

# Philippine Sanitation Alliance

## 3rd Quarterly Report

April to June 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 conducted a technology-finance workshop for the housing sector, two stakeholder workshops and septage management and promotions planning workshops with our partner cities. All the workshops were well attended and well received by the participants. The service providers' training also ended with a field visit to treatment facilities within Metro Manila. PSA staff also participated in the Wash Day campaign in Cebu City

Calbayog City, one of our partner cities from LINAW 2, constructed sanitation systems in its new housing resettlement site and health clinic with help from the PSA and the US Naval Construction Regiment.

Achievement of performance indicators and results are on track, as well as the level of expenditures. Non-USAID funds leveraged during the quarter totaled \$98,821, and 430 people obtained access to improved sanitation.

### **II. Performance Objectives and Expected Outputs**

Achievement of performance indicators and results are on track, as well as the level of expenditures. Non-USAID funds leveraged during the quarter totaled \$98,821, and 430 people obtained access to improved sanitation as a result of PSA assistance.

## Indicator Reporting

### Summary of Results

Indicator	3rd Qtr	Cumulative	FY08 Target
1. Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (disaggregated by gender)	430*	430	10,000
2. Number of feasibility and special studies/plans prepared	1	3	4
3. Amount of non-USAID financing mobilized for sanitation projects and facilities	\$98,821	\$150,276	\$150,000
4. Number of people trained in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques, disaggregated by gender	231 men 98 women 329 total	393 men 153 women 546 total	200
5. Number of sanitation and hygiene promotion events conducted (WASH campaign)	1	1	1
6. Number of pollution and urban environment policies, laws, agreements or regulations implemented	1	1	2

\*Note: information on the number of men and number of women is still being gathered. It will be included in the next quarterly report.

### Details of Results

1. A wastewater treatment facility was built for the Calbayog Greenland Subdivision, which currently has 60 homes completed and occupied. A facility was also completed for the Calbayog Health Clinic. The Sta. Cruz Slaughterhouse Wastewater Treatment Facility is under construction and will begin operating in August.

Project	No. People	Cost* (Php)
Calbayog Health Clinic	80	250,000
Calbayog Greenland Subdivision	300	1,500,000
Sta. Cruz Slaughterhouse	50	1,800,000

\*Note: these costs are partial. Additional cost information for these projects will be submitted next quarter.

2. Meycauayan City Action Plan prepared.

3.

Private Sector	\$954	Cash	\$96,051
Public Sector	\$97,867	In Kind	\$2,770
Total	\$98,821	Total	\$98,821

(See attached summary and cost share sheets from each partner for details)

4.

<b>People Trained</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>
Meycauayan Stakeholder Workshop	63	15	78
Housing Tech/Fin Workshop	76	36	112
Cagayan de Oro Stakeholder Workshop	49	35	84
Zamboanga Septage Management Workshop	<u>43</u>	<u>12</u>	<u>55</u>
<b>Total for Quarter 3</b>	<b>231</b>	<b>98</b>	<b>329</b>

5. The PSA worked with the USAID Philippine Water Revolving Fund project to organize a WASH day in Cebu in April.
6. The Clean Water Act was implemented by many city partners that developed wastewater treatment facilities for their public markets, slaughterhouses and public hospitals (Calbayog City, Manjuyod Municipality, Santa Cruz Municipality, and Zamboanga City).

### III. Summary of Major Accomplishments

#### A. Technology-Finance Workshop for the Housing Sector Generates Interest

A 2-day workshop on Appropriate Technology and Financing Solutions for Wastewater Management for the Housing Sector was held April 29 and 30, 2008 in Makati City to introduce technology and financing options for low-cost wastewater management that have proven to be successful in the region or other parts of the world. Speakers shared best practices and technology design approaches in managing domestic wastewater in the housing sector. The first day focused on technology and the experiences of partners in designing and operating wastewater treatment projects. The second day focused on financing that partners can tap to fund their projects, followed by site visits to existing facilities. The site visits exposed participants to best wastewater management practices as applied in various types of housing facilities.



Keynote Speaker from Brazil Klaus Neder representing Brasilia Water and Wastewater Corporation talked about Condominial Sewerage Technology during the Tech-Fin Workshop

Participants included representatives from national agencies, including DENR and Housing and Urban Development Coordinating Council (HUDCC) together with key shelter agencies. The private sector was represented by members of the Chamber of Real Estate and Builders'

Associations (CREBA), Gawad Kalinga and other housing-related organizations. The members of the media were also invited as participants.

