



# PHILIPPINE CENTER for WATER and SANITATION (PCWS)

## Profile

Philippine Center for Water and Sanitation ([www.itnphil.org.ph](http://www.itnphil.org.ph)) used to be known as International Training Network (ITN) when it started in 1990 as a project of the Netherlands-based Institute of Infrastructure, Hydraulics and Engineering (IHE). It registered as a nongovernmental organization in 1998 and started supporting itself through its professional fees. PCWS now undertakes researches, trainings and consultancies. It also provides technical assistance to local governments, communities and NGOs. Engineers of PCWS work with communities in developing low cost water supply and sanitation technology options, thereby enhancing local initiatives leading to benefits in health and livelihood.

PCWS leads the WASH (water, sanitation and hygiene) Coalition Pilipinas, a loose coalition of organizations, local governments, communities and individuals working with national and local policy makers as well as the poorest communities to improve access to WASH in areas of the Philippines most in need of them. WASH Coalition Pilipinas and PCWS are partners of the professional association Water Supply and Sanitation Collaborative Council ([www.wsscc.org](http://www.wsscc.org)).

## Current Priority Programs/Projects

### LOCAL WATCH

Low-cost alternative wastewater treatment for communities and households (LOCAL WATCH) is a sanitation system that includes toilets, biogas digester septic tank, baffled reactor, anaerobic filter, gravel filter and lotus/fish pond. PCWS developed LOCAL WATCH in response to the fact that sanitation is lagging behind in the Philippines as it is not a priority of national and most local governments, NGOs, communities, etc. partly due to the belief that sanitation technologies like wastewater treatment systems are expensive and complicated.

### *Ferro-cement Houses with Wastewater Treatment and Rainwater Harvesting Systems*

This demonstration project on how to build a ferro-cement house with low-cost wastewater treatment and rainwater harvesting systems is meant to show that these simple, low-cost technologies help conserve water, prevent pollution, and enable families to adapt to climate change. It also shows that sanitation is neither expensive nor complicated and is achievable even in a difficult, congested, flood-prone urban environment or in an isolated peri-urban area. This project represents the cumulative learnings of PCWS from its field-based implementation experiences and its interactions with households and communities. PCWS hopes that this demonstration project could inspire the passing of enabling local and national policies for both human health and environmental protection.

### *Technical Assistance to Local Governments, NGOs and Communities on Water Supply, Sanitation and Hygiene (WASH)*

PCWS provides technical assistance to local government, communities and NGOs to improve water supply, sanitation and hygiene. It also undertakes researches, trainings and consultancies in partnership with relevant organizations.

PCWS addresses the lack of knowledge, awareness and appreciation of low-cost sanitation technologies among policy makers. It also encourages increased investments in sanitation and the development of enabling policies. Local governments are called upon to include among their priorities the implementation of WASH projects.

Aside from responding to requests for technical assistance, PCWS presents low-cost appropriate alternatives to create positive changes. It addresses the need to make sanitation affordable to low-income households. Expanding the range of water supply and sanitation systems presented to communities and households provide them with more options and information.

#### *Action Researches with Households*

PCWS continues to do researches with households on more appropriate designs of water supply, sanitation and hygiene systems and how these could be made more affordable to low-income families. Even after the implementation of projects, the communities and households are encouraged to maintain consultative access to PCWS engineers, especially for those who have acquired skills in building their own and their community's water supply and sanitation systems.

