

Providing access to water in Manila's slums



Annual report 2008 – 2009

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1. Introduction: Summary

1.1 Objectives

The project started in October 2008. Its goal was to create an adapted water distribution network and a relevant water supply management system, along with installing fire hydrants and public showers in slums. This goal is in line with the government's objectives, which are to provide 86,6% of the population with access to drinking water and 83,8% with access to toilets between now and 2015. The project thus responds to an urgent need pointed out by the NWRB¹: small scale operators should be enabled to launch activities as soon as possible to distribute water to underprivileged areas where no operator intervenes. In such areas, according to the WSP², the poorest households spend around 20% of their income to get water, which is most of the time of very poor quality and generates chronic diseases.

This report describes the activities carried out between September 2008 and December 2009.

The **general objective** of the project is to give access to running water and to improve the living conditions of people living in deprived areas of Metro Manila in the Philippines.

Specific objective: a running water network, fire hydrants and sanitary complexes are installed in the areas. The water is sold at an inferior price as the one offered by water resellers. The families are trained and users committees are created.

There are 3 expected results that were defined at the beginning of the project.

1. **A pilot experience in managing a water supply network in urban deprived areas is conducted.**
2. **The hygiene, health and financial situation of the families improve thanks to the access to running water.**
3. **A sanitary complex provides access to toilets, showers and a wash tub and promotes social links.**

During this period, the following activities were conducted:

- Tubig Pag Asa (TPA) and Water & Life Philippines (W&L) were set up. TPA is a company in charge of building the water supply network, distributing the water and collecting the payments. W&L is an association in charge of prospecting and training the families and following-up on the sanitary aspects.
- Partnerships with the local operators, authorities and population were forged.
- A water network was built in Pitong Gatang and the water distribution started.
- A fire hydrant was installed in Pitong Batang.
- A social and sanitary survey was conducted among the families.

A convention was signed in May 2009 to define the partnership framework with Streams of Knowledge – an association gathering small operators, cf. 2.4 – and the water concessionary for East Manila, Maynilad Water (cf. 2.4). In accordance with this convention, Maynilad supported the installation of a water network by TPA in the Sipac Area (connection to its own network and water sold at a preferential rate). Streams of Knowledge facilitated the negotiations with the concessionary and works along with W&L on the public toilets project.

¹ National Water Resource Board

² Water and Sanitation Program

W&L conducted a survey and mapped the potential intervention areas of Sipac, Pitong Gatang and Davila, in order to reflect on the building of the network and to define the target population.

A local team was gathered: the plumber, the coordinator, the administrative assistant and the collectors were all recruited among the intervention area's population. The team is led by a French program manager and work in an office which was set up in Sipac.

The collectors and the program manager were trained in collection practices by micro-credit organisations.

A promotion and collection system was defined. The coordinator, with an extensive micro-credit background, developed tools and techniques to ensure the internal control.

A monitoring system of the water network was set up to detect leaks and potential thefts.

A series of trainings and information material were created to promote the project among the community and to explain the proposed services.

Users committees are being set up to contribute to the launch and the continued existence of the project. As activities are developed, the members are identified and the role of the committee is defined.

Follow-up indicators were defined and are being monitored to ensure the future evaluation of the project, as far as the social, sanitary and financial aspects are concerned. A management system is being developed by a local company and accounting software was installed.

After Sipac's pilot project, TPA and W&L, still supported by the concessionary and Streams of Knowledge, are prospecting new areas in Manila and other towns to replicate the project.

Contacts were made and research was conducted concerning dry toilets. This part of the project should be completed in 2010.

1.2 Means

Human resources:

- 1 French program manager, responsible for TPA and W&L
- 1 part-time accountant (external consultant for TPA and W&L)
- 1 administrative assistant (TPA)
- 1 plumber (TPA)
- 1 part-time coordinator (consultant for TPA and W&L)
- 4 freelance collectors (freelance for TPA)
- 1 part-time expert consultant on network building (external consultant TPA)
- Auxiliary plumbers hired for specific tasks during the building up of the network (TPA)

Material means (mutualisation of TPA and W&L):

- 1 office
- 2 computers
- 1 printer
- Office supplies
- 1 accounting software « QuickBooks Pro »
- Pedagogical and didactical material (posters, brochures...)

