

Living on the river bank

Case Study

February 2014

Silay, Philippines – In the city of Silay, small houses built of concrete and wood stand side-by-side down at the riverfront. When the rainy season comes, flash floods rising from the river can inundate the neighborhood five to six times a month.

For Carol Biacon Jr., the unpredictability of the river is a part of everyday life. He has lived next to the stream for more than three decades – first with his childhood family and now with his wife and two school-age children.

Climate change has made it increasingly difficult to predict when the river will overflow and force the families in the neighborhood to leave their homes. While in the past, floods used to strictly obey the circulation of the two seasons – rainy and dry – nowadays flooding is erratic throughout the year.

To protect his family from flooding, Biacon had his two-story house renovated in 2008. In order to fund the renovation, his wife worked as a domestic helper in Dubai.

“Before the renovation, even a small rain could cause flooding inside the house so we lifted up the floor with almost 1.5 meters,” says Biacon, who has sat in a wheelchair since suffering from polio as a child.

“However, we weren’t able to finalize the renovation as my wife’s work contract ended earlier than expected,” he adds pointing at the gap between the wall and the ceiling.

When the rain is heavy, the floods will come

“The community relies on a tide table and information received from the nearby mountain village of Patag. Rain in the mountains predicts flooding in the village,” says Zeaphard Gerhart Caelian, Officer in Charge for City Disaster Risk Reduction Management at the Bureau of Fire



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Protection in Silay.

Caelian is an instructor for the Community Action for Disaster Response (CADRE) training under the Program for Enhancement of Emergency Response (PEER). Implemented by Asian Disaster Preparedness Center with support from the U.S. Agency for International Development's Office of U.S. Foreign Disaster Assistance (USAID-OFDA), the program has trained around thirty community members in Silay to act as first responders to disasters.

"As a city of multiple lakes and rivers, Silay is unpredictable. The rivers have sharp curves where the water easily overflows. When mapping the city, we used historical data to identify the spots where the rivers always flood," Caelian mentions.

"Safety consciousness in Silay is improving, and people are taking initiatives in responding to disasters," he adds.

Evacuation as a routine

When a flood arrives, everyone in Carol Biacon Jr.'s family knows what to do. Biacon and the children move twenty meters up on the gravel road to wait for the flood water to recede. His wife stays on the second floor of the house as long as possible.

"I'm always worried when my wife is alone in the house and myself and the children are on the road," Biacon says.

Even up on the road, the water often rises up to Biacon's waistline, but he insists on leaving for the evacuation center only when the water level reaches two meters. He ties his wheelchair onto an electrical post with a rope to keep him safe from strong currents.

"Being handicapped, I always call the fire brigade for help in evacuating. The Silay City rescue group also comes to help me get up on the road when I call them," Biacon explains adding that the floodwater usually recedes after eight to twelve hours.

"If the water is not too high, my wife sometimes swims from the house and brings some food up on the road. When the flood water is at waist level in the house, we cook on a table that is floating on the water," he tells.

When it's about minutes

Biacon's family remembers the latest flood clearly; it took place just one week before our interview. Biacon stayed overnight at the Silay City rescue group's office and the other family members were taken to the civic center for shelter during the flood.



"We don't always have time to get our clothes and things, because we must evacuate," Biacon says.

In preparation for the floods, he built an impromptu floating device of empty bottles as a security measure, but now has a proper life jacket donated by the local fire brigade. He has also bought a mobile radiotelephone to listen to warnings given by the local disaster risk reduction office.

"I bought a radiotelephone to be able to be in contact with the fire brigade, and I also lend it to our neighbors when they need to call for rescue." All members in Biacon's family follow the disaster alerts intently.

"Three days prior to a storm, the Silay City rescue group gives a warning to the public and tells us to evacuate and prepare for a typhoon or a flash flood. Thanks to the rescue group, we feel secure," he says.



Silay to invest in safe development

Silay City is considered as one of the fastest growing cities in the Philippines. Hosting the province's only airport and located at a central spot in Southeast Asia, the city is becoming a popular tourism destination. Since 2013, Silay City has been part of UN Habitat's program promoting sustainable urban development.

"When we used to have three- or five-year plans, now with UN Habitat helping us, the scope is fifty years," says Silay City Mayor Jose Montelibano.

With regards to natural hazard risks, the city administration is especially conscious about flooding. It is currently working on relocating inhabitants, who live in the danger zone for floods.

"We provide them with new employment opportunities to make it easier for them to relocate," Montelibano says. "People are also becoming more conscious about storm surges and they know the consequences the surges might have. Before nobody really understood that. That's where preparedness comes in: When you're prepared, you can help right away and save a lot of lives," he concludes.



Silay City

Province: Negros Occidental

Population (2010 census): 120,999

Area: 214.8 km²

Climate: Rainy season from June through late December; dry season from December through mid-June

Geography: A broad plain terrain of about seven kilometers in width stretches approximately 25 kilometers inland from the coastline. The area further away from the coastline is characterized by rugged hills and mountain ranges. Three main rivers and several tributaries flow around the city.



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