

# Philippine Sanitation Alliance

## 5th Quarterly Report

October to December 2008

Prepared by AECOM International Development for USAID/Philippines under Cooperative Agreement No. 492-A-00-07-00023-00

### I. Executive Summary

During the quarter, the United States Agency for International Development (USAID) Philippine Sanitation Alliance (PSA) project made good progress in promoting improved sanitation in the hospital, hotel/restaurant, and housing sectors. A hospital in La Union Province built a wastewater treatment plant with PSA assistance, and several presentations were made during hospital conventions. The Hotel and Restaurant Association of the Philippines organized a national workshop to encourage its members to develop wastewater treatment facilities to comply with the Clean Water Act. A project development session was held with housing developers in Sta. Rosa City, and Gawad Kalinga constructed several anaerobic baffled reactors in their new communities.

The PSA project, in cooperation with the USAID Environmental Cooperation-Asia (ECO-Asia) project, organized a workshop to review 10-Step Promotions Toolkit that promises to be very useful for PSA partners to develop highly effective promotion campaigns to support their sanitation projects. PSA also assisted its partners in promoting handwashing with soap through the celebration of the first Global Handwashing Day on October 15, which generated enthusiastic participation and media coverage.

PSA partner C TRADE developed four biogas to energy systems for hog farms in Batangas, and organized an event to inaugurate the system at PS Farms. The event educated over 200 people, mainly farm owners from nearby areas, on the benefits of collecting and treating hog waste to reduce water pollution and greenhouse gas emissions. PSA Senior Sanitation Advisor Dave Robbins provided technical assistance to C TRADE and the farms to improve the processing of the waste.

### II. Results Achieved

Achievement of performance indicators and results are on track, as well as the level of expenditures. Non-USAID funds leveraged during the quarter totaled \$663,117, and 4,659 people obtained access to improved sanitation as a result of PSA assistance.

## Indicator Reporting

### Summary of Results

Indicator	5th Qtr Results	FY09 Targets <sup>1</sup>	Cumulative Results	Project Targets
1. Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (disaggregated by gender)	Men 1,663 Women 2,996 Total 4,659	50,000	Men 7,304 Women 14,521 Total 21,825	900,000
2. Number of feasibility and special studies/plans prepared	0	4	4	10
3. Amount of non-USAID financing mobilized for sanitation projects and facilities	\$663,117	\$1,100,000	\$1,070,482	\$2,400,000
4. Number of people trained in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques, disaggregated by gender	73 men 52 women 125 total	300	810 men 352 women 1162 total	270
5. Number of sanitation and hygiene promotion events conducted (WASH campaign)	0	2	1	5
6. Number of pollution and urban environment policies, laws, agreements or regulations implemented	0	1	2	5

### Details of Results

1. Lorma Medical Center and Colleges has built a wastewater treatment plant with assistance from the PSA. C TRADE has built biogas treatment facilities for 4 farms: Bhapi, Dodram, PS, and Wellington farms. The number of people that will benefit from these projects is shown below.

Project	Men	Women	Total
Lorma Medical Center and Colleges	1,557	2,908	4,465
<u>C TRADE partners (4 farms)</u>	106	88	194
Total	1,663	2,996	4,659

2. No new plans or studies were prepared this quarter.

<sup>1</sup> Targets for FY09 are preliminary (have not been approved by USAID) due to the pending proposal to expand the project.

3.

<b>Leveraged Funds</b>			
Private Sector	\$659,313.67	Cash	\$661,720.34
<u>Public Sector</u>	\$3,804.17	In Kind	\$1,397.50
<b>Total</b>	<b>\$663,117.84</b>	<b>Total</b>	<b>\$663,117.84</b>

4.

<b>People Trained</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>
Hotel and Restaurant tech/fin workshop Oct. 3	63	36	99
Promotions Toolkit Review Workshop	10	16	26
<b>Total for Quarter 5</b>	<b>73</b>	<b>52</b>	<b>125</b>

5. No WASH days were conducted this quarter.

6. No new policies were passed this quarter.

### III. Summary of Major Accomplishments

#### A. PSA Supports the First Global Handwashing Day

On October 15 and 16, PSA supported several successful events marking the first ever Global Handwashing Day (GHD). Simultaneous celebrations were held in the cities of Makati, Sta. Rosa, Meycauayan, Iloilo, and San Fernando (La Union), Muntinlupa, Malaybalay/Cagayan de Oro and in Basco, Batanes on October 15, while Marikina and Quezon Cities held their celebrations on October 16. The GHD aims to raise awareness on how poor hygiene practices can bring death and disease to people especially children. The GHD brought together civic organizations, local government units, national agencies and private sector business for the campaign.