### **B. Calbayog City Develops Sanitation Systems for Relocation Site and Health Clinic**



PSA staff assisted the US Naval Construction Regiment and Calbayog City to develop proper sanitation systems for two new construction projects. PSA sanitation experts Dave Robbins and Lito Santos visited Calbayog City twice in May to provide technical assistance to the 30<sup>th</sup> Naval Construction Regiment, which is building a wastewater system that can serve 240 homes at the Greenland relocation site. The wastewater treatment system includes an anaerobic baffled reactor that will reduce about 70% of the pollution from the sewage and a secondary treatment system, which utilizes cocopeat as a filtration medium. The wastewater is collected through an innovative condominium sewer system, which utilizes shared sewer laterals to minimize the installation cost and operational requirements. The PSA team also provided assistance for a similar wastewater treatment system for the new Calbayog City Health Clinic, which will serve the residents of the subdivision and other residents of the city. The construction was a joint military project between the US and the Philippines in which the US military provided personnel and construction materials worth about \$48,000. Both systems are scheduled to be completed in July 2008. Calbayog was a pilot city during the USAID Local Initiatives for Affordable Wastewater Treatment project from 2005-2007, and is now part of the PSA.

### **C. Zamboanga City Pursues Five Sanitation Initiatives and Holds Septage Management Workshop**

Zamboanga City held a septage management workshop on June 18, 2008 which attracted about 60 participants from various sectors. The group discussed options for developing a city-



wide program to desludge septic tanks and charge a monthly fee on water utility customers' water bills. Following the workshop, the technical working group (TWG) met with the PSA representatives and developed a first draft of a septage management ordinance. The environment committee of the City Council will do a first reading of the ordinance, and the TWG will develop a promotion campaign.

This is their first activity after the city decided to pursue five major projects. The projects will include treatment facilities for the city slaughterhouse, city public market, Brent Hospital, Mampang relocation housing site, and a citywide septage management program. Mayor Lobregat has conveyed his excitement and determination to pursue these initiatives and requested the PSA to inspect and evaluate treatment facilities of private slaughterhouses, the municipal hospital, and private desludgers.

#### **D. Meycauayan Sets Priorities for its Wastewater Management Program**

On April 15, Meycauayan City held its one-day multi-stakeholders' consultation and action planning workshop. More than 80 people attended the workshop representing the city government, city council, barangay leaders, national agencies, the water district, homeowners associations, academe, and private sector companies including Jollibee, Coca-Cola, Maymart, a hospital, and a private housing developer.

The workshop participants developed an action plan to address wastewater issues, using consultation, consensus-building, and participatory approaches. The workshop also created excitement about the project and support for the implementation of the PSA project. The event was opened by Meycauayan City Association of Barangay Chairmen President Rene Ponciano on behalf of Mayor Joan Alarilla. Ed Alarilla, former Mayor and now general consultant of the City, also made some inspiring remarks. In his speech, he underscored the value of the workshop to the city and expressed his hope for better cooperation among the city stakeholders. USAID officer Jose Dulce highlighted past USAID projects with the province of Bulacan and encouraged everyone to actively participate in the projects and to learn from the examples of other LGUs in this sector.

A long list of wastewater management and sanitation projects was developed which was later prioritized during a June 25, 2008 meeting. A smaller group of stakeholders met to focus activities on the more urgent yet doable projects in the next twelve months of 2008 until 2009. The nineteen participants selected nine priority activities, including creating a Water Quality Management Team to oversee the program, gathering data, developing an information and education campaign, training on cost recovery and technology, drafting a water pollution ordinance, and developing a pilot wastewater treatment facility for St. Mary's College of Meycauayan (SMCM), a private school in the area.

Medium-term plans include developing a septage treatment facility for a small community and a public school, and developing a wastewater treatment facility for the city's slaughterhouse, among others.

After facilitating the meeting, Engineer Lito Santos and Nene Narvaez, senior PSA consultants, conducted an ocular inspection of the SMCM. Engr. Santos will submit an initial evaluation and proposed design to the technical working group (TWG) in the next few weeks.

