

Gawad Kalinga (GK), which means to "give care" in Filipino, is officially known as the Gawad Kalinga Community Development Foundation, a Philippine-based poverty alleviation and nation-building movement.

In the Philippines, Gawad Kalinga is building empowered communities by people with faith and patriotism; driven by a culture of caring and sharing, dedicated to eradicate poverty and restore human dignity.



In GK Mapahiusa Village in Tanjay City, Negros Oriental, the water collected helps sustain the village's "Bayan-Anihan" or sustainable agriculture program where each family is responsible for maintaining a garden, the produce from which is used both for personal consumption as well as for the community's livelihood programs. This also connects the families to the environment as they learn more about science and conservation as they do their tasks.

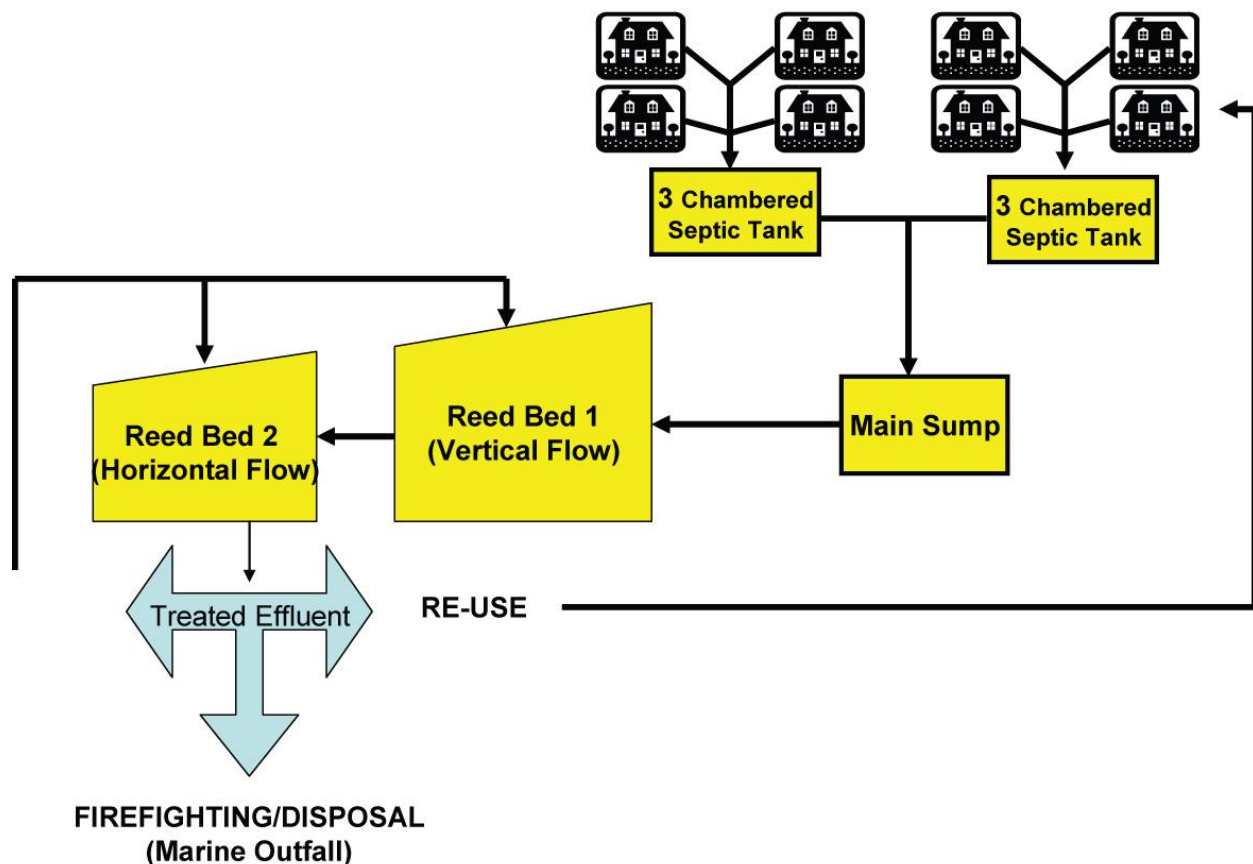
In rural areas such as Tanjay, a movement supported by the both the national and local government units to promote environment-friendly waste disposal and sanitation facilities is gaining ground with the use of green technology such as reed bed systems and biogas digesters that are connected to each GK household.

Wastewater from the community that is coursed through the reed bed system is cleaned by micro-organisms living in the root system and which use the sewerage as nutrients for growth, resulting in clean effluent water. Similarly, solid waste is collected through a process of anaerobic digestion which breaks down and removes harmful bacteria from the waste, producing usable methane which can then be used as fuel for cooking or power.

Another GK example can be found in the Philippines city of Bayawan, where a wastewater system using septic tanks for primary treatment, and constructed wetlands for secondary treatment are utilized. Treated effluent is then reused for agricultural irrigation.



The plant layout is shown below:



The construction was carried out by the City Engineering office from May 2005 to August 2006. The constructed wetland was inaugurated in September 2006 and has been in operation ever since. The GTZ sanitation program in the Philippines came to an end in March 2009, and the constructed wetland now continues to be operated by Bayawan City Council.

For more information:

- Guino-o, R. S., Aguilar, A. S., Oracion, E. G. (2010) The efficiency and social acceptability of the constructed wetland of Bayawan City, Negros Oriental, paper under review by the editorial board of Silliman Journal, Silliman University, Philippines

<http://www2.gtz.de/Dokumente/oe44/ecosan/en-efficiencyacceptability-constructed-wetland-2009.pdf>

- GTZ (2008) FAQs Constructed Wetlands. A Sustainable Option for Wastewater Treatment in the Philippines, GTZPhilippines and Bayawan City.

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- Bayawan City (2007) Bayawan City adopts ecosan as a tool for health and environmental management, Mayor Herman P. Sarana, presented at International Conference on Sustainable Sanitation, Dongsheng, China, 28 August 2007,

<http://www.ecosanres.org/icss/proceedingspresentations.htm>

(under: 28 August 16:00-17:30, Room #2) or:

<http://www2.gtz.de/Dokumente/oe44/ecosan/en-bayawancity-adopts-ecosan-2007.pdf>

· Niklas, J. (2006) "Short Term Expert Report III: Implementation of a soil filter treatment plant for water reuse in Bayawan, Oriental Negros", Consultancy Report by Oekotec GmbH, July 2006.

<http://www2.gtz.de/Dokumente/oe44/ecosan/enimplementation-of-a-soil-filter-treatment-plant-2006.pdf>

Thanks to The Sustainable Sanitation Alliance: www.susana.org.

Case study of SuSanA projects: *Constructed wetland for a peri-urban housing area, Bayawan City, Philippines*, SuSanA 2010

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