1.3 Conclusion

The prerequisite steps before the launch of the activities have been taken: two local structures, TPA and W&L, were created, a team was set up, know-how and a methodology were created and partnerships and collaborations with local players were forged. TPA started building a water supply network in Pitong Gatang. As of December 31st, 207 families of Pitong Galang, the first intervention area, are clients of TPA. 188 of them have running

water in their homes and get it at an inferior price to the one they used to pay to water dealers. A fire hydrant was installed in this area and the building work should start in Davila, the second zone, beginning 2010. New prospective zones have been identified for a potential extension of the activities. Contacts were made and research conducted in anticipation of the construction of the sanitary complex.

2. Realizations according to the initial objectives

2.1 Brief description of the action and reminder of the initial objectives

Eau et Vie is a French association whose action is based on social entrepreneurship and close work with the communities. In collaboration with public services, it wishes to contribute to the creation of small companies in deprived urban areas in developing countries (where no one wishes to invest) to create and manage water supply networks. These small social concessions will provide good quality water to families and assume the risk linked with the recovery. At the end of a 10-year concession and once the project is viable, the public service takes over the activities. At the same time, Eau et Vie delivers adapted trainings on hygiene, environment and security against fires.

As far as Maynilad is concerned, 89% of the distributed water is lost; 1m³ of water costs 22 pesos to the families connected to their network, but 150 pesos to the others. So the connected families will spend 150 pesos a month on water, whereas the others will have to spend 1 000 pesos a month for the same quantity of water.

Reminder of the initial objectives:

The **general objective** of the project is to give access to running water and to improve the living conditions of people living in deprived areas of Manila and Ilo Ilo (Panay island) in the Philippines.

Specific objective: A running water network, fire hydrants and sanitary complexes are installed in the areas. The water is sold at an inferior price as the one offered by water resellers. The families are trained and users committees are created.

Follow-up indicators of the specific objective:

- 100% of the houses in the area have access to running water
- 1 fire hydrant is installed for 500 families
- Water becomes 3 times cheaper compared to what the families used to pay to water dealers
- Health expenses and absences caused by sickness fall by 15%

Activities per result:

Result 1: A pilot experience in managing a water supply network in urban deprived areas is conducted.

Description: TPA buys water from Maynilad Water to resell it to the families. The water is distributed through a robust PVC³ system. Tests on the quality of water are conducted regularly. Building the network implies connecting to the Maynilad network, laying down pipes and installing individual usage counters. The collectors, all recruited in the slum itself, follow an adapted training inspired by micro-credit practices.

³ Polyvinyl chloride

Result 2: The hygiene, health and financial situation of the families improve thanks to the access to running water.

Description: Collectors provide trainings on hygiene and environment. A part of the profits will be invested in buying trash cans and organising the collection of the garbage. This action will help create jobs in the community. W&L will install fire hydrants in the areas and TPA will ensure their maintenance. Community members will get training from Total Philippines on fighting against fire and transmit their knowledge to the local population.

Result 3: A sanitary complex provides access to toilets, showers and a wash tub and promotes social links.

Description: W&L installs the sanitary complexes (toilets, showers and wash tub) built by TPA following an ecological sanitation technique, where excrement produces compost. The compost will be sold to cover up for the toilets maintenance expenses. This action will help create jobs in the community.

2.2 Realizations' calendar for 2008 - 2009

	Sept-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	June-09	Jul-09	Aug-09	Sept-09	Oct-09	Nov-09	Dec-09
Program manager's arrival	█															
Survey and mapping of the Sipac areas		█	█													
Recruitment of the local team		█	█				█	█								
Creation of TPA and W&L								█								
Signature of contracts with Maynilad and Streams of Knowledge									█							
Promotion and training at Pitong Gatang								█	█	█	█					
Building work from Maynilad											█	█	█			
Building of the network in Pitong Gatang														█	█	█
Beginning of the water distribution														█	█	█
Installation of the fire hydrants															█	
Promotion and training at Davila												█	█	█	█	█
Prospection in other areas					█	█	█	█	█	█	█	█	█	█	█	█

2.3 Location of the project



In November 2008, a survey and a mapping of the area were conducted in **two neighbourhoods in Sipac (Pitang Gatang and Davila)**. The goal was to list the exact number of families, of houses and of houses already equipped with a water meter. The survey found out that 86,4% of the families were not connected to the Maynilad network, which confirmed the necessity of working in those areas. The contract with Maynilad specifies that TPA will provide water only on the bridges and that Maynilad will take care of the cement floor zones.

