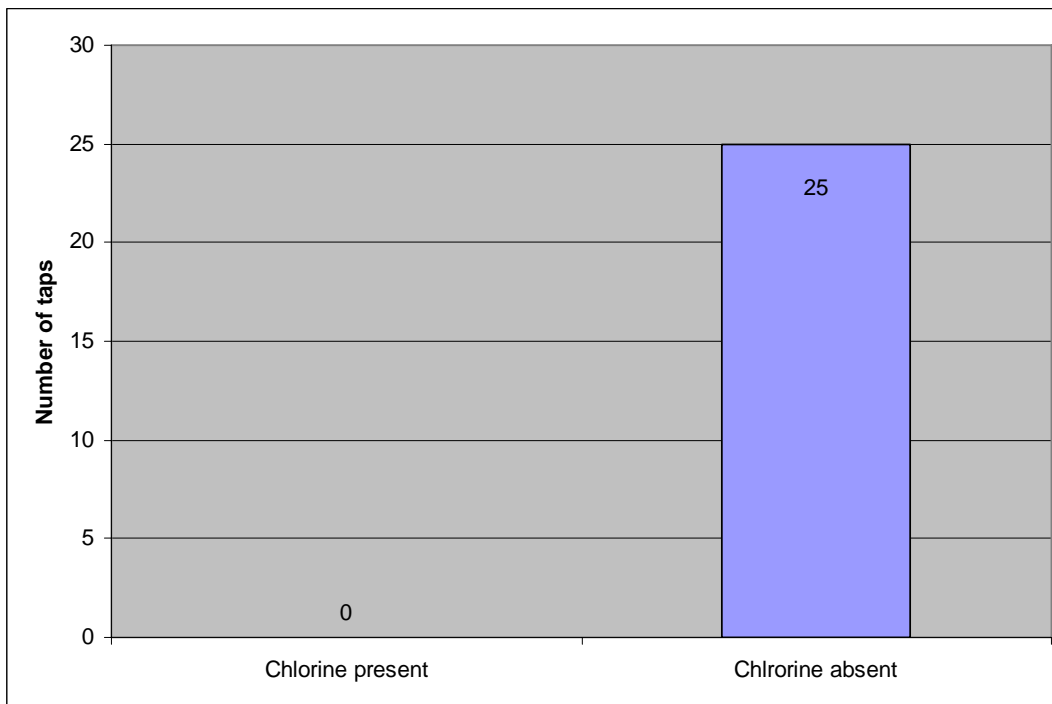


Comment: A burned tap cleans the tap, eliminating harmful bacteria prior to a test. This allows us to assess whether the problem of poor water quality is a problem that is system-wide, i.e., the contamination is occurring before it reaches the point of extraction (the tap). The results are slightly better than the unburned results, suggesting the

problem with water quality is not a hygiene-related problem at the tap level, but more likely a system-wide problem. While every effort was made to collect two burned and two unburned samples in each community, this was not always possible due to rationing of water systems making water unavailable or cloth/plastic filters covering the tap. In the future, testing for water quality will be improved.



Comment: This indicator explores whether water treatment systems are in place at the project site. Treatment in these cases is defined as disinfection. This question was added after a few days to clarify between whether there was a treatment system and whether it was being used. As such, there are 24 responses of 32 total communities. Hypo-chlorinators were found in all but three cases (21 communities with hypo-chlorinators, 3 without).



Comment: These results show that chlorine is not being used at all or is being used in insufficient quantity in the hypo-chlorinators. Our techniques for measuring this aspect of water quality will have to improve in the future as we need to be sure that all communities are sampled for chlorine and that a standard sampling procedure is followed. It should be pointed out that hypo-chlorinator use in Honduras is very low, as reported by the Water and Sanitation Program. This suggests that a solution may not be as easy as simple as “more training” or “awareness-raising.” Instead, Water For People—Honduras and its partners need to evaluate why chlorine use is so low at the project level, and explore what alternatives exist to chlorination in situations where households express a dislike of chlorinated water. It should also be pointed out that many communities did not have water quality problems *even though* they were not chlorinating or chlorinating properly, suggesting that environmental factors could mitigate the need for chlorination.