School children were taught proper handwashing with soap and clean water, particularly before eating and after using the toilet, as one of the most effective and inexpensive ways to prevent diarrhea and respiratory diseases. DOH and city officials, together with representatives from PSA, reiterated the importance of handwashing with soap as each gave an inspirational message to the school children and guests. They asked the children to be the agents of behavioral change by taking the proper handwashing training home to their families and friends. Schools were likewise urged to put soap in their bathrooms. Each city came up with different campaign materials like songs, mascots and games to make handwashing a fun activity for the children. The Lions Club in Sta. Rosa suggested a very novel idea to the city council by asking the members to pass an ordinance requiring all public schools, restaurants and buildings to put soap in their bathrooms to be used by the general public.



*Quezon City Global Handwashing Day celebration*

## **B. Building Developers Focus on Environment**

The theme of the Annual Chamber of Real Estate and Builders' Associations (CREBA) National Convention held October 24-25 was "Managing Land and the Environment." The conference kit included PSA information materials on technology options for housing developers and sample cost data. PSA Project Manager Lisa Lumbao gave brief remarks and handed out additional materials at an exhibit table during the event. Many of the members expressed interest in including full sewage treatment facilities in their new developments, including representatives from Habitat for Humanity. PSA staff will follow up with those who expressed interest.

## **C. Local Government and Utility Staff Review Promotions Toolkit**

On October 22-23, USAID Philippine Sanitation Alliance partners from local governments, water and wastewater utilities, and other government agencies reviewed a draft promotions toolkit and recommended improvements. The USAID Environmental Cooperation-Asia (ECO-Asia) program developed the draft toolkit, which contains a detailed 10-step process that local governments and utilities can use to bring about positive behavior change related to water, sanitation and hygiene programs. The toolkit offers guidance on how to use quality audience research, develop effective campaign materials and measure results. The participants recommended changes that will make the toolkit easier to use and more practical for their promotion campaigns, which include promoting handwashing with soap, payment of utility user fees and desludging of septic tanks. Following the review workshop, the recommendations will be incorporated and the revised toolkit will be launched and distributed. Many of the organizations that participated in the review will begin using the toolkit in early 2009.

#### **D. PSA Supports Green Kalinga**

PSA supported the Green Kalinga project of Gawad Kalinga, spearheaded by Ms. Bebet Gozun, by being one of the exhibitors during the GK Expo at Fort Bonifacio on Saturday, October 11, 2008. Over 100,000 participants from all over the country representing various sectors went to the Expo to see displays, exhibits and demonstrations on how to ensure sustainability of Gawad Kalinga projects. Military personnel, religious groups and representatives from the US Embassy took interest in the PSA booth, which showed various low-cost technology options for wastewater treatment, including anaerobic baffled reactors, which are being installed in several GK communities.

#### **E. HRAP Raising Awareness on Wastewater Management among Hotels and Restaurants**

The Philippine Sanitation Alliance in partnership with the Hotel and Restaurant Association of the Philippines (HRAP) hosted a workshop on October 3, 2008 at the Pan Pacific Hotel, Malate Manila. Entitled “Appropriate Technologies and Financing Options for Hotel and Restaurant Wastewater Management,” the workshop aimed to increase the number of hotels and restaurants that incorporate full sewage treatment into their operations. The audience included about 100 hotel and restaurant owners and engineering staff, and officials from the Department of Tourism (DOT) and Department of Environment and Natural Resources (DENR) who came from the provinces and Metro Manila.

USAID Program Office Chief Myra Emata-Stokes, DOT Undersecretary Palabyab and Undersecretary Sarabia, and HRAP President Humphrey O’Leary gave opening remarks, stressing the importance of proper wastewater management for the economic health of the hospitality industry. PSA staff and guest presenters from different institutions, including DENR, made presentations on technology and financing options. Several case studies presentations covered actual costs and technologies used, how obstacles were overcome, and lessons learned. Small group sessions focused on the barriers and proposed solutions for putting up a wastewater treatment facility. The participants recommended the following solutions to the barriers identified: conduct information campaigns through seminars and exhibits and a Pasig River tour on July 2, 2009; inclusion of wastewater management in the hotel and restaurant college curriculum; upload information on appropriate low-cost technologies on the HRAP website; hold dialogues with water service providers regarding the environmental fee being charged; stronger enforcement of wastewater regulations; and lobby Congress for funding. The following day, several participants joined site visits to wastewater treatment facilities at Puregold in Quezon City and Century Park Sheraton Hotel.