Survey in Pitong Gatang and Davila – November 2008										
Bridge zones	Number of houses		Number of families		Total number of inhabitants		Houses connected to water network		Houses still to connect	
Pitong Gatang	511	10,7%	539	11,4%	2 535	16,6%	12	38,3%	499	38,3%
Davila	364	89,3%	484	88,6%	3 093	83,4%	70	61,7%	294	61,7%
Total	875	100,0%;	1 023	100,0%	5 628	100,0%	82	100,0%	793	100,0%

The **Pitong Gatang** area is formed by 5 bridges and 2 cement floor zones, where 573 families live. 539 of them live on bridges, representing 2 535 people. Only 2,3% of the houses built on bridges have a water meter. **TPA's targets are thus the 499 houses built on bridges, which are not connected to the Maynilad network. ¾ of the houses are built on stilts and linked up with wooden bridges.**

The **Davila** area is formed by 6 bridges and 2 cement floor zones, where 582 families live. 484 of them live on bridges, representing 3 093 people. Only 19,2% of the houses built on bridges have a water meter. **TPA's target are thus the 294 houses built on bridges, which are not connected to the Maynilad network. Nearly 85% of the houses are built on stilts and linked up with wooden bridges.**

Thus TPA wants to connect 793 houses to the network in the whole Sipac area, which represents roughly 1 000 families.

2.4 Involved partners

TPA and **W&L** are registered in the SEC⁴.

Streams of Knowledge is an autonomous organisation, partner of the UNDP⁵ and the Water and Sanitation Program of the World Bank. It supports policies aiming at providing long term access to water and sanitation, health and hygiene services. Streams of Knowledge has partnered with W&L to negotiate with Maynilad and to build the sanitary complex.

Maynilad is the water concessionary which allows TPA to intervene in the selected areas, installs the infrastructure needed to build up the water network in the deprived areas and sells water to TPA at a preferential rate. Maynilad obtained in 1997 a 25-year concession to distribute water in the west side of Manila.

Iwadco is a family-owned company similar to TPA which provides counselling and provides training to TPA.

The Barangay captains of Pitong Gatang and Davila support the project. They recommend people to form the teams. The barangay captain of Pitong Gatang intends to coordinate his efforts with those of W&L in the trainings against fire and the construction of the public toilets. A contract will be signed with each of the districts concerning the water concession.

UPLIFT Philippines is a micro-credit organisation that helps training the team.

Moreover, some of the **donors funding the projects** are involved in other aspects too. For instance, one of the donors made a 4-day mission in Manila, so that the project could benefit from his expertise. In the future, Eau et Vie plans to promote such competence transfers with donors who are willing to do so.

2.5 Target groups : nature and number

At the end of December 2009, TPA has signed 207 contracts and distributed water on 3 bridges to 188 houses. Each house has its own meter linked to a cluster.

Users committees were organised in the area to facilitate the communication with the users and relay problems or needs. One of the board members of W&L is a member of this committee.

2.6 Implemented actions (progress report)

During the first 16 months of the project, the feasibility study conducted in the beginning of 2008 was completed and enabled to choose the two intervention areas: Pitong Galang and Davila, on the Sipac zone.

A survey and a detailed mapping of the neighborhoods were conducted on both areas. The number of houses, families and inhabitants was determined and the construction methods defined.



The negotiations with Maynilad continued and enabled to validate the two zones as intervention areas of the project and to define the operational and financial terms. Maynilad indicated that the pipes in the Sipac area had been replaced in 2007, but that people constantly stole water from the network as meters were placed next to the houses. The bills were sent on a monthly basis but many clients didn't pay and Maynilad didn't wish to cut them off, because it was afraid that people might retaliate. TPA suggested installing the

⁴ Security and Exchange Commission

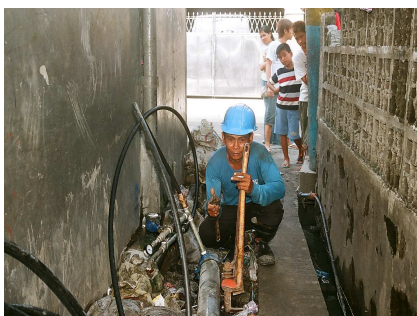
⁵ United Nations Development Program

meters at the beginning of the network to be able to control it integrally. After more than 6 months of negotiation, a partnership agreement was signed with Maynilad and Streams of Knowledge stipulating that TPA would build up and manage the water network in the areas of Pitong Gatant and Davila. This contract bounds Maynilad to conduct the works enabling TPA to get connected to the main network and to sell the water to TPA at a preferential rate. The cost of the project was evaluated to 1,4 million pesos (more than €21 000). According to the contract, Maynilad will take 600 000 pesos in charge and TPA will bring the other 800 000 pesos (€13 333).

The team was recruited in the areas and trained.

