

Research Project

The Impact of Water PODS to Increase Resilience and Self-Reliance of Vulnerable Populations Through Community-Led Provision of Water, Sanitation and Hygiene (WASH) Services and Appropriate Technologies

Final Report

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Science and Technology Innovations for the Base of the Pyramid in Southeast Asia (iBoP Asia)

By:

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and

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List of Acronyms

ARMM Autonomous Region for Muslim Mindanao

ASDSW A Single Drop for Safe Water

BIFA Banaba Integrated Farmers' Association

BSF Bio – Sand Filter

HH Household

iBOP Innovation at the Base of the Pyramid

LGU Local Government Unit

PODS People Offering Deliverable Services

PYAP Pag – Asa Youth of the Philippines

TO Training Organization

UP ISSI University of the Philippines – Institute for Small-Scale Industries

WASH Water, Sanitation and Hygiene

WBD Water – borne disease

WS Water System

LGSPA Local Government Support Programme for ARMM

Synthesis:

When water or sanitation initiatives are taken, improved wellness of the beneficiaries usually follows. With efficient and sustainable interventions, barangays can reduce incidences of water – borne disease to low baseline levels and a barangay can save from P600 to as much as P4,000 per resident per year.

A Single Drop for Safe Water developed the People Offering Deliverable Services (PODS) program to improve community health through access to clean water and sanitation, To ensure continued wellness, the PODS is not designed to just implement the technology correctly but also to create mechanisms to overcome the sustainability issues that face the implementing organizations. This is done by creating or strengthening of community-based water organizations.

In this study, we focus on two community-supply organizational models

- 1. Service provider tariff–driven community water systems offering provision of Level II (tapstands) or Level III (piped water to homes) water services
- 2. Product supplier offering water and sanitation products such as household water treatment. This study focuses on the production of Bio –Sand Filters as a micro- business

In general, the water systems PODS projects were more successful than the Bio – Sand Filter microenterprises in terms of number of people served and sustainability. The water systems PODS tend to provide better services and have better management capacity, which was easily recognized by the users. Despite the comparative success to the BSF PODS, there is still room for improvement to for PODS to expand their services to more target areas.

On the other hand, the PODS program needs to be modified for the BSF micro-business. Although most of the BSF PODS have been in operation under 2 years, their coverage is low compared to that of non-PODS BSF projects. This is mainly due to the focus of the non-PODS solely as an income generation project. Their organizational structure is entrepreneurial and focuses primarily on selling and installing units. Comparatively, the PODS model is holistic, in that PODS offers added services such as WASH Education and Advocacy, create and focus on a shared vision for community health and the organizational structure is more cooperative, arguably creating a lack of drive or focus.

This research study has identified several benefits

- 1. **PODS Training Manual Development** The findings from this research will be integrated into the PODS Training Manual and ASDSW Field Guide. From May 25-27, ASDSW hosted a brain-trust with PODS leaders, ASDSW Facilitators, investors and a UP ISSI researcher to synthesize the results.
- 2. **Improvement of ASDSW services** The findings have helped ASDSW to find gaps in the program and to identify solutions for improvement
- 3. Differentiate between service provision and product supply PODS
- 4. Learn from other organizations
- 5. **Actual documentation** of the benefits of water system and BSF implementation can now be supported by hard data and not anecdotal evidence
- 6. **Replication Potential-** ASDSW intends to replicate the PODS model around the country and A Single Drop (USA) will pilot the program in Uganda in the near future
- 7. **Identifying much needed support** Lupang Pangako, at the time of our visit was a non-functioning water system PODS. The community was waiting for a driller to drill their well deeper to service a Level II water system. During our interviews, it was discovered that there were several issues and deaths due to water-borne diseases. Since this visit, (ASDSW) returned to Lupang Pangako and worked with local stakeholders to re-drill the well deeper, install a new deep well pump, and restart the water system. Also, a comprehensive WASH seminar was conducted introducing water tests which helped the community discover that its open field defecation practice was contaminating the water. The community mobilized themselves to build toilets and use Hyposol (a chlorine based house hold water treatment additive) and safe water storage containers were introduced to the community

I. The Research Problem

A. Statement of the Problem

This research activity is on "The Impact of Water PODS to Increase Resilience and Self-Reliance of Vulnerable Populations Through Community – Led Provision of Water, Sanitation and Hygiene (WASH) Services and Appropriate Technologies". Specifically, this addresses the impact that community ownership, provision of demand driven WASH services and sustainable business models has when decision making and implementation is put back into the hands of the community.

