



Philippine Sanitation Alliance

14th Quarterly Report

January to March 2011

Prepared by AECOM International Development for USAID/Philippines Office of Energy and Environment under Cooperative Agreement No. 492-A-00-07-00023-00, SO#492-004 on January 31, 2011

I. Executive Summary

As of the end of the quarter, the PSA project has met or exceeded six of the ten project indicator targets. In San Fernando City, the local congressman provided P2 million in counterpart funds for the construction of two septage treatment lagoons, which were completed in March. The rest of the facility will be constructed with funds from Rotary International starting in April. A decentralized sewage treatment system was installed in a low-income urban area using a product called an EcoTank. The city continued its septage management promotion campaign by conducting orientation meetings with more than 700 barangay officials and health workers.

In Sta. Ana, Manila, the PSA project developed an operations and maintenance plan for the Sta. Ana Public Market Wastewater Treatment Plant, which is operating well. The vendors at the market are successfully implementing their solid waste management plan and producing compost and vinegar, growing plants, and making jewelry and bags from recycled materials. A group of parents, teachers and community members learned how to make soap during a training session at Sta. Ana Elementary School (SAES). The more than 1000 bars of soap they made will be used by the students during the coming school year and the group now has a livelihood skill they can use to earn money in the future.

Three PSA partners, Metro Cebu Water District, Laguna Water District and Calamba Water District, participated in twinning programs to learn about septage management from a water utility in Malaysia and a university in Taiwan, respectively. The twinning programs are organized by the USAID Environmental Cooperation-Asia (ECO-Asia) project. PSA continued to assist partners develop septage management projects in these three areas, plus Metro Naga, and Cagayan de Oro. Work has begun to assist Sta. Rosa City in developing a program as well.

II. Results Achieved

Summary of Results

The project is on track to reach the intended results by September 30, 2011 as long as city and water district partners develop septage management project per agreed-upon schedules. This is needed to meet indicator number 1. Of the ten project indicators, AECOM has met or exceeded six of them as of the end of quarter 14 (March 31, 2011). These indicators are numbers 2, 4, 5, 6, 8 and 9 in the table below.

PSA Indicator Results and Targets

Indicator	Qtr 14 Results	Cumulative Results	Project Target
1. Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (disaggregated by gender).	Men: 587 Women: 588 Total: 1,175	439,439	1,240,000
2. Number of feasibility and special studies/plans prepared	1	14	14
3. Amount of non-USAID financing mobilized for sanitation projects and facilities.	\$45,455	\$3,731,980	\$3,758,805
4. Number of people trained in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques, disaggregated by gender.	Men: 19 Women: 55 Total: 74	2,633	1500
5. Number of people trained in child health and nutrition through USG-supported health area programs.*	Men: 44 Women: 300 Total: 344	1,648	1500
6. Increase in the percentage of mothers of children under five who can cite at least 2 measures to prevent diarrhea.	-	40.6%	25%
7. Increase in the percentage of students who, while at school, observably wash their hands with soap and clean water after using the toilet to prevent diarrhea.	-	-	25%
8. Number of pollution and urban environment policies, laws, agreements or regulations implemented as a result of USG assistance.	-	6	6
9. Number of hygiene-related policies, laws, agreements or regulations implemented as a result of USG assistance.	-	2	2
10. Number of wastewater treatment projects developed by PSA partners that reduce pollution to levels that meet the government's effluent standards.	2	6	10

Details of Results

1. Number of people with access to improved sanitation

Project	Men	Women	Total
Wastewater Treatment – Plazuela de Iloilo	587	588	1,175
Total	587	588	1,175

2. An operations and maintenance plan was developed for the Sta. Ana Public Market Wastewater Treatment Plant.
3. Amount of non-USAID financing mobilized

Private Sector	0	Cash	\$45,455.00
Public Sector	\$45,455.00	In Kind	0
Total	\$45,455.00	Total	\$45,455.00

(See attached summary in Excel. Cost share sheets from each partner are available upon request.)

4. Number of people trained

People Trained	Men	Women	Total
Media Training and Pre-testing of Materials for Cebu Septage Management Promotions – February 21 to 22, 2011 in Cebu City	14	14	28
Housing Roundtable – March 4, 2011 at AECOM Office Taguig	5	4	9
Total	55	19	74

5. Number of people trained in child health and nutrition through USG-supported health area programs.

People Trained	Men	Women	Total
Global Handwashing Day Training of day care teachers, students and mothers – October 14-15, 2008 in Iloilo City	44	300	344
Total	44	300	344

6. None
7. None.
8. None.
9. None.
10. Laboratory results from the El Nido Public Market Wastewater Treatment Plant and the Dumaguete City Septage Treatment Facility show that these facilities reduce pollution to levels that meet the government's effluent standards.