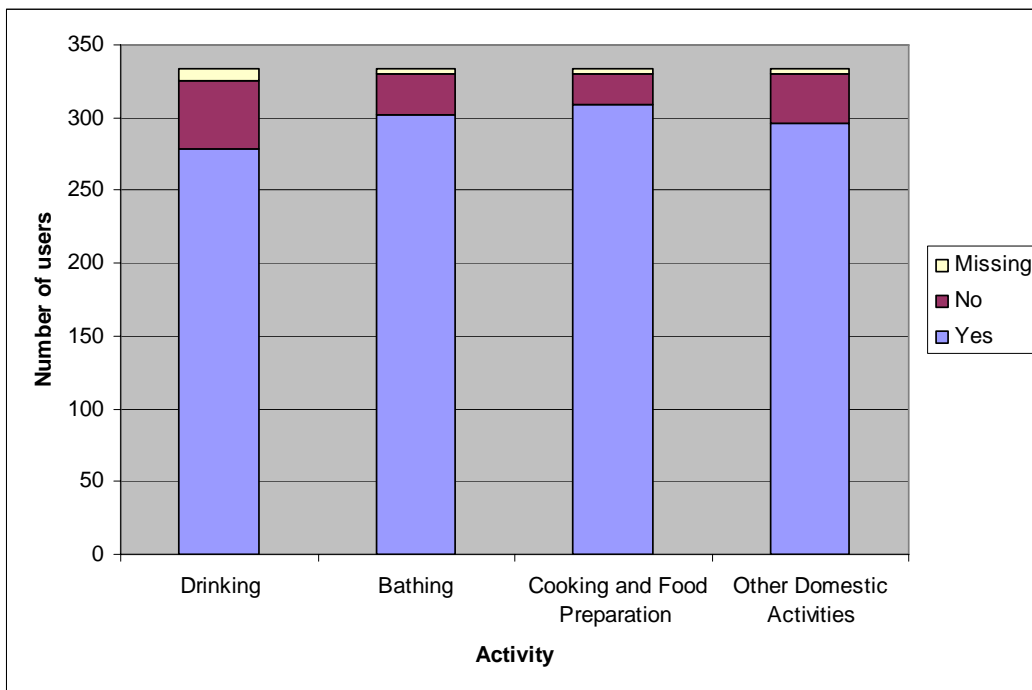
OVERALL RESULTS – FUNCTIONALITY

The results suggest that Water For People—Honduras has been extremely effective in the area of water quantity and needs to increase its understanding and efforts in the area of water quality. The results show that the majority of projects have acceptable (in terms of Government of Honduras regulations) levels of water quality and water quantities (at least in the eyes of households that are acquiring water from the systems), but that further water quality work is required to increase the percentage of projects considered “functional” by enhancing water quality results. Improvements in water quality will be sought through future monitoring work.

The results show that water is still flowing, and the percentage of projects operational for over five years is excellent. Importantly, Water For People’s results are considerably better than national results published by SANAA where only a fraction of projects are considered currently operational. This suggests that our approach of working with multi-

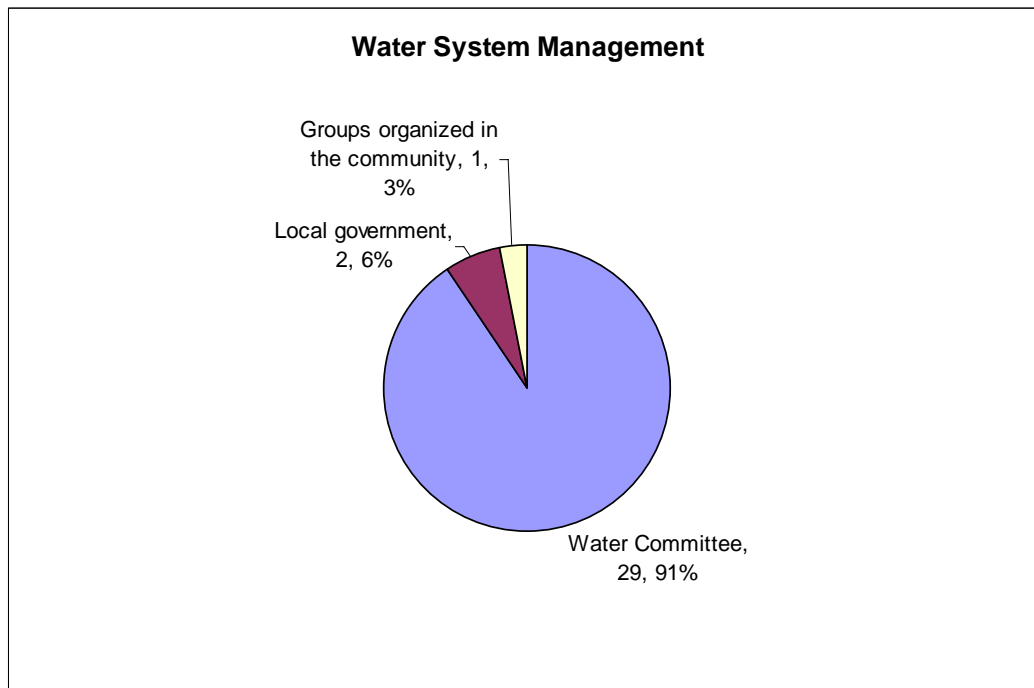
sectoral partners (government, local nongovernmental organizations and the local private sector) is an effective model.