B. Research Objectives

PODS and Non-Pods projects that were similar in scope were studied and compared. Interviews in regards to the following objectives were conducted with various stakeholders in each project area.

- 1. Measure health improvement.
- 2. Measure organizational capacity i.e. the organization's ability to plan, manage and maintain a water technology service project.
- 3. Measure community demand by observing WASH Education outreach strategies and behavior changes and measure the increase or decrease in the distribution of LGU funds towards WASH.
- 4. Examine the key consistencies in the projects that are now income generating vs those that have either failed, or taken a significant amount of time to start up.
- 5. Explore the challenges in LGU and civic engagement

II. Research Findings:
Organizations and Interview Respondents.

PODS Areas	Non PODS Areas
Banaba Integrated Farmers Association (BIFA)	Placer, Masbate (BSF)
Datu Abdullah Sangki, Maguindanao	Placer, Masbate
Bio Sand Filter Producer	Biosand filter Producer
Trained late 2007	Trained Mid 2006
Still Functioning	Barangay Officials and local NGO
Jan San San San San San San San San San S	No further filters produced
Iraya Water and Sanitation Association (IWASA)	Tariken, Sultan Mastura, Maguindanao (Water System)
Buhi, Camarines Sur	Tariken Sultan Mastura, Maguindanao
Level II/III Water System for whole Barangay	Tariken Community Organization
Trained/Implemented Late 2008	Level II Water System
Fully Functional	Trained/Organized in 2008 under LGSPA
,	Fully Functional
Kalangkwasan Siaosio East – West Water Association	Tagumpay, Roxas, Palawan (Water System)
(KASEWWA)	Tagumpay, Roxas, Palawan
Sual, Pangasinan	Tagumpay Water System Association
Level II/III Water System for 2 barangays	Level II Water System
Trained/Implemented Late 2008	Organized in 2003 – 2004
Fully Functional	Semi Functional
,	Facilities needs rehabilitation
Aromar PODS	Dumarao, Roxas, Palawan (Water System)
Caloocan, NCR	Dumarao, Roxas, Palawan
Biosand filter Producer	Dumarao Water System Association
Trained Early 2009	Level II Water System
Non – Functional	Organized in 2008
Transitional	Fully Functional
Ibayo PODS	PAYP
San Mateo, Rizal	Pamplona, Camarines Sur
Biosand filter Producer	Biosand filter Producer
Trained Early 2009	Trained late 2006
Semi Functional	Youth Group trained by Peace Corps Volunteer that was
	trained by ASDSW
	Fully Functional
Bacungan Coastal Development Resources Association, Inc.	,
(BCDRAI)	
Bacungan, Puerto Princesa City	
Biosand filter Producer	
Trained Mid 2009	
Functional	

Aeta Belbel Multi – Purpose Cooperative (ABMPC)	
San Agustin, Iba, Zambales	
Level II water system 1 sitio	
Trained/Implemented mid 2008	
Non Functional	
•	
Punang Samahang Magtutubig (PSM)	
 Sofrino Española, Palawan 	
Biosand filter Producer	
Trained Mid 2009	
Functional	
KapimpiSultan Kudarat (PODS)	
 Sultan Kudurat, Maguindano 	
Biosand filter Producer	
Trained Late 2007	
Non Functional	
Nabitasan PODS	
Iloilo City	
Biosand filter Producer	
Trained Early 2008	
Non Functional	

A total of 1,159 interviews were conducted:

- Organization Members, ie. PODS/non PODS respondents 55
- User Respondents 360,
- non User Respondents 700,
- LGU Respondents 34,
- Training Organization Respondents 10.