### **E. Service Providers' Training Ends with Successful Field Visit**



Trainees at Nuvali Subdivision in Santa Rosa City, visit to Muntinlupa Market STP, and visit to Ayala-Alabang Village STP

On May 9, eighteen staff from seven service providers and Ateneo de Manila joined the culminating activity capping the 4 month-long PSA Short Training Course for Service Providers on Appropriate Wastewater Treatment Systems and Approaches. The companies represented were Maunsell Philippines, Chem-Earth Technologies, Bremen Overseas Research and Development Association-Basic Needs Services (BORDA-BNS), Palafox Associates, Repcon Engineering, Envision, and IM Bongar Services. Two representatives from Ateneo de Manila's Physical Plant Committee joined the activity to better understand appropriate wastewater treatment technologies as they plan out their university-wide wastewater management program.

The day started with a lecture in the Makati office of Infracore/GSE Philippines that focused on the uses and design application of HDPE liners for wastewater treatment lagoons. The lecture was given by its President Peter Heilveil. Infracore is one of the leading suppliers of HDPE pipes and liners in the country with projects that include the Magallanes Treatment Plant, Puerto Princesa Landfill, and private clients like Chevron, Petron, and United Laboratories. Also, a short product presentation on bio-enzymes and the Gembina pipe diversion process was given by WaterKonsult.

The group visited the lagoon system of a new high-end Ayala development in Santa Rosa called Nuvali, Muntinlupa Public Market treatment plant, and the Ayala-Alabang Subdivision treatment plant. The participants expressed their appreciation for the opportunity provided by USAID to be exposed to actual built systems with testimonies and discussions focusing on operations and maintenance issues. The participants received their certificates of completion and a CD

documentation of the training course in a simple ceremony witnessed by PSA Senior Project Coordinator Jay Tecson.

The service providers' training was conducted with support from PSA and Maunsell Philippines. The objective of the training was to organize a pool of service providers knowledgeable in the design of low-cost, low-maintenance wastewater treatment systems that will help the PSA project respond to the demand from both the public and private sector for technical design of wastewater treatment systems. The list of service providers will be widely distributed among PSA alliance partners and they will be encouraged to participate in PSA activities and workshops to better understand the needs and requirements of the alliance partners. The whole training course consisted of eight training modules on how to design sustainable, low-cost, low-maintenance wastewater treatment systems.

#### **F. Wash Day Held in Cebu with US Ambassador Kenney**

The Philippine Water Revolving Fund Support Program (PWRF-SP) and PSA jointly organized an event with Ambassador Kristie Kenney in Cebu City on April 10, 2008. The event featured the turnover of the PWRF-SP and PSA assisted Septage Management Feasibility Study for Metro-Cebu Water District (MCWD), and a hand washing and hygiene campaign with children and women community leaders of three barangays in Cebu City. The event was also attended by the Cebu City Vice-Mayor, city officials, MCWD board members and top management. Ambassador Kenney lauded the efforts of the water district and the city to improve sanitation services and thereby improve the health and environmental conditions of the people.



Officials at the April 10 launch of the Metro Cebu Water District septage management program and WASH event include MCWD General Manager Armando Paredes, US Ambassador Kristie Kenney and USAID Chief of the Office of Energy and Environment Daniel Moore.

#### **G. CDO Stakeholders Develop Action Plan; Council Pledges Support to the PSA**

The one-day PSA stakeholders' consultation and action planning workshop in Cagayan de Oro was held on May 20, 2008. More than 90 people attended the workshop, which provided an orientation on sanitation to key stakeholders, who then identified priority projects and programs for the city. These included a city-wide septage management program, a public information and promotion campaign, an interceptor system and treatment plant along the river that will be part of Mayor Constantino Jaraula's proposed "Golden Mile" along the Cagayan River. An interceptor system is an extended combined sewer system that collects dry-weather flow from outfalls leading to a water body and treats it in a terminal treatment facility with an overflow mechanism. At the end of the workshop, City Councilor Ian Mark Nacaya thanked USAID for its

support and pledged to renew efforts from his committee to deliberate and approve a draft city ordinance regulating septage management in the city.

A day prior to the workshop, PSA Project Manager Lisa Lumbao presented to the City Council the USAID PSA project and the current state of water pollution in the country. The Council expressed its support for the project and pledged to increase enforcement of existing laws on water pollution, including requirements for new subdivisions.