WATER USE

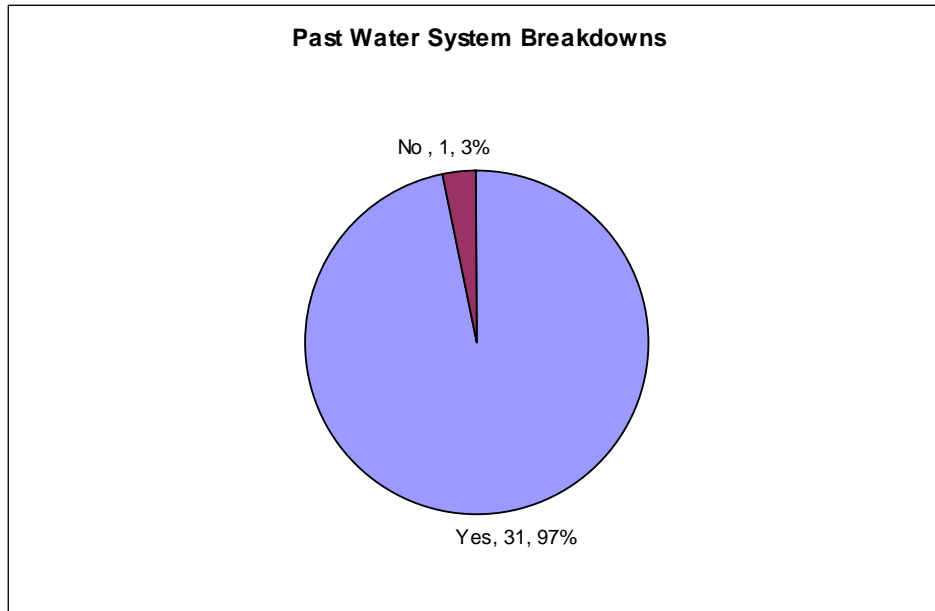


Comment: These results show that the vast majority of households visited (N=334) are using water supplies for the purposes for which they were designed. It does not appear that water from systems supported by Water For People are being used for productive purposes (agriculture, small scale industry, etc), although this could be explored further in the future.