Table 1.a. Number of Respondents by Project Categories

Categories	Number									
	Implementing Organization User		ser	Non User		LGU		TO		
	PODS	Non PODS	PODS	Non PODS	PODS	Non PODS	PODS	Non PODS	PODS	Non PODS
BSF	28	4	76	79	372	110	14	5	2	2
Water System	11	12	102	103	83	135	8	7	0	6
Total	39	16	178	181	355	245	22	12	1	8

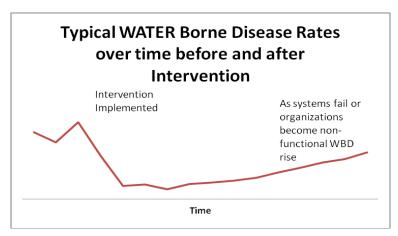
Typical Respondent characteristics

1 production and action a						
Sex	Age	Occupation				
Male – 548 (47%) Female – 611 (52%)	30 – 39: 306 (26%) 40 – 49: 275 (23%)	Farmers/Fishers – 407 (35%) Housewives – 305 (26%)				

Positions/Designation			
PODS	Non PODS	LGU	TO
Members, Treasurer	Plumber / Technician	Barangay – Barangay Captain, Councilor	Executive Directors
		Committee on Health	Project Managers
		Municipal – Planning and Development	
		Coordinators, Health Officers	

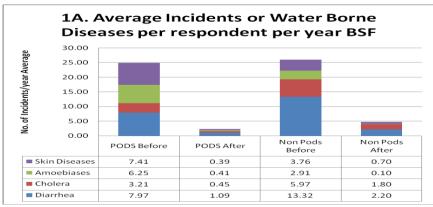
All BSF projects were funded by donors with the condition that the community counterpart would be labor.

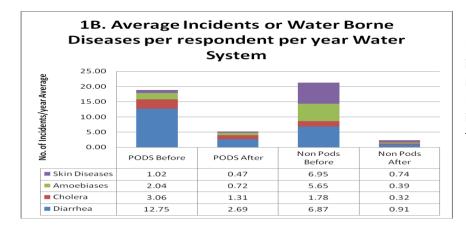
Objective 1 Impact on Health



Anecdotal evidence shows that any intervention in relation to water and sanitation will substantially reduce the impact of water borne diseases (WBD) for the users of the intervention. However over time the rates start to increase as the intervention begins to fail or breaks down or is used incorrectly.

All of the projects studied are less than 4 years old. Hence only the short term health impacts for users can be measured. Note that the following charts show significant reduction in water borne diseases. However the long term health impacts are not yet available.



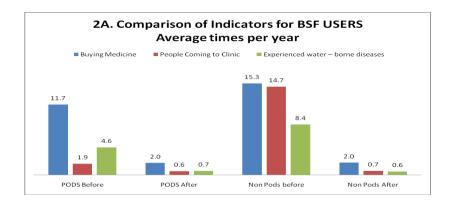


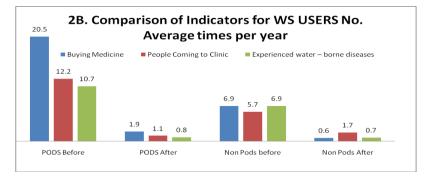
It was found that the health impact was significant and does not depend on PODS or non – PODS intervention, the pre intervention level or even the type of intervention.

Charts 1A and 1B show the changes in incidents of WBD per year as experienced by the users before and after the introduction of the intervention. All interventions reduced WBD from between 20 to 25 incidents per year per person to less than 5.

To validate this, the users were asked about some common indicators.

- Buying of Medicine (water borne disease related)
- Clinic Visits (water borne disease related)
- Incidences of Water Borne diseases





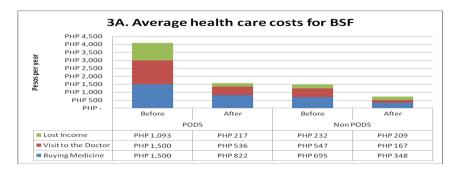
Tables 2A and 2B compare these indicators. Once again, regardless of the implementation system, type of intervention or the starting point the WBD incidence is reduced to a range of 0.6 to 0.8 per year. Note that all of the indicators move towards a base line or what appears to be a minimum rate

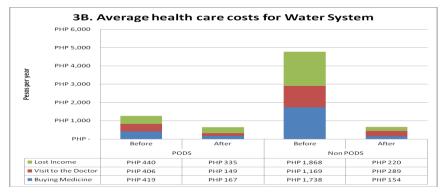
Also the pre intervention indicators vary widely and this is dependent on:

- Ability of the community to buy medicines
- Access to clinics
- Presence of other health issues

Although there is a cost for BSF and water systems, the reduction of WBD incidence will substantially reduce the workload of clinics and the amount of money spent on medicines.