#### **F. Biogas System Helps Farm Owners Convert Hog Waste to Electricity**

C TRADE, an American renewable energy corporation and member of the Philippine Sanitation Alliance (PSA), inaugurated a biogas to energy system at PS Farm in Lipa City, Batangas on November 15, 2008. The facility is one of four biogas digester systems recently constructed by C TRADE in Batangas using a build-operate-transfer financing scheme. Over 200 guests, including many farm owners, received information on biogas technology, and had the

opportunity to meet one-on-one with regulatory compliance officials from the Department of Environment and Natural Resources (DENR) and Laguna Lake Development Authority (LLDA). LLDA also shared information on its Compliance Assistance Center for hog raisers, which has information available online and will soon open a center in Baras, Rizal. The PSA is also distributing information about biogas to energy systems through the Agricultural Sector Alliance of the Philippines (APAS), which is a party list group. The biodigester installed by C TRADE processes and treats animal waste, such as hog and chicken manure, in a concrete tank to produce biogas (methane). The biogas is collected in gas tanks and used to run electric generators that provide cheap electricity to the farm owner. Additionally, the waste sludge or solids that remain after digestion are dried and processed into organic fertilizer that are much cheaper than urea used for agricultural purposes. The remaining treated water is reused in the farm for stall washing, generally reducing fresh water pumping and electricity costs by 50%. Once it obtains approval from DENR, C TRADE will apply for carbon credits for the sequestered methane, which is a potent greenhouse gas.



*DENR Environment Management Bureau Director Julian Amador cuts the ribbon of the biogas digester at PS Farm*

### **G. PSA Joins EcoGov 2 Regional Sanitation Training Program**

Four PSA partner cities are participating in a sanitation training program designed to help local governments develop appropriate wastewater treatment systems for point sources. Organized by the USAID Environmental Governance 2 (EcoGov 2) project, the training combines engineering design theory with practical examples and sanitation toolkits to assist engineering offices with the development of wastewater systems for slaughterhouses, hospitals, public markets and housing developments. The training was developed specifically for engineering staff of local governments, although attendees from academia and regional government offices

of the Department of Environment and Natural Resources and the Department of Health also participated. It started with a three-day classroom session followed by a practicum to apply the lessons to a project in the participant's home city. Participants will return to present and review preliminary designs for actual wastewater projects in their jurisdictions. Local government staff from PSA partner cities Dumaguete City and Iloilo City joined the Cebu training, while Cagayan de Oro and Zamboanga City staff joined the Davao training. It is anticipated that the training will lead to a significant investment in wastewater infrastructure throughout the central and southern regions of the Philippines as preliminary designs are developed into actual projects.

#### **H. Cagayan De Oro Team Begins Developing Promotions Plan**

Cagayan de Oro has appointed a Promotions Team to focus on developing a septage management campaign. PSA Consultants Nene Narvaez and Andrea Trinidad-Echavez conducted a workshop on Nov. 17 and 18 using the 10-step Promotion Toolkit to assist the team in getting started. The team mapped out the skills of each team member and assessed what other areas of expertise they need to make their promotion campaign successful. The team also defined the problems faced by the local government in the area of sanitation and hygiene, the target audiences for the campaign and ideal behaviors. In addition to conducting the promotion campaign workshop, PSA Consultant Nene Narvaez discussed with the Technical Working Group issues about the possibility of tapping financing for an interceptor and the pilot wastewater treatment facility to be constructed at the resettlement site in Barangay Calaaman.

#### **I. Pollution Control Officers Meet in Cebu to Discuss Hospital Waste**

The PSA provided support to the Pollution Control Association of the Philippines, Inc. (PCAPI) in their regional training symposium on managing waste from hospitals and health care facilities. On November 17, 2008, PSA's Dave Robbins presented a program for planning for wastewater systems for hospitals that includes assessing the characteristics of the wastewater discharge as well as the site limitations as important steps in choosing appropriate control technologies. He stressed the importance of providing pretreatment devices for the food preparation and laundry washing areas. He also presented an interactive toolkit for proper sizing of pretreatment devices. PCAPI will host additional training sessions in Luzon and Mindanao in a continuing effort to reach out to their members with timely information.

#### **J. Philippine Hospital Association Endorses Pampanga Hospital for PSA Pilot**

Dr. Tiburcio S. Matias, PHA President, endorsed the Pampanga Medical Specialist Hospital as a pilot hospital for PSA in Region III. PSA Senior Sanitary Engineer Carlito Santos visited the hospital on November 20, 2008. The private hospital will expand during the first quarter of 2009 and will include a sewage treatment plant in the construction project. Engineer Santos inspected the area available for the plant and will develop options for the hospital management to consider. Once constructed and operating, the system will serve as a model for replication by other hospitals in the region.

