GWP-C Collaborates with Partners to Modify its Caribbean Rainwater Harvesting Model

In 2010 the Global Water Partnership-Caribbean (GWP-C) contracted the Caribbean Environmental Health Institute (CEHI) now subsumed under the Caribbean Public Health Agency (CARPHA) to construct a portable Rainwater Harvesting (RWH) Model to demonstrate RWH best practices throughout the Caribbean region.

Cross-section of GWP-C's original Rainwater Harvesting Model developed in 2010.

Since being developed in 2010, the GWP-C RWH model has been a travelling model and has been exhibited in various Caribbean countries such as Grenada, St. Lucia and Trinidad and Tobago.

In particular, the model has been exhibited in several rural communities in Trinidad within national Community Science Weeks hosted by GWP-C's partner, the National Institute of Higher Education, Research, Science and Technology (NIHERST).

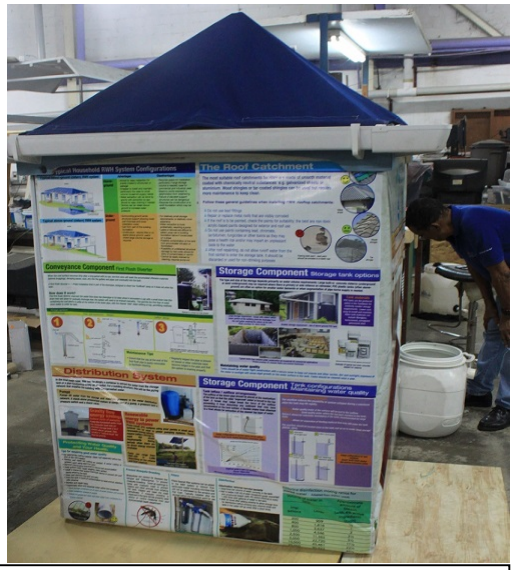
Given the significant wear and tear on the model from repeated use, GWP-C under its Water, Climate and Development Programme (WACDEP) decided to duplicate the model with slight modifications making it easier to set-up and transport to further share knowledge and build awareness on best practices in Rainwater Harvesting (RWH).

In exploring options for construction of a new model, GWP-C was made aware of the duplication and update of the design of its original RWH model by its partner, the Water Resources Authority (WRA) of Jamaica who has been using their model to promote RWH in Jamaica.

This provided an ideal opportunity for GWP-C to partner with the WRA by obtaining technical support to produce an improved RWH model based on the WRA's updated model. GWP-C under its WACDEP during the first week of December 2014 made the relevant arrangements for one of WRA's technicians, Mr. Steve Hudson to lead the construction of the new model with support from GWP-C's partner, NIHERST, who provided a work-station for the activity at its National Science Centre (NSC) in Trinidad and also workshop technicians from NSC to assist Mr. Hudson. Ms. Candi Hosein, former Programme Assistant of the GWP-C WACDEP was also on site for the week-long construction of the model to ensure that the process ran smoothly. Essential to the construction of the new model was that the NIHERST workshop technicians were trained in how to build the new model for future replication.

Scenes from the construction of the new GWP-C Rainwater Harvesting Model in December 2014.

The new model which was completed during the first week of December 2014 maintains the same methodology promoted by the original GWP-C RWH; equipped with a first-flush diverter, which promotes minimising contamination and enhancing the quality of captured and stored rainwater. The water that is first captured on the rooftop of a RWH system can be tainted with exposure to air pollution, animal droppings, contaminants from poorly maintained roofs among other debris.
The first-flush system which would form the bottom part of the downpipe is used to divert the initial water with pollutants from the roof ensuring that it does not enter the storage device being used.



Cross-sections of the new GWP-C Rainwater Harvesting Model developed under its WACDEP.

A significant improvement to the new model is the greater utilisation of plastic components which allows for greater portability of the model. The construction of the new GWP-C RWH model falls within the “Knowledge and Awareness” component of the GWP-C WACDEP and the model will be used as a knowledge tool for promoting rainwater harvesting best practices throughout the Caribbean.

GWP-C through its improved RWH model and related activities is committed to sharing knowledge with stakeholders at all levels on best practices in rainwater harvesting in the Caribbean.