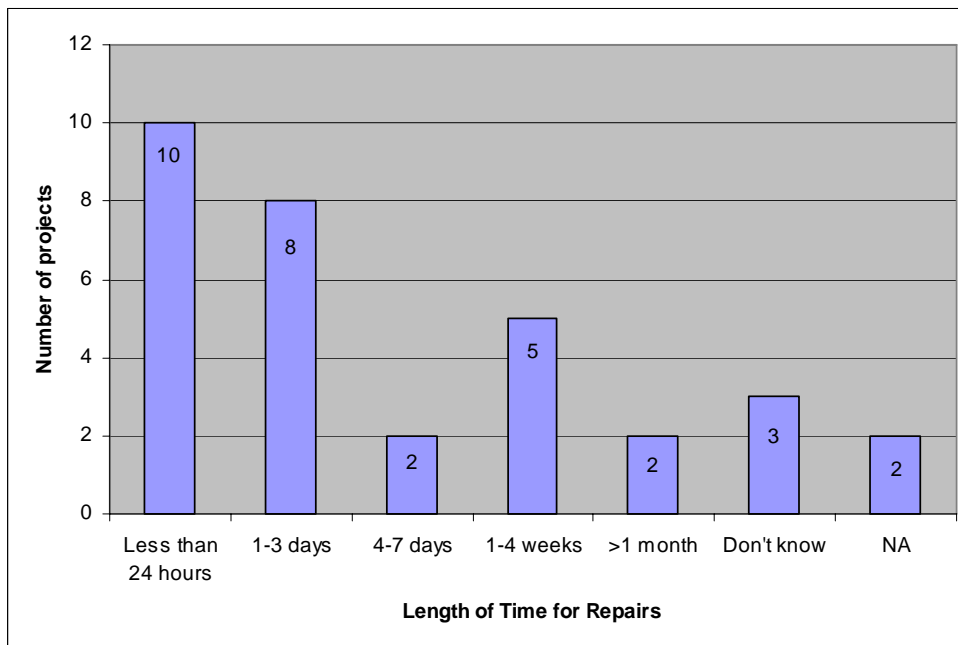
OPERATION AND MAINTENANCE: WATER SYSTEM LEVEL



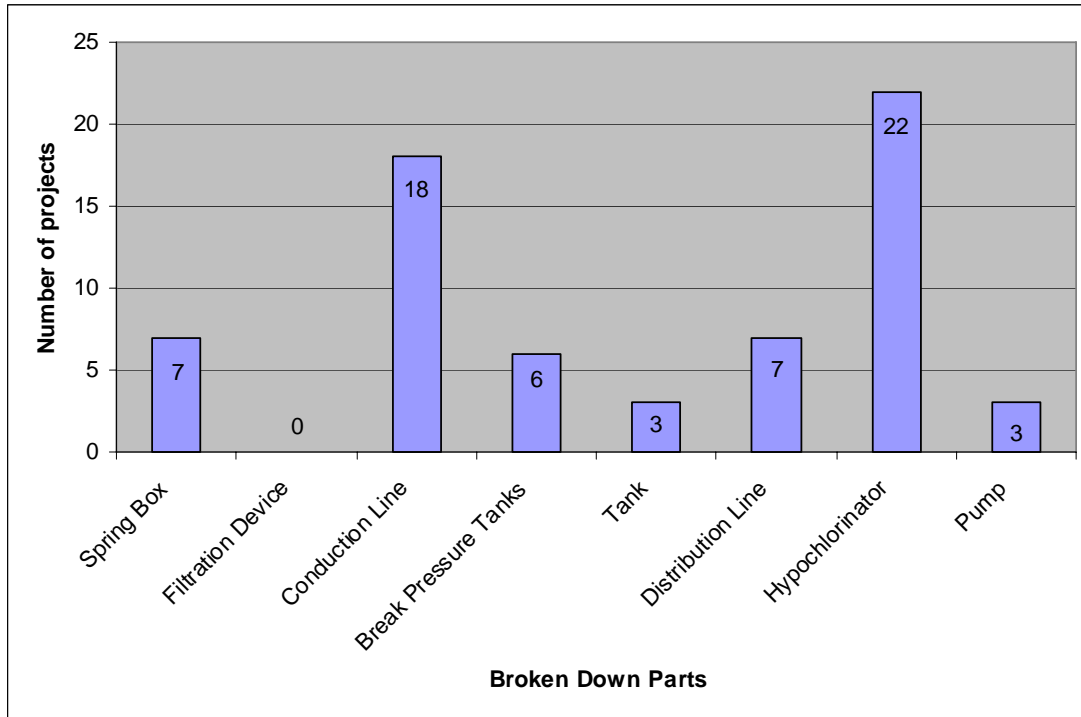
Comment: Local water committees remain the main managers of the 32 water systems visited, per Water For People—Honduras’s and its partners’ approach to community water supply. According to the National Framework Law of Water and Sanitation approved in 2003, water committees (Juntas Administradoras de Agua) are statutorily responsible for the operation and maintenance of their water systems, with support from the municipalities. Thus, Water For People—Honduras supported programs have already been strengthening these units that are now legally responsible for their water systems.



Comment: This is understandable as water systems break down and need to be maintained (N=32).



Comment: What this suggests is that down time for water supply is generally very short in all of the 32 communities visited. Sometimes major repairs are needed and this accounts for some of the longer down times reported, although it was reported that some repairs (like break pressure tanks) did not undermine water supply, so the system was not "down" even when there were technical problems. The challenge is to ensure that communities have access to support if there are technical problems or social conflicts that they are unable to address rapidly. Further research is needed in this area, but the results here are generally positive.

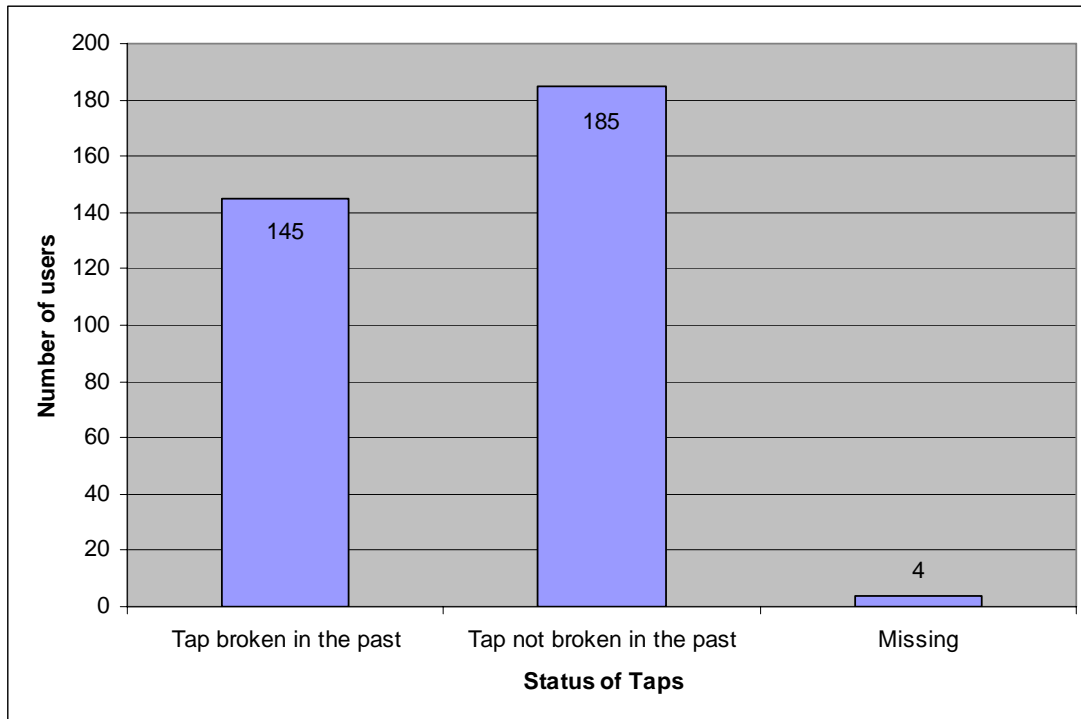


Comment: As indicated earlier, in 22 of the 32 visited communities, there are problems with hypo-chlorinators although 68% of these problems were fixed in less than 3 days. Importantly, problems with the conduction line (i.e. transmission line) are also regular (18 of 32), although this is to be expected since pipes were regularly laid unprotected in drainage ditches, which allows them to be washed away during storms. This issue needs to be addressed in the future.