A day after the workshop, the PSA Technical Working Group (TWG) in Cagayan de Oro had its first meeting. The TWG was formed by the Mayor through an Executive Order to assist in the implementation of PSA activities in the city. In the TWG meeting, members outlined the short and medium term projects and programs that were recommended during the stakeholders' workshop. The TWG will fine-tune the outputs and submit them as a finalized action plan for the approval of the local chief executive.

Both the city council presentation and the stakeholders' conference were covered by local television and print media.

## **H. Ateneo University Plans Decentralized Wastewater Treatment Project**

The Philippine Sanitation Alliance (PSA) and Bremen Overseas Research and Development Association-Basic Needs Services (BORDA-BNS) are working with the Ateneo de Manila University at Loyola Heights to help develop a decentralized wastewater management system for their campus on Katipunan Avenue. During a meeting of the deans, University officials agreed to work with both PSA and BORDA to move to the next step in the development process, which is the site evaluation and preliminary feasibility study. BORDA-BNS engineers visited the site on May 9 to begin the process. The wastewater facility being considered will utilize a planted gravel filter, otherwise known as constructed wetlands, to provide sewage treatment, while adding aesthetic values to the university campus. The planned system will provide treatment for the new library and four adjacent buildings and is seen as the first step in providing a comprehensive wastewater management plan that will eventually benefit the 11,500 students that use the campus.

## **I. Cultural Center of the Philippines Explores Wastewater Treatment Options**

PSA Senior Sanitation Advisor Dave Robbins met with staff of the Cultural Center of the Philippines (CCP) to initiate a process for exploring wastewater treatment options for their Roxas Boulevard complex. There are unique challenges for the CCP in terms of wastewater planning, mostly relating to the high variability of the flow. However, there are opportunities as well. The abundance of open space at the site along with the great potential for cost recovery by realizing the added value of reclaiming the treated effluent for landscape irrigation provide additional infrastructure options not available at typical sites in Metro Manila. To effectively account for all of the costs and benefits associated with this project, the initial effort will be to develop a long-term wastewater infrastructure plan. This will consider both centralized and decentralized options along with various technologies ranging from simple on-site non-

mechanical systems like constructed wetlands for individual buildings, to mechanical systems such as the sequencing batch reactor (SBR) that could be used for building clusters. Beginning in late May, CCP and PSA staff, along with a contracted consultant, will begin the planning process with a full cost/benefit analysis that will be presented to the CCP board before September 30, 2008.

#### **J. Metro Cebu Water District Begins Septage Management Program Consultations**

The PSA is helping the Metro Cebu Water District in the social preparations, promotion campaign, and participatory consultations for the proposed septage management program for Metro Cebu. This is in collaboration with another USAID funded project, the Philippine Water Revolving Fund (PWRF) Support Program which is currently assisting the MCWD in developing a feasibility study on septage management.

On June 10, representatives of seven local governments located within the Metro Cebu Water District's (MCWD's) jurisdiction participated in a 1-day orientation and consultation meeting held at MCWD in Cebu City. The participants learned about the need for septage management, discussed the role of the LGUs and MCWD on sewerage and septage management, and discussed the LGUs' plans, programs, and strategies relevant to sanitation.

#### **K. PSA Meeting with Davao WD, City Councilors, and MEDCO**

PSA staff met with the Davao City Water District (DCWD) last April 17 regarding a proposed septage management program for Davao City. DCWD is headed by General Manager Rodora N. Gamboa. Another meeting was held to brief City Councilors of Davao City on the potential assistance to DCWD. Councilors who represented the City were Councilor Leonardo R. Avila III and Councilor Pilar C. Braga, PhD.

PSA staff also met with the Mindanao Economic Development Council (MEDCO) to discuss how they can help spread the word about the need for improved sanitation throughout Mindanao. The first step will be for MEDCO to put the PSA Sanitation Technology Information Kit files on its website. Possible next steps include sourcing funds to print copies of the kit so they can be distributed at future MEDCO workshops, and including sanitation in the required infrastructure component in LGU planning.