Poverty is a symptom of inadequate water and sanitation facilities. Water borne diseases not only cost money due to the purchase of medicines and the need to visit the doctor but lost opportunities to generate income and the costs to visit the doctor.





Charts 3A and 3B show that there is a substantial savings and increase in income. For all of the users this net change in financial costs is between P600 and P4,000P per person. For a barangay of 1,500 people this

represents an annual increase of barangay net wealth of P900,000 to P4,000,00 per year.

With the indicators listed above, the baseline income and access to doctors and medicine have a substantial effect on how much money can be saved. Note that the financial impacts before the implementation of the water systems are very different between the PODS and Non-PODS areas, however after implementation the resulting financial impact of water borne diseases is the same.

The BSF does not show this as the lost income portion for the non – PODS before and after was very low and stayed the same. However the medical costs were reduced by approximately 50% both for non PODS and PODS BSF users.

Objective 2: Capacity to Plan and Manage as well as transparency and good governance

As indicated in Objective 1 the effects of the health benefits are dependent on the long term sustainability of the organization that provides the WASH service. In a 1998 study by LWUA (Pg 13, Draft Technical Working Document Philippine Water Supply Sector Roadmap) 50% of rural water and sanitation organizations fail and 90% of the rest cannot expand their services. This is due to many factors including:

- Poor service
- Lack of trust
- Lack of capacity
- Inadequate resources and revenue to sustain services
- Limited or non-existent planning

PODS and non – PODS were compared regarding:

- Status of Services within the community
- Various attributes that could contribute to long term sustainability of the organization

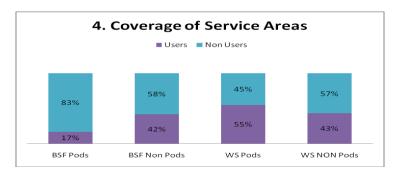
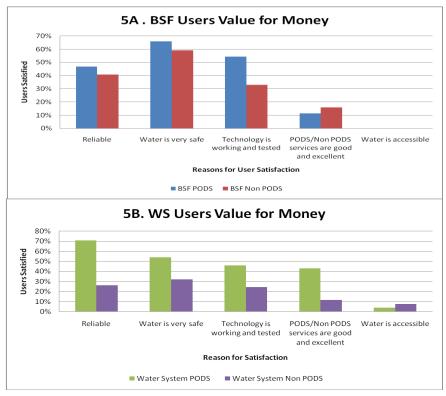


Table 4 shows that the BSF PODS provide the least amount of services in their target areas, but the PODS provides slightly better coverage for water systems. BSF organizations are product suppliers while water system organizations are service providers. This lends itself to two different organizational models. Product suppliers

are more entrepreneurial while community service providers are more cooperative in nature

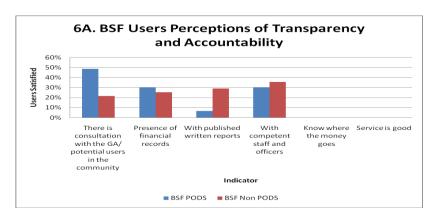
The following tables look at the different aspects of the organizations as listed above.



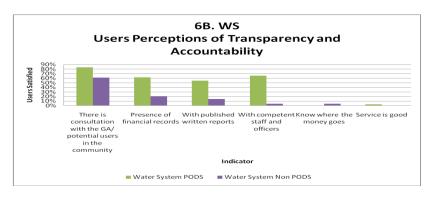
Charts 5A and 5B show users' reasons for their product or service satisfaction. Chart 5A shows that PODS and non PODS users are both pretty much equally satisfied with their product. However, chart 5B showed PODS users are much more satisfied with the services they received from their water suppliers than their non PODS counterpart.