### **K. PSA Presents Wastewater Treatment Technologies to DOH Sanitary Engineers and Inspectors**

PSA Senior Sanitation Engineer Lito Santos presented various wastewater treatment technologies to a group of about 40 DOH sanitary engineers and inspectors at the Environmental Health Coordinators' Meeting, Center for Health Development, Region IV-A, held in Quezon City. There was a lively discussion and the participants showed interest in applying these technologies in their respective areas of jurisdiction. The need for operations and maintenance was also discussed during the question and answer portion. One of the participants requested technical assistance for the design of a treatment facility for the DOH hospital in Cabuyao Laguna, which already has an approved budget.

### **L. Santa Rosa City Housing Developers Plan Sanitation Projects**

Twenty-one housing developers from Santa Rosa City met at the City Hall on November 21, 2008 to further discuss sanitation issues that were identified during the stakeholders' workshop in Sta. Rosa and technology-finance workshop held in Manila. They concluded that the issues raised were valid and that the developers have the responsibility to prevent water pollution and improve the environment by installing full sewage treatment systems rather than only septic tanks. PSA Senior Sanitation Engineer Lito Santos presented several low-cost technology options to the group. In a mini-workshop, each of the developers presented a current housing or commercial building project that will include a wastewater treatment facility. Two of these are planned for the next 6 months.

The PSA and the TWG of Santa Rosa planned the following next steps: 1) PSA to assist San Lorenzo Development Corp. and Moldex Realty, Inc. to develop wastewater treatment facilities at San Lorenzo Village housing project and Villa Caceres Commercial Subdivision; 2) Start the promotions campaign using the toolkit; 3) Plan a separate module/session for the developers with existing developed areas (where housing units have been built).

### **M. Zamboanga City Council Conducts Sanitation Study Tour**

Facilitated by the Zamboanga City government and the PSA, eleven city councilors from Zamboanga City visited the wastewater treatment systems of Manila Water at the University of the Philippines in Diliman, Quezon City and the Muntinlupa public market on November 26, 2008. They learned about the low-cost yet efficient technologies that the city can adopt for their planned wastewater management projects. Before the actual tour, Lisa Lumbao of PSA gave an orientation on the past and current initiatives of PSA in Zamboanga City, and the group discussed the planned projects. The group decided to review the desludging fee contained in the proposed septage management ordinance and develop cost recovery schemes for the city's slaughterhouse and public market wastewater projects. The councilors agreed that the city should develop the septage management program and a promotions campaign, and bid out contracts for septage collection and treatment to the private sector. Some councilors also mentioned the need for wastewater treatment among the cannery companies operating along the coast.

## **N. PSA Promotes Wastewater Treatment at Hospital Association Convention**

PSA partner Philippine Hospital Association (PHA) hosted its 59th annual convention at the Manila Hotel November 26-28. The theme of the convention, "Taking the Big Leap" reflected the overall thrust of many of the topics presented, which were geared toward motivating hospital administrators to modernize their industry. This was especially applicable to the PSA talk on how hospital administrators can plan and implement wastewater treatment systems for their facilities. PSA Senior Sanitation Advisor Dave Robbins presented formulas for determining the size and cost of wastewater treatment systems based on the patient load of the hospital. He also presented pretreatment methods for food preparation and laundry services. The conference also provided an opportunity to celebrate the Memorandum of Agreement between the PSA and PHA, which was referenced in the PHA President's opening address and in the conference proceedings. The PSA also placed information materials in the conference kits. Over 1,000 PHA members were in attendance, representing a major information outreach by the PSA.

## **O. PSA Presents Wastewater Technologies to the Union of Filipino Tourism Educators**

Following a suggestion made during the HRAP workshop, PSA Engr. Lito Santos made a presentation during the 8th National Convention of the Union of Filipino Tourism Educators (UFTE) held Nov 27-28, 2008 at the Evercrest Golf Club in Nasugbu, Batangas. He presented technology options for wastewater treatment projects and the impact of water pollution in the tourism industry and the national economy to about 80-100 delegates from different colleges nationwide. The educators intend to visit wastewater systems in the future and reinforce environmental protection in their educational curriculum.

## **IV. Management and Finance**

The project is on track in terms of overall management, reporting and expenditures. Rhodora Sanidad, the Administrative Assistant, resigned in August, and Jenny Palmera took over some of her duties. Some of her duties were also filled by outside services. A new Administrative Assistant will be hired in January. A proposal to expand the project in scope, budget and time was submitted to USAID in late September, was revised to incorporate comments from USAID and resubmitted on December 21.

## **V. Performance Objectives for Next Quarter**

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

- Conduct a two-day technology-finance workshop for LGUs.
- Conduct a promotion toolkit training workshop with partners.
- Assist with planning and implementation of septage management programs in Dumaguete, Naga and Zamboanga.