Different types of tools and support material were conceived to organise the promotion of the project, the collection and the follow-up of the activities. Each collector was trained to use them properly. The procedures to promote the collection, the follow-up and control methods were defined and implemented.

Community based information meetings were organised towards the families of Pitong Galang and Davila. The meetings took place in TPA's office. After the meetings, a follow-up of the families was conducted. Home visits made it possible to complete the information gathered during the collective information meetings. Moreover, meetings were also organised on the spotted areas, to reach the ones who could not go to TPA's office. Finally, a door-to-door operation was conducted to meet and try to motivate the people who were not at first interested by the project. The project is most frequently enthusiastically welcomed by the population.



Maynilad's construction works

Maynilad's construction works started in August 2009 and were somewhat delayed by the rainy season, poorly fixed pipes and negotiations that had to be carried out with some of the inhabitants. After the digging phase, Maynilad set down the pipes, moved the meters, connected the network to the main pipe and installed TPA's counter for Pitong Gatang. A pressure test was conducted on one of the two areas and turned out positive. Bacteriological tests were also conducted.

TPA was thus able to start the construction of its network from October onwards.



TPA's construction works were carried out with the team's participation



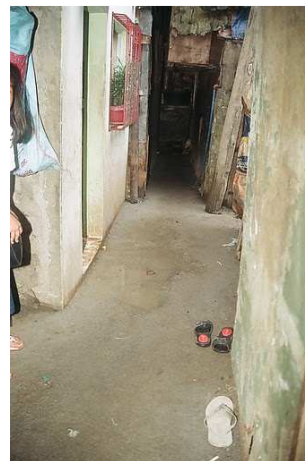
Meters were grouped together in a cluster and the installation was secured



Pipes were connected directly to the homes



Building finishing and covering up of the paths with cement



The plumbing works conducted by the program manager, the Iwadco consultant and the chief plumber were sound and needed afterwards only minor adjustments. The first 70 clusters were installed in October and distribution started for 40 clients. After 4 days of activity, pressure and meter problems appeared: the available pressure was very low, whereas the meters displayed a large consumption, not matching reality. After analysing the problem, TPA returned the whole set of meters to the provider and installed new, more appropriate ones. The problem was thus solved, ensuring the satisfaction and trust of the clients. The works in other zones could then begin.

At the end of December 2009, 207 houses – among the 499 houses on the Pitong Gatang bridges that were not connected to Maynilad – joined TPA. The works were ended up for 188 clients who had then current water in their homes. At the end of December, the cover rate was up to 41% in the Pitong Gatang area, and up to 26% in the whole of Sipac.

Target population		Results as of December 31 st 2009							
Potential clients in Sipac	Among which, potential clients in Pitong Gatang	Houses in Pitong Gatang which are members of TPA	Cover rate in the Pitong Gatang area	Cover rate in the Sipac area	Number of houses in the Pitong Gatang area connected to the TPA network			Water cover rate in the Pitong Gatang area	Water cover rate in the Sipac area
					Counters	Pipes	Total		
793	499	207	41%	26%	187	1	188	38%	24%

2 life stories:

LUCILA HACLA, 46 years old.

Married to a fisherman and a mother of 3 boys, Lucila has been living in Pitong Gatang since 1993. Born in the Samar province, 22 hours of boat away from Manila, Lucila and her husband decided to move to the capital to find jobs and improve their lives. Sadly, Lucila found no job, but with what her husband earned with the fishing, they could buy a small wooden shed in the on-stilts slum.



There is only one room in the house. The 2 younger boys go to school and the oldest is looking for a job. Lucila works now with TPA as a collector. She is happy to have a small activity and earn some extra money, but having running water in her home changed her life even more drastically. Before TPA, the family bought the water from water dealers and paid 4 pesos for 20 litres. They had to carry the water back home, which was heavy, difficult and time-consuming. Because the water was so expensive, it was impossible to do the laundry every day, not even during heat waves. Now, even the families of a slum like Sipac have access to running water. They are now able to take a shower everyday, do the laundry when needed and cook and wash the dishes more easily.

The family now spends only 6 pesos a day on water, instead of 20 pesos daily before. Lucila intends to use the extra money she saves on water to renovate her home. She still has to buy her drinking water outside until the quality tests on the water provided by Maynilad via TPA are conducted.

MARTHA BUENCAMINO, 42 years old

Married to a security agent, Martha has a daughter who attends primary school. Martha was born in the province of Ilo-Ilo, which she left with her husband in 1990 to try to get jobs and a better living in Manila. They bought a small two-bedrooms house with a tiny living-room serving as kitchen as well. Thanks to TPA they have now access to water in their own home. Before that, they had to go fetch the water by the water dealers and wait for cans to be filled up.