Trust is much more important for the water system organizations than for product

suppliers. The BSF supplier generally provides a one – off service and the relationship may be over if no follow – up is conducted, or after follow – up is conducted and the BSF user is satisfied. The water system organization, on the other hand, is looking for a long term relationship with the customer and so accountability and transparency are important. Charts 6A and 6B compare users' perception in several categories. The BSF organizations show that the PODS maintain better consultations with the community, but despite this, referring back to chart 4, the area coverage is still low, indicating that consultations are not necessarily followed by increase in area coverage within the target community.



Tables 5B and 6B also shows that the users believe they get better value for their money and they have more confidence in the organization.



In Chart 6B the PODS water systems outranks the non – PODS in several areas. Community consultation, competence of staff and financial transparency are all very different between the two implementation methods. Public trust will help sustain the organization as payment of fees will be on a more regular basis, as well as

the ease in mobilizing for repairs or expansion work.

Planning is a must for long the term success of any organization. To assess the status of all the organizations various implementation stages of the plans were compared. Higher rankings were given to those plans that were being implemented than those that did not exist or were deferred. This was compared on an organizational basis.

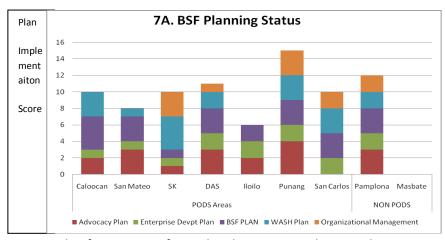
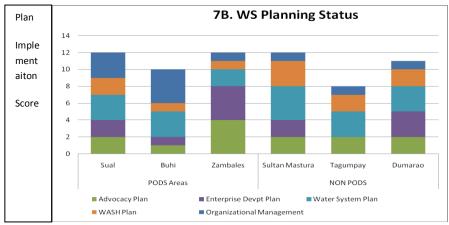


Chart A showed the correlation between status of planned implementation to the coverage of the filters within the target communites. The two most successful PODS BSF producers are DAS and Punang while the most successful Non PODS is Pamplona. All 3 have organizational management plans, implemented BSF Plans and the total is above 10. Note that the scoring for each plan was on a

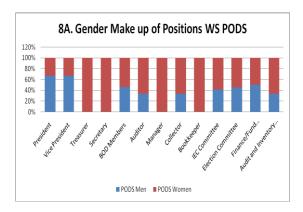
scale of 0-4, 0 = not formed and 4 means implemented



Comparison of the PODS to non-PODS based on status of plan implementation showed that PODS organizations have implemented more of their plans with ranking of 10 and above. However in the PODS projects the 2 functioning water systems, Buhi and Sual also have implemented their organizational

and water system plan. Zambales was non-functional and even though it overall scored high its organizational management plan water system plans ranked low. All 3 of the non-PODS organizations had low organizational management plan rankings. Note that a more in-depth look at the Tagumpay system showed that it is not functioning at its design capacity

The process of organizational formation and sectoral representation are also critical to long term sustainability and the creation of public trust and accountability. Many existing organizations are appointed by local leaders (or made up of local leaders) and the power positions are generally dominated by men.



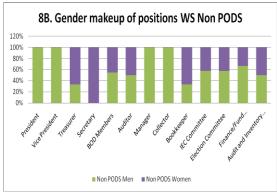
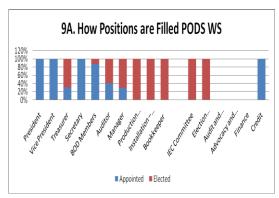
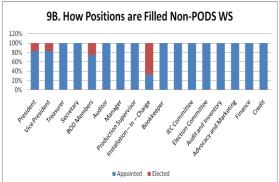


Table 8A and 8B directly compare the ratio's of men and women in various positions. The PODS implementation method shows that women not only make up a larger part of the PODS but they also are in power positions.





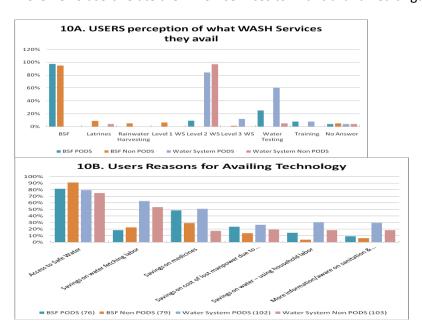
In the charts above there are more elected positions within the PODS structure than in the non PODS. Tables 8 and 9 clearly show a difference of the organizational structures between PODS and Non-PODS and this correlates to the perception differences noted in tables 5 and 6.