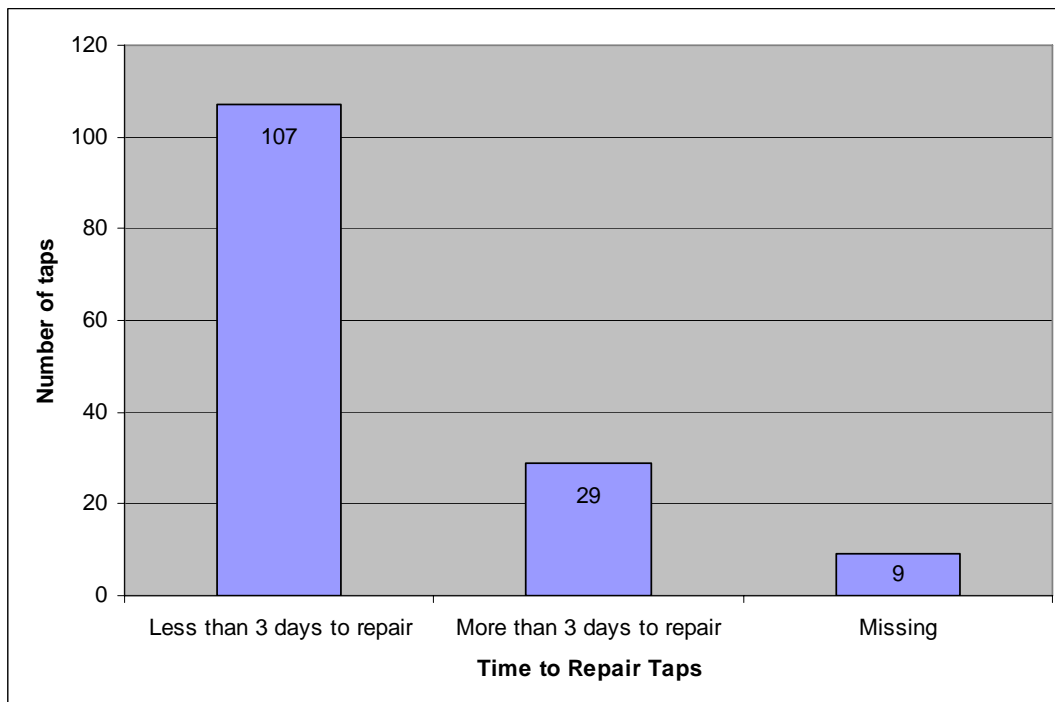
Comparison of Parts of Systems that have Broken to the Length of Times for Repairs					
Part of System Broken	<24 hours to repair	1-3 days to repair	4-7 days to repair	1-2 weeks to repair	> 1 month to repair
Spring Box (Total = 6 responses)	16.7% (1)	33.3% (2)	0% (0)	16.7% (1)	33.3% (2)
Filtration Device (Total = 27 responses)	33.3% (10)	26.7% (8)	6.7% (2)	16.7% (5)	6.7% (2)
Conduction Line (Total = 16 responses)	29.4% (5)	23.5% (4)	11.8% (2)	23.5% (4)	5.9% (1)
Break Pressure Boxes (Total = 6 responses)	50% (3)	33.3% (2)	0% (0)	16.7% (1)	0% (0)
Tank (Total = 3 responses)	33.3% (1)	0% (0)	0% (0)	33.3% (1)	33.3% (1)
Distribution Line (Total = 6 Responses)	16.7% (1)	16.7% (1)	0% (0)	33.3% (2)	16.7% (1)
Hypo-Chlorinator (Total = 21 responses)	36.4% (8)	31.8% (7)	4.5% (1)	13.6% (3)	9.1% (2)
Pump (Total = 3 responses)	33.3% (1)	33.3% (1)	0% (0)	33.3% (1)	0% (0)
The number for each response is indicated in the parenthesis					

Comment: The table above shows that the parts of the system that are generally broken for the longest period of time are the spring box, the conduction line, the tank and the distribution lines. The challenge will be to verify, in the future, how breaks with these parts affect the system as a whole. For instance, if the conduction line is damaged does that mean some communities are without water for up to a month?