III. Summary of Major Accomplishments

1. Project Development

A. Metro Cebu Water District Develops Septage Management Program with LGUs

In January and February, AECOM assisted the Metro Cebu Water District in working with key LGUs to continue developing the septage management program. On January 12, Chief of Party

Lisa Lumbao and consultant Andrea Echavez joined a meeting of MCWD and representatives of the USAID Philippine Water Revolving Fund Support Program with two Cebu City Councilors regarding the septage management ordinance. The draft ordinance was later presented in a public hearing on February 4. Many suggestions were made during the meeting, and Ms. Lumbao gave the water district written comments for the position paper they submitted during the public hearing. On February 21 to 22, 2011, Ms. Echavez facilitated a technical briefing and orientation on septage management for the Metro Cebu Promotions Team. The workshop was attended by representatives of the local governments of Cebu City and Cordova and several partner organizations who comprise the Promotions Team. Ms. Echavez gave inputs on how to maximize mass media (TV, radio, newspapers and on-line media) in promoting septage management and thereby minimize resistance from different stakeholders once new fees are implemented in Metro Cebu. On the second day, participants went house to house to pre-test materials for barangay-based campaigns. A focused group discussion was also held.

B. Indah Water of Malaysia Partners with Five Philippine Water Districts on Improved Sanitation

On January 28, 2011, five water districts (WDs) in the Philippines signed a partnership agreement with Malaysia's national wastewater operator, Indah Water Konsortium (IWK) and Maynilad Water Services, Inc. to cooperate on developing and improving septage management programs. The five water districts are Baliwag WD, Cabanatuan City WD and three PSA partners including Metro Cebu WD, Calamba WD and Laguna WD. The partnership is facilitated and funded by the USAID ECO-Asia project under the WaterLinks network.

Before the actual MOU signing, the WD participants attended a two and a half-day training workshop that was highlighted by a site visit to Dagat-dagatan. The IWK and Maynilad resource persons lectured on how to design effective septic tank desludging and treatment as well as proper disposal procedures. During the training workshop, each of the WDs developed and presented their respective collection plans, treatment design and disposal plans and procedures. IWK and Maynilad experts shared their knowledge and insights aimed at improving the plans that were developed by the WDs.

C. Taiwan and Philippine Partners Hold Training to Develop Natural Systems for Wastewater Treatment

After signing a Memorandum of Understanding (MOU) to develop natural systems that will treat municipal wastewater, representatives from Calamba Water District (CWD), Laguna Lake Development Authority (LLDA) of the Philippines, municipalities of Angono and Lucban held a four-day training last February 15-18 at the LLDA Training Resource Center in Calauan, Laguna. The training was a combination of technical lectures by experts from Chia Nan University (CNU) of Taiwan, discussion among participants and site visits to proposed sites of the different LGUs and CWD.

The training yielded profiles of selected sites and conceptual facility designs using a natural system approach. PSA, ECO-Asia and CNU are providing technical assistance to develop the CWD treatment facility and support the septage management program. PSA staff have been working with Calamba Water District to facilitate Calamba City's purchase of land for the septage treatment facility, as well as land for the sewage treatment facility planned for the Bucal spring area. In this regard, Lisa Lumbao made a presentation to the Calamba Water District Board on January 19, 2011.

D. Naga WD Deliberates on Site for the Treatment Facility

On January 18 and 19, PSA consultants assisted the Metro Naga Water District (MNWD) in validating the technical feasibility of the proposed sites for the water district's treatment facility.

PSA and the MNWD Technical Working Group evaluated seven sites but later shortlisted three after a financial evaluation was undertaken. The team also met with the Board members to present the technical and financial evaluations that included calculations of the present values of the project and fuel costs and the indicative incremental tariffs resulting from the investments. This analysis was done because the sites had varying costs and distance from the service areas.

During the discussion, information about the plan of the city government to put up a biogas facility under a BOT scheme surfaced. The Board then decided to negotiate with the city for a possible co-location of the septage treatment and biogas facilities on a 15 ha site that is being offered by a third party in exchange for a 3.5 ha site owned by the city government closer to the Naga City business center. Another presentation to the Board was done on February 2, 2011 to incorporate results of the negotiation with the city government.