Objective 3 Demand for WASH Within the community

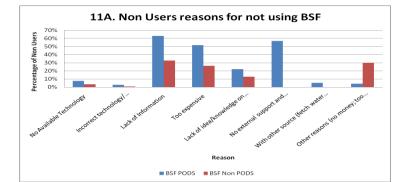
Even though community residents say that "Our Problem is Water" they do not demand WASH services which are mandated to be supplied by the LGU. When the water issue is resolved and it involves payment, more often than not the community reverts back to its old sources to save money, or do not invest in new technology.

The PODS model seeks to increase demand for WASH services. The ASDSW has a project development process that is much more geared to creating this demand and since it was developed after some PODS were already developed, it was only done with one of the PODS surveyed (Sual, Pangasinan). This program was pioneered in the ARMM provinces with a different program and directly affected demand in Sultan Mastura.

In chart 10A the users were asked what services they availed of, not just from the organization being compared but other service providers. Note that of course the level 2 water systems and BSF are the highest as these are the organizations that were surveyed. However, water testing by the PODS was also being used and that in the water systems some of the PODS organizations were installing level 3 connections (ie. expansion of services). In chart 10B the reasons for availing of such services are detailed. More PODS users relate the WASH services to financial and health gains.



Non – users of the technologies were interviewed to get the reasons why they do not avail of these services. In Chart 11A the failure of the BSF PODS is very apparent. The three categories where PODS



failed were 1) marketing related, 2) not enough information and 3) too expensive. PODS failed to prove to the non-users that their investment is cost effective. In Objective 1 you can see that it is a

worthwhile long term investment for any resident. However the cost structure was not developed relative to the financial capacity of the market or payment plans developed by the organization. The non – PODS organizations approached LGUs and outside funding sources to subsidize filters for residents making it affordable or free. The PODS did not do this. If LGUs understand the savings on their medical services then this becomes a viable investment. Once again this is marketing and entrepreneurship which the current PODS model did not stress, but is currently being integrated through the development of the PODS Field Guide.

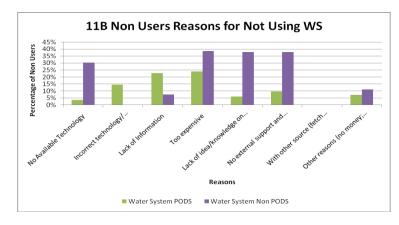


Chart 11B shows that the Water System PODS does a much better job marketing when compared to the non – PODS. Cost is the main reason why PODS non – users do not avail of its services. However, this can be improved by looking at cost structures, modifying its pricing (i.e. installment or subsidy) and improving marketing or advocacy efforts, possibly using the information from Objective 1

Objective 4 Income Generation Aspects

None of the organizations that were surveyed have been able to increase their assets. The only organization to provide a steady livelihood for its employees was the Pamplona Pag – Asa Youth of the Philippines (PYAP). It works with the LGU and Rotary clubs supplying and installing filters. Even though they make enough money to pay for materials and labor they are still struggling to put together a cost structure that will allow them to grow as an organization.

On the PODS side, Banaba Integrated Farmers Association (BIFA) has periodically made enough money to support its staff but this effort has not been sustained. Both the water systems of Buhi and Siasio are collecting some fees. However, these have only been sufficient to provide token money for its employees.

The BSF PODS module needs to be improved to:

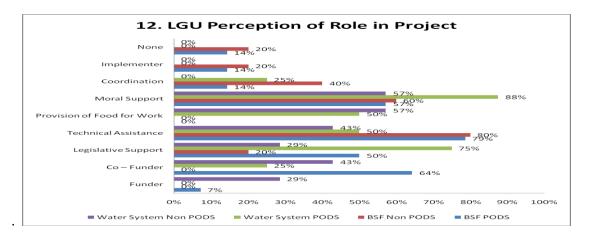
- Identify the more entrepreneurial participants
- Reduce the number of participants to streamline the decision making process
- Develop the marketing and costing plans so that it can be profitable, developing markets rather than waiting for the market to come to them.