OPERATION AND MAINTENANCE: USER LEVEL



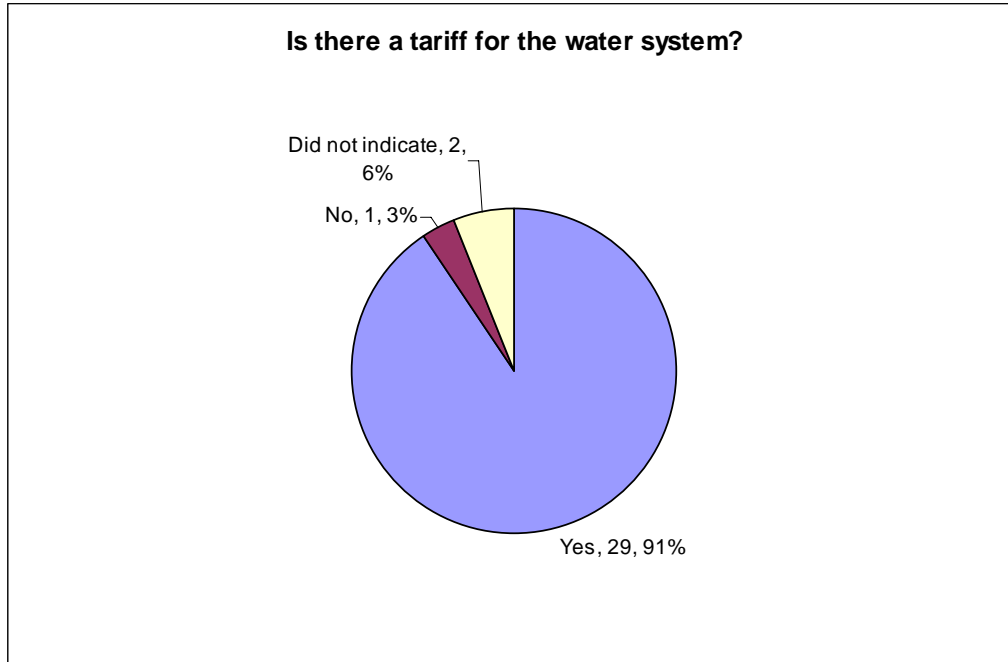
Comment: This is to be expected as taps need replacement (N=334).



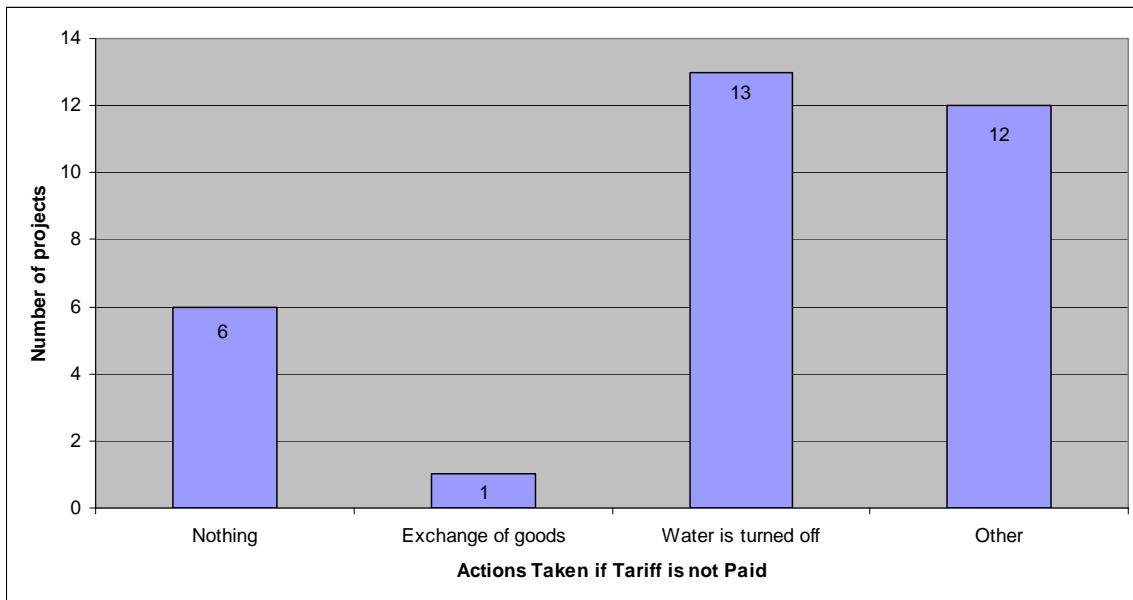
Comment: This suggests that, in most cases, households with broken taps can fix them quickly, which is positive (N=145). Projects that are rehabilitations/relief projects again are problematic. Thirty-two percent of the taps that had broken in projects defined as

rehabilitations took more than three days to repair, suggesting that the spare parts network that is so essential may not be fully in place. In contrast, only 16 percent of taps in “new” projects remain broken for more than three days.