E. Los Baños and Laguna Water District Officials Visit Maynilad Water Facilities



On March 3, 2011 delegates from the municipal government of Los Baños led by Mayor Antonio Genuino along with the General Manager of Laguna Water District (LWD) Pantaleon Tabanao visited the Dagat-dagatan septage treatment facility of Maynilad in Navotas City. Maynilad gave on-site lectures and presented best practices in septage management to the enthusiastic delegates.

The water district in cooperation with the local government unit will develop a septage management program for the areas being served by the LWD consisting of Los Baños, Calauan, Bay and Victoria. The LWD will finance and operate the treatment facility and collection equipments while the LGU will purchase the site and support the program with a septage ordinance.

F. PSA conducts Training of Trainers in Zamboanga City

PSA held a training of trainers in Zamboanga City on January 27-28. A total of 72 participants composed of barangay health workers (BHWs), sanitary inspectors and

representatives from the academic and local government sectors attended the training. The two-day workshop was aimed at equipping BHWs, sanitary inspectors and volunteers with the skills and knowledge needed to carry out promotion campaigns on septage management at the barangay level. The training included an overview of septage management, its legal mandates and effective ways to promote it among the target audiences. A role playing session was conducted where participants were given scripts on how to do the house-to-house campaign. Participants also visited a community to do a practical application of the workshop and to pre-test previously developed promotional materials.

2. Hygiene Promotion

PSA consultant Andrea Echavez continued to plan an expansion of the hygiene promotion work in Sta. Rosa to include school children throughout the city. See section below on the USAID-Rotary Pasig River Improvement Project for information on hygiene promotion activities.

3. USAID-Rotary Grant Projects

A. San Fernando Septage and Sewerage

Orientations and Trainings Conducted to Promote Septage Management

Between March 29 and April 1, 2011, the San Fernando City Environment and Natural Resources Office conducted orientation meetings with barangay councils and barangay health workers (BHWs) of all 59 barangays on the Septage Management Program in San Fernando. In total seven meetings were conducted, with between 6 and 10 barangays in attendance at each one, for a total of about 700 participants. The CENRO staff gave a brief background on septage management including basic definitions, an overview of the current situation in San Fernando, the laws governing sanitation in the Philippines, proper septic tank construction, and the relationship between septage management, health and the environment. The recent amendments to the City Sanitation Code were also discussed, as were the corresponding responsibilities of citizens and barangays. They also discussed the promotions campaign: strategies, current status and future plans. BHWs from all barangays confirmed that they have been carrying out the house-to-house campaign which began after the training session for BHWs on septage management in November. One hundred more brochures were distributed to each barangay for distribution to small commercial establishments by BHWs. During the open forum several people asked about exemptions and discounts on the wastewater management fee. Presenting at the meetings were Valmar Valdez and Sally Medrano of CENRO, Noel Casuga of the City Health Office, and Stu Campana and Clara Blakelock of Sustainable Cities International.

San Fernando City Constructs Treatment Lagoons and Installs EcoTank

With P2 million in funding from Congressman Victor Ortega, construction of two septage treatment lagoons was completed between January and March. For construction of the remaining parts of the treatment facility, the Rotary Club of San Fernando signed a contract on March 23 with a local construction company. PSA consultant Lito Santos designed the system and is providing technical assistance during the construction.

The San Fernando City Engineer hired a local contractor to install the first of three eco-tanks in Barangay Poro. The system intercepts a stream of wastewater from about 56 families or approximately 280 people that was flowing untreated into the river. Two other EcoTanks will be installed in Barangay Catbangan and San Francisco. The program was developed to demonstrate low-cost and sustainable wastewater treatment technologies that can be adapted to site conditions in the Philippines. The project is a program of CITYNET, the United Nations Institute for Training and Research and the Prince Albert II of Monaco Foundation. Two of the EcoTanks were donated from these organizations, and the third was purchased with funds from the USAID-Rotary San Fernando City Sewerage and Septage Management Project. The city paid to transport them from Manila and install them.