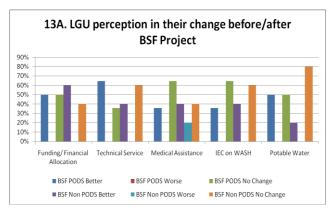
The water system modules need to work on marketing and ensuring that there are more ways of making people accountable and paying regularly. Social marketing must be strengthened by advocacy and education.

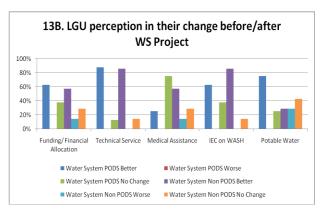
Objective 5 LGU and Projects

Municipal LGUs are mandated by law to provide WASH services to their residents. However many do not do so due to lack of demand or ability to service that demand, if it exists. The LGUs were asked what they thought their roles should be in WASH projects and their responses are (Chart 12):

- PODS organizations should advocate and partner with the LGU to provide WASH services.
- Water System PODS have increased political will in their areas as represented by moral support and legislative support.
- The technical role of the LGU is perceived low for water systems and high for BSF. This is a surprising result as traditionally the LGUs are water system implementers. However, there is a high technical failure rate as design capacity of LGUs are limited. This marked difference may be due to the respondents' grasp of the simpler BSF technology versus the complexity of water system design.
- Funding and partial funding are not perceived as an LGU responsibility despite the legal requirement to do so







Charts 13 A and 13B shows that the LGU perceived that their capacity either increased or did not changed at all after WASH projects.

Overall the PODS has to work more closely with the municipal LGUs and establish a working partnership to provide WASH services. LGUs should not be allowed to refrain from their responsibility and it is the organizations duty to advocate and work with the LGU. Note that with some non-PODS, LGU service actually declined in some areas.

III. Project Implementation and Management:

Once the project funding was approved ASDSW then work with ISSI in developing the methodology and started the data gathering process:

Change in Project Orientation

Objectives were determined and there was a significant redesign of the project. Originally, the
project is a comparison between failed and successful PODS with technical only trainings.
However, ASDSW wanted to use this study to identify the PODS strengths and weaknesses that it
decided instead to compare PODS with other projects with differing implementation methods. This
also identified failing PODS. All of the projects had to be about the same age along with similarity
in scope for services supplied.

Data Gathering

- Questions were designed in conjunction with additional members from ISSI and this was tested in Barangay Macarascas, Puerto Princesa City, Palawan. Changes were then made as needed and the interviewers were deployed in the field.
- Data gathering teams included 2 from ASDSW with 2 from ISSI along with local volunteers. Project was managed by Ms Mary Jun Nicolasora from ASDSW with additional encoding and tabulating done by additional ASDSW staff.
- Data was gathered from the non-Palawan sites before Christmas. However in November 2009 the security situation in Maguindanao required the removal of data gatherers.
- In 2010, two separate attempts were made to complete that data gathering in Maguindanao

Analysis

- At the completion of the data gathering process this was all tabulated and analyzed in different ways to compare the implementation methods relative to the objectives.
 - o In some cases all non-PODS and PODS were compared as a whole.
 - In other cases organizations were compared.
 - Analysis was done in such a way to compare like with like so that the number of respondents did not affect the results.
 - Because of the relative implementation time frame and age of the projects it is difficult to determine its long term effectiveness, so characteristics were identified that could lead to long term community acceptance of the water system administration or promote the spreading of the BSF technology.
 - o Immediate health related affects were analyzed to determine if the implementation methods impacted on the direct implementation of the technical side of the project.

Other related activities

- PODS Manual development. A workshop was held in Palawan with PODS participants, facilitators, ISSI staff and investors. This information is being used by a technical writer who will develop an enhanced PODS manual.
- Issues at the PODS site in Zambales were addressed and water system was rehabilitated.
- Currently developing project for one of the sites in Roxas, Palawan.

Financial Issues

- Though not reflected in the financial report there was a significant counterpart from A Single Drop for Safe Water for staffing this project to cope with the large amount of data that was collected.