FINANCE



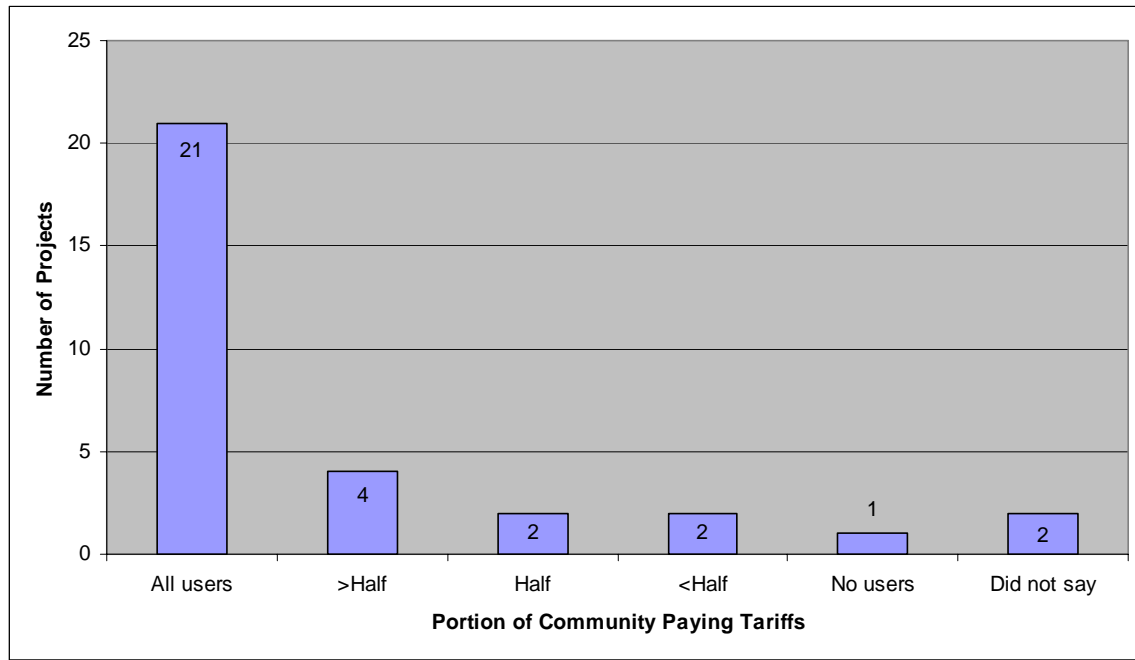
Comment: Twenty-nine of the 32 projects visited have water tariffs in place, which is very high. The one project that does not have a tariff system in place is from 2000.



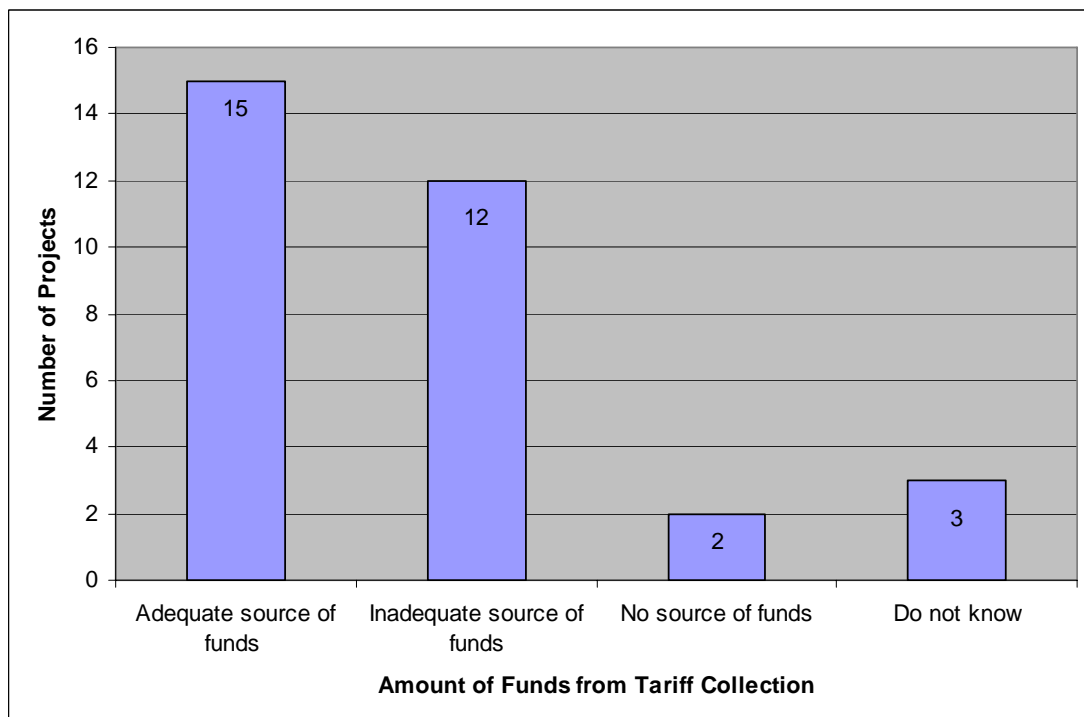
Comment: The most common response in the 32 communities to non-payment is the discontinuance of water service to offending families, although an almost equal number of projects replied “other.” The “other” answer needs to be reconsidered in future monitoring trips as the results could be informative.

It should be pointed out that this result is what the water committees say they do in response to non-payment, not what they have in fact done (which is something that needs to be improved in the monitoring program). Some committees claim they shut

people off for non-payment but there is little evidence of that. But further work is needed, especially to evaluate whether poor families are being cut off, and whether alternative strategies can be developed to ensure that poverty is not the reason for discontinuance of water service.