### **IV: OTHER ACTIVITIES**

#### **A. PSA Participates In SCOTIA Lessons Learned Conference**

On May 28, the Philippine Sanitation Alliance (PSA) participated in the Sustainable Coastal Tourism in Asia (SCOTIA) project close-out and lessons learned conference, held at the Mall of Asia in Pasay City, Manila. The PSA exhibit was visited by many of the attendees, which provided an ideal venue for PSA program information dissemination. Approximately 120

SCOTIA partners, staff, friends and supporters came to participate in the conference that included speakers on several SCOTIA projects. Most notable was a discussion of the SCOTIA project to improve sanitation at Puerto Galera in Mindoro, where an innovative user fee system has been implemented to fund a large sanitation project.

## B. Cambodian Delegation Visits Iloilo Pilot; Attends IYS Launch



A delegation from Phnom Penh, Cambodia visited Iloilo City on April 3 and 4 with support from the USAID Environmental Cooperation-Asia (ECO-Asia) program. The delegation was headed by Deputy Governor His Excellency Mann Chhoeurn, who was accompanied by the Chief of Toul Sangkae Sub-district Mr. Say Kosal, Field Coordinator of Cambodian NGO Center for Development Ms. Tep Ketsiny, and USAID ECO-Asia Cambodia Country Coordinator Mr. Khoy Khim. The visit was part of a twinning between the two cities supported by ECO-Asia. The Cambodian delegation learned about Iloilo’s successful public awareness campaigns, supported by the PSA project, and visited Iloilo Doctors’ Hospital, the first hospital to participate in the city’s wastewater improvement efforts by building a wastewater treatment facility and educating students about the importance of sanitation and hygiene.

The delegation met with faculty members and student representatives of the Western Institute of Technology (WIT), member of the PSA technical working group in Iloilo City. WIT provides technical support to Iloilo City in design work for low cost sanitation systems. The delegation also witnessed the local launching of the International Year of Sanitation (IYS) which was highlighted by a moving mural exhibit and press conference. The IYS is a global event which underscores the importance of raising awareness on good sanitation and hygiene.

Phnom Penh and Iloilo will continue to collaborate in sharing best practices on sanitation promotion over the year.

### **C. PSA Presents During Earth Day Jam**

PSA Project Manager Lisa Lumbao presented the PSA project and concepts on sustainable sanitation last April 25 during the Earth Day Jam 2008 concert in Quezon City. More than 20 bands and musical artists presented during the five hour outdoor event, which was also featured on television. The presentation is part of the outreach activities of the PSA project to reach out to as many audiences as possible to promote the importance of improved access to sustainable sanitation.

### **D. Final Public Hearing Conducted in Dumaguete for Septage Treatment Facility**

The proposed septage treatment facility of Dumaguete City was granted an ECC by the DENR and Clearance by the DOH in 2007. To further inform and educate the Barangay Camanjac officials and residents living near the STF site, orientation and discussion meetings were conducted on April 1, 2008 at the barangay hall of Camanjac, on May 24, 2008 at the Council Session Hall of Dumaguete City Hall, and on May 31, 2008 again in the barangay hall of Camanjac.

Three medical doctors, namely: Dr. Ma. Lourdes Ursos, M.D. MPH, Dr. Walden Ursos, Epidemiologist, and Dr. Gamaliel Garcia, Infectious Disease Specialist, attended the May 24 meeting. Dr. Garcia pointed out that the possibility of aerial transmission of disease from the facility is very remote because there must be direct contact between a pathogen and any person or potential host for infection to occur. Dr. Walden Ursos stated that the risk of being contaminated with common diseases like TB, pneumonia, or getting sick from smoking and air pollution is much higher than the health risks from a septage treatment plant.

In the May 31 meeting, in addition to the three above medical doctors, Dr. Noel de Jesus, City Councilor and practicing physician, and Dr. Ely Alcala of Silliman University also participated. A planned site visit to MWSS facilities in San Mateo, Rizal (North Septage Treatment Facility being commissioned by East Zone concessionaire Manila Water) and in Dagat-dagatan, Caloocan City (Sewage-Septage Treatment Facility operated by West Zone concessionaire Maynilad Water) is scheduled in July 2008.

## **IV. Management and Finance**

The project is on track in terms of overall management and expenditures.

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

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

- Following up with private housing developers to prepare pilot projects.
- Conduct a one-day technology-finance workshop for the health sector, and one for the hotel and restaurant sector.
- Conduct septage management and promotions workshops with Metro Cebu Water District and Davao City Water District.

- Support the six former LINAW cities in developing and completing their planned pilot projects, with a focus on implementation of septage management programs.