#### **Completed Projects**

1. *Community-Managed Potable Water Supply, Sanitation and Hygiene (CPWASH) Project* – implemented for the Bureau of Agrarian Reform Beneficiaries Development of the Department of Agrarian Reform from 2008 to 2010 in the provinces of Iloilo, Negros Occidental, Mindoro, Benguet, Ifugao, Ilocos Norte, Ilocos Sur, Isabela, Palawan, Masbate, Leyte, Surigao del Norte and Agusan del Sur. – 2010
2. *Ensuring Access to Safe Water for Households in Communities Affected by Floods in the Philippines*, implemented for the World Health Organization with support from the Spanish Government in the provinces of Albay, Sorsogon, Western Samar and Northern Samar. – 2009
3. *Study on the Sustainability and Access to Water and Sanitation in Nine Communities in the Philippines*, conducted for UNESCAP in the provinces of Albay, Sorsogon and Masbate – 2009
4. *WASH (water, sanitation and hygiene) Radio Campaign*, implemented in cooperation with Water Supply and Sanitation Collaborative Council and Silliman on Air Radio Program of Silliman University. – 2009
5. Peer review for SEAMEO TROPED of two training modules: *Household Water Treatment and Safe Storage Trainer Manual* and *Options for Household Water Treatment*. – 2009
6. Review and field testing for the World Health Organization – Western Pacific Regional Office (WHO WPRO) of the draft (1) *Water Safety Plan Training Manual for Tube Well Mechanics and Technicians* and the (2) *Handbook on Water Safety Plan for Department of Public Health Engineering (DPHE) Tube Well Mechanics and Other Grassroots Workers*. -- 2008
7. *Country Pilot Project on Costing Methods for Improved Drinking Water Systems*, a research study conducted for the World Health Organization. – 2008
8. *Mapping of Organizations implementing Household Water Treatment in the Philippines*, a study conducted for the World Health Organization and the Department of Health. – 2007
9. *Local Government Financing for Water Supply and Sanitation*, a study conducted for WaterAid. – 2007

10. *Rainwater Harvesting for Drinking Water Supply of Five Municipalities in Tawi-Tawi*, implemented in cooperation with Peace and Equity Foundation. --2006-2007
11. *Technical assistance to 33 local governments in the Autonomous Region of Muslim Mindanao on water resources inventory; developing water, sanitation and hygiene (WASH) action plans; and social preparation of communities to implement WASH projects*, implemented in partnership with the Local Government Support Program. -- 2006 and 2007
12. *Construction of communal water systems, wastewater treatment facilities and rehabilitation of drainage systems in peri-urban areas*, implemented for HealthDev Institute, -- 2006-2007
13. *Small-scale Private Service Providers of Water Supply and Electricity in the Philippines*, a study conducted for Economists Association. -- 2006
14. *Field Testing of Tools and Conduct of an International Training on Participatory Monitoring*, implemented in partnership with International Water and Sanitation Development (IWSD), Harare, Zimbabwe. -- 2005
15. *Drinking water supply for 10 small island barangays of South Ubian, Tawi-Tawi*, implemented in partnership with AusAid-PACAP. --2004-2007
16. *Regulating Public-Private Partnerships for the Poor*, a study conducted for WaterAid -- 2003-2004
17. *Charges and Costs of Water Connections for the Urban Poor*, a study conducted for Cranfield University, UK -- 2003
18. *Monitoring Study of the Rural Environmental Sanitation Project*, conducted for the Japan International Cooperation Agency (JICA). -- 2003
19. Pre-testing of chapters in books on water and sanitation published by the Hesperian Foundation. -- 2003
20. *Improving Local Government Capacities in Potable Water Systems Fund Sourcing and Management*, implemented in partnership with LGSP. -- 2002-2003
21. *Operation and Maintenance of Communal Water Systems in the Special Zone of Peace and Development in Mindanao*, implemented in partnership with SZOPAD Social Fund. -- 2001
22. *Capability Building for the Operation and Maintenance of Communal Water Systems for Ex-Moro National Liberation Front (MNLF) Combatants*, implemented in partnership with SZOPAD Social Fund. --2000
23. *Demonstration Project of a Community-Based Management Approach for Water Supply in Agusan del Sur*, implemented in partnership with LGSP and the Provincial Government of Agusan del Sur. -- 1999
24. *Capability Enhancement on Water Supply and Sanitation Systems for Municipal Engineers of Siargao Archipelago*, implemented in partnership with LGSP. -- 1998

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# Low-cost Ferro-cement Technologies for Water Supply, Sanitation and Hygiene



*Iron removal filter*



*Rainwater harvesting system*



*Reservoir*



*Spring box*



*Biogas digester septic tank*



*Low-cost alternative wastewater treatment for communities and households (LOCAL WATCH) includes biogas digester, baffled reactor, anaerobic filter, gravel filter and pond.*



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