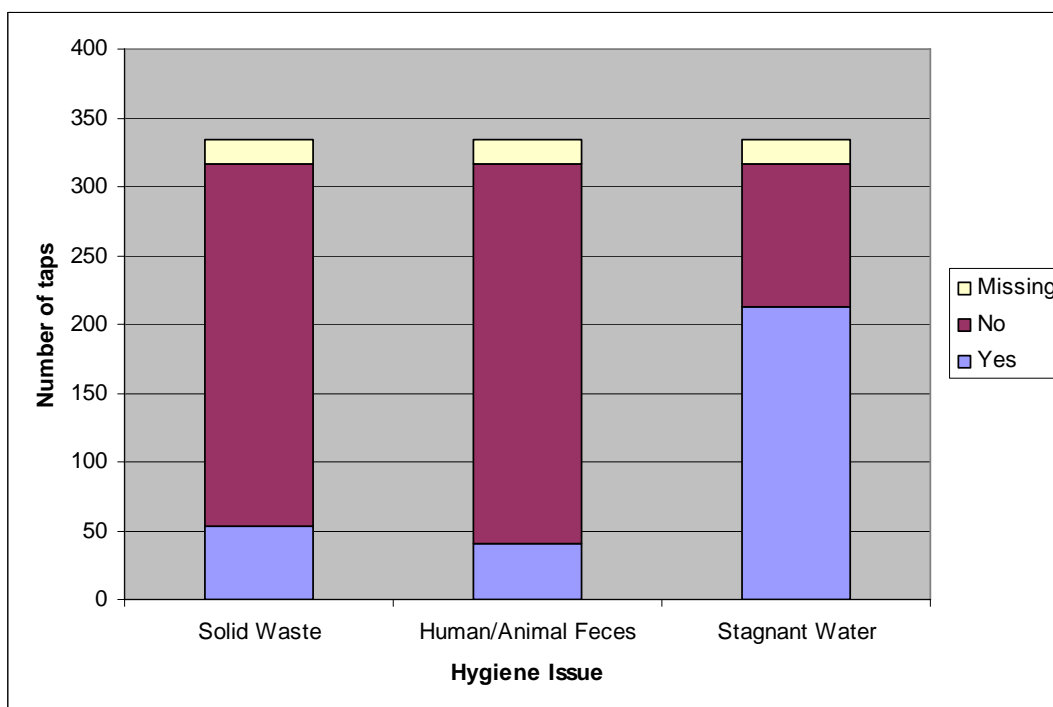
Comment: 66% of the 32 communities visited stated that all users pay tariffs. This is comparatively high, especially compared to continents like Africa where tariff payment is extremely low.



Comment: Of the 32 projects visited, 15 had funds adequate for the most expensive repair that would be required for their system. Twelve did not have adequate funds for the most expensive part, but this does not necessarily mean that there is anything wrong with these projects. Building a fund to equal the most expensive part of the system can take time, and these projects had not been in place long enough to let the community collect funds to this level.

In the future, mini “audits” will be done to further assess the quality of the accounts, but these indicators above are promising.

HYGIENE



Comment: A series of questions were focused on hygiene at the 334 taps visited. Volunteers were asked to assess whether solid waste, human or animal feces and/or stagnant water was evident and threatened household health. Hygiene results are generally positive but can be improved. The main message of the program has been focused on sanitary waste which, as the results show, is generally absent. This suggests that this aspect of the hygiene program in Honduras is effective.

The main problem is that many households have significant amounts of stagnant water around their taps that threaten human health. Part of this is a design issue as drainage ditches and other possible mitigation measures have not been included in projects. Future projects should include this in the design of tap stands at household level. But this also suggests that the hygiene education component of our support is not as effective as it could be since addressing stagnant water at household level is a message being promoted.

The data broken down by year does not seem to suggest that the results have improved with changes in our health/hygiene education support. Stagnant water was evident in:

- 55.6 percent of the taps visited for projects constructed in 1998
- 51.4 percent of the taps visited for projects constructed in 1999
- 66.7 percent of the taps visited for projects constructed in 2000
- 84.8 percent of the taps visited for projects constructed in 2001
- All (100 percent) the taps for the project constructed in 2002
- 58.6 percent of the taps visited for projects constructed in 2003
- 72.1 percent of the taps visited for projects constructed in 2004
- 33 percent of the taps visited for projects constructed in 2005

This suggests that the messages and approaches to hygiene education employed by partners are not effective at household level in relation to stagnant water. This will need to improve in the future.

CONCLUSIONS

In general, Water For People's multi-sectoral partner approach seems effective in the areas of:

- Overall operationality
- Community management

Challenges appear to center on:

- Linking hygiene education with real change at the local level, and addressing some design issues that could mitigate the stagnant water results
- Water quality – rethinking hygiene education and/or alternatives to chlorination?