B. Pasig River System Improvement Project

Dry Run of Segregation System Implemented in Barangay Damayan

The Quezon City portion of the USAID-Rotary Pasig River Improvement Project has achieved initial results in solid waste management in Barangay Damayan in Quezon City. NGO partner Mother Earth Foundation (MEF) reported that during a dry run of the waste segregation program, nearly all of the households segregated their kitchen wastes 5 out of 7 days of the week. This waste was collected by a contractor of the city government to use as hog feed. Local junk shops collected recyclables and a local church collected garden waste for conversion into charcoal and compost. The barangay applied for a P100,000 incentive from the city in recognition of their ability to divert more than 30% of their solid waste. MEF conducted a consultation with new barangay officials in Barangay Damayan on January 29. The results of the dry run were presented to the Barangay Council and they unanimously moved to have the program implemented for the entire barangay. In response to this, the Calalay Elementary School had a slogan making contest and parade around the barangay on February 4, 2011. The school's solid waste management program includes a materials recovery facility and banning of straws and plastic in the cafeteria. Volunteers from the University of the Philippines conducted a house-to-house information campaign in February. Plans are currently underway to develop two material recovery facilities using Rotary International funds and cost share from the local government and donations of land. Given the success of Mother Earth Foundation's work, Manila Water has requested their assistance in replicating this approach in other areas.

Sta. Ana Public Market Sustains Drive for Waste Management

In the wake of its successful construction of Manila's first public market wastewater treatment plant, the Sta. Ana Public Market has embarked on a solid waste management initiative to keep garbage out of the treatment plant and to attract more customers. With assistance from the USAID Philippine Sanitation Alliance and Rotary International District 3810, the Solid Waste Management Association of the Philippines conducted a baseline survey, training, and a number of site visits with the market vendors. The vendors have developed a solid waste management plan and are now composting about 60 percent of biodegradable waste. The compost is being used to fertilize newly planted trees around the market and some recycled items are being sold as accessories and bags.

Soap-making Training Kicks Off Community Sanitation Initiative

In conjunction with efforts to improve hygiene and sanitation in Sta. Ana, Manila, a group of parents, teachers and various community members learned how to make soap during a training session at Sta. Ana Elementary School (SAES) on February 18. To date, the school's comfort

rooms contain no soap for students or school staff to wash their hands with. The purpose of the training was three-fold: first, to provide SAES with a supply of soap for the coming school year; second, to provide SAES with a sustainable and community-driven source of soap for subsequent years; and third, to provide livelihood skills to poor members of the community. As such, the soap-making training has enriched the community beyond the thousand plus bars of soap the participants made that day.

Comfort Room Repairs Completed at Sta. Ana Elementary School

Comfort rooms at Sta. Ana Elementary School (SAES) were in various states of disrepair including lack of running water, broken faucets and toilets as well as missing stall doors. The Pasig River Improvement Project undertook repairing the school's comfort rooms as first step in promoting proper hygiene and sanitation within the school and ultimately, within the community. The repairs spanned from February to April while school was in session. However, upgrades in infrastructure need to be supplemented with hygiene and sanitation promotion campaigns with relevant parties, including parents, teachers, administrators, maintenance staff and students. As such, project members conducted consultation meetings with maintenance staff, parents and administrators to identify issues, challenges, possible solutions and create an action plan to promote proper hygiene and sanitation within SAES.

4. Environmental Compliance

During the quarter, PSA staff continued to follow up with the City of Manila for documents needed for the Sta. Ana Public Market Wastewater Treatment Plant, such as environmental clearance certificate. The certificate is needed so the city can apply for a discharge permit from the Laguna Lake Development Authority (LLDA). These documents are required by the Environmental Monitoring and Mitigation Plan (EMMP) for the project.

As required by the EMMP for the San Fernando City Septage Treatment Facility, AECOM prepared an Environmental Health and Safety Plan and required the contractor to follow it. The City's Safety Officer and a representative from the City Environment and Natural Resources Office will visit the site weekly to check on compliance.

IV. Management and Finance

The project is on track in terms of overall management, reporting and expenditures. Information on training programs is updated on the TraiNet system. AECOM has requested a budget realignment and additional funds for the USAID-Rotary Pasig River Improvement Project, which is being reviewed by USAID. The PSA website has been developed and will be launched in May.

V. Performance Objectives for Next Quarter

During the next quarter, AECOM will focus on the following major activities:

1. Training on operations and maintenance and grease management for the Sta. Ana Public Market Wastewater Treatment Facility;
2. Construction of the San Fernando Septage Treatment Facility;

3. Hygiene and sanitation campaigns, including promotion of proper usage and maintenance of comfort rooms following toilet and sink repairs in Sta. Ana;
4. Bidding out of a construction contract for the Laguna septage treatment plant;
5. Launching of and continued updates to the PSA website; and
6. Continued assistance focused on development of septage management programs and promotion campaigns.