IV. Project outputs and dissemination:

- 1. This report will be uploaded to the ASDSW website and result will also be reported to ASDSW partners and beneficiaries via the news letter which will be out this June.
- 2. Initial result of this activity was all ready shared with the staff of the organization and has become an essential part of the on going PODS module development.
- 3. Photos and videos will be uploaded to the internet by Jun
- 4. This report will also be printed for circulation

Note that iBOP will be acknowledged in all reports and related publications.

V. Impact:

This research has provided ASDSW several benefits. Among these were:

- PODS water system in Iba Zambales was non functional during the study period and deaths were recorded due to water borne diseases. Because of the iBOP research, ASDSW searched for ways and means to provide the community with clean and safe water. Other activities were also accomplished:
 - a. System is functional since May 2010 courtesy of Zambales Department of Public Works and Highways (DPWH).
 - b. WASH orientation and WIn survey conducted in Lupang Pangako as a response to the issues on incidence of water borne disease
 - c. Community has accessed Jerry cans and Hyposols from Zambales Provincial Health Office (PHO)
- 2. ASDSW received a request for assistance from the Barangay Council of Tagumpay and will work with the community to develop proposal and program of work to improve system and organization
- 3. ASDSW has just finished with its PODS module development workshop attended by investors, participants, ISSI and facilitators last May 25 27 in Puerto Princesa City. And findings of the research are being used to the on going PODS Module development.
 - a. Research result provided insights for ASDSW in terms of which part of the PODS program should it enhance or improve particularly on the BSF areas like giving emphasis on the training and development of an entrepreneurship for this project.
 - b. ASDSW also realized 2 approaches towards project implementation, that of product and service categories.
- 4. Actual documentation of the benefits from installing water systems and BSFs can now be supported by hard data and anecdotal evidence.

VI. Recommendations

Due to our workload during the project, we were unable to fully partake in the benefits that this opportunity provided for ASDSW. Our schedule was severely impacted by outside events (Maguindanao Massacre Nov 2009) and we were thankful for the extension that was allowed by IBOP. However, the communication path and procedures for requesting extensions were not clear and approval was not received until after the original deadline had passed.

Due to the complexity of the research and the bulk of data, the length of the report reduces the detail of our analysis. We were able to state key points however, there are some issues that we have not touched in this report, however have been examined in depth and used for further development of the PODS process.

Appendix

A. Definition of Terms

<u>PODS</u>: (People Offering Deliverable Services) refers to the implementing organization assisted by ASDSW

Non – PODS: refers to the implementing organization not assisted by ASDSW

Users: refers to the members of the community that receive WASH services

Non – Users: refers to the community members who do not avail of WASH

Health – measured in terms of the reduction on water – related diseases,

Behavior Change (change in practice e.g.: Water source from open to close, non treatment to treatment, Hygiene & sanitation practices) and Belief Change (change in perception e.g. For implementers: that they can depend on the LGU For LGU: that the implementers can sustain their project LGU funneling more funds to WASH efforts)

Organizational Capacity - maybe external and internal

External – means capacity to generate resources

Internal - Refers to management, transparency, decision making, leadership, etc.

Governance - refers to the organizational processes in decision making

<u>Project Design and Planning</u> – refers to the implementers capacity to come up with a technical action plan (specifically for the water system design)

Gender Make Up - refers to the # of women in implementation, leadership, positions, etc.

<u>Financial Management</u> - refers to the organization's capacity to keep transparent book records and be income generating and sustainable

<u>Strategic/Business Plan</u> – this is to determine if the implementers actually have a working strategy /business plan on how to generate demand, market and scale – up

Attainment of Legal Status - registration to appropriate agency

<u>Infusion to Local Economy</u> – this may be hard to determine, but to find out how much of the materials and services have been accessed locally which can infuse the local economy -

Re – Investment - Plowing money back in

<u>Individual Health Savings</u> – from the users, we'll determine if they have saved money from reduction of water related disease

Timing: refers to the starting point to-end of training, amount of time to implement to amount of time

to generate income and amount of time to scale up

<u>Scale up</u>: from level 2 to 3 for water system and for BSF acquisition of new molds, including new services offered or reinvestment