Thanks to running water, each member of the family can have a shower at least once a day. Housekeeping tasks are much easier, since getting water is not a problem anymore.

Before TPA, Martha spent 30 pesos a day on water, compared to only 10 nowadays, if she doesn't have to do the laundry: she saves money every day. For the time being she still buys mineral water on the outside, but if the quality tests turn out to be positive, Martha and her family will be able to drink the tap water.

During all these past months, the prospection of other needy zones was led. Several zones were thus spotted in Metro Manila:

- Karisma Ville: 1 000 families who used to live in the slums along the rails were relocated in this area of Malabon City and have currently no access to running water. TPA and W&L consider intervening in this area in 2010, in partnership with the association of the inhabitants of the zone, Maynilad Water and Iwadco. Negotiations are being held.
- FloVi in Malabon City: Maynilad favorably considers entrusting the management of this area to TPA. Negotiations are being held.
- Parola in Manila City: Maynilad covers this area of 20 000 people. Nevertheless, some neighborhoods don't seem to be getting water and the relationships between Maynilad and the local association could be better. This subject should be discussed with Maynilad.

Prospecting is also being conducted outside Metro Manila:

- A meeting with the PCUP⁶ was held. This organisation manages the relocation areas, which generally don't have access to water. The engineer we met was strongly impressed by the TPA project and will get some information about new relocation areas. Negotiations must continue.
- The Metro Iloilo Water District (MIWD) of the town of Ilo Ilo is interested in covering deprived areas of the town. A feasibility study revealed a good potential, but as the MIWD is being privatised, the board decided to wait until 2011 to start collaborating with TPA and W&L.

As far as sanitary complexes are concerned, their location and the water treatment will have to be studied. The collecting and selling of the compost produced in the toilets will have to be organized. The INWEH⁷ recently launched a report stressing the importance of public toilets in fighting against poverty. Two associations have already been identified, with which we might collaborate on this field: the **Tulay Ng Kabataan Foundation** (to associate families in collecting and selling the compost) and the **Foundation for a Sustainable Society**, who builds up toilets. Furthermore, some contacts have been made concerning dry toilets. In Santa Rosa, a town of the Laguna province, South of Manila, 3 schools were equipped with Ecosan toilets.

3. Means

Human resources:

- 1 French program manager, responsible for TPA and W&L
- 1 part-time accountant (external consultant for TPA and W&L)
- 1 administrative assistant (TPA)
- 1 plumber (TPA)
- 1 part-time coordinator (consultant for TPA and W&L)
- 4 freelance collectors (freelance for TPA)
- 1 part-time expert consultant on network building (external consultant TPA)
- Auxiliary plumbers hired for specific tasks during the building up of the network (TPA)

Apart from the accountant, all the team members live in the intervention areas. Weekly coordination meetings are held with the whole team. In addition to that, 2 advisors/supervisors based in France bring their support to the local team.

Material means (mutualisation of TPA and W&L):

- 1 office
- 2 computers
- 1 printer
- Office supplies
- 1 accounting software « QuickBooks Pro »
- Pedagogical and didactical material (posters, brochures...)

An activity management software producing statistics is currently being developed by a local company.

4. Conclusion for 2009 and perspectives for 2010

The first operational and financial results of the pilot project where TPA builds up and manages a water network and W&L ensures the social follow-up and the relationships with the local partners, are more than encouraging. 188 houses have now access to running water and 41% of the first intervention zone is covered. Maynilad – the water concessionary of western Manila and our partner on the project – is satisfied with the impact and encourages TPA to work in new zones. In 2010 TPA intends to finish the building up of the

⁶ Presidential Commission for the Urban Poor

⁷ Institute for Water, Environment & Health

network in Davila, to cover all the neighbourhoods in Pitong Gatang and Davila and to launch new activities at a minimal level on two other zones in Manila and one zone in the Ilo Ilo province.

W&L should, in addition to ensuring all these developments, install dry toilets in Pitong Gatang. In order to do so, a feasibility study has to be conducted and funds have to be found. Moreover, the impact of the project, as far as the living, social, sanitary and financial conditions of the families are concerned should be measured. So that TPA's and W&L's activities can continue on the long term, the team has to be reinforced and funds have to be found locally (prospective donors include: French Embassy, ADB, UNDP, other embassies, etc.).

TPA hopes to be self-sustained as early as 2010. The January and February 2010 results suggest that TPA could reach that objective.