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Difference Maker

Bob Keesee's rain catchers bring clean water to Haiti's poorest

Bob Keesee kept tinkering until he got his homemade rain-catching systems right. Now they collect precious water for Haiti's rural poor.

By Judith Ritter, Contributor | AUGUST 15, 2014



Judith Ritter | [View Caption](#)

SEGUIN, HAITI — For as long as she can remember, octogenarian Mrs. Felix Ville had spent three hours of every day walking to and from a muddy, often contaminated stream for water. So had all the women in Seguin, a remote village high in [Haiti](#)'s rugged mountains.

Then a Michigan insurance salesman and inveterate do-it-yourselfer showed up with some plastic pipe, bits of screen, a few tools, and an idea that both his neighbors back home and the Haitian villagers thought was just plain nuts.

“These folks needed clean water,” says Bob Keesee, “so I figured, why not just come up with a really simple system for each house to collect the rain? It rains 60 inches a year in Seguin. Why not just catch it?”

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Keesee first went to Haiti nearly 20 years ago with a group that planned to build a church that could also be used as a clinic and school. When he saw how far women had to walk to get water, and the desperate efforts people made to collect rainwater, he knew he had to do something.

“Sadly, the first [rain catchers] didn’t work so well,” he says with characteristic self-deprecating humor. “Took a while.” Mopping the sweat from his face, he finishes hammering a strip of galvanized tin onto the edge of a rusty, crumbling roof he is trying to stabilize so he can install the latest version of his rain-catching device. A knot of children and older men hang around the base of Mr. Keesee’s ladder.

The elders offer a stream of advice to him, to each other, and to the steamy air endlessly full of dust. Teenagers help hold tools or brackets, and the little ones play in a tangle of castoff

bits of plastic tubes and pipe. The Rube Goldberg-looking invention Keesee and his team of volunteers fasten on shack roofs today is basically a gutter made from a length of PVC pipe, tubing, brackets, strapping, and a plastic barrel. His device collects, filters, and contains rainwater – and it changes lives.

It took five years of tinkering for this real-life MacGyver to perfect his rain catcher. “I hung around Home Depot aisles searching through bins of stuff trying to find the cheapest solution for Seguin’s water problem,” he says.

He tried all sorts of things. He made fasteners from plastic zip ties and automotive hose clamps, flexible tubing from backyard swimming-pool hoses, and water filters from needlepoint screens or washing machine filters. He returned to Haiti again and again, installing and testing each version of the contraption.



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Whenever he found his rain catcher stolen, broken, or still less than perfect, he returned to his Michigan backyard, where he had built his own Haitian-style roof to test his product. He prayed for rain because each downpour meant he could go out back, study his makeshift roof, and tinker. “My neighbors looked over their fences and gaped at me soaking wet in the rain. I could tell they thought I was crazy,” Keesee says.

He finally came up with a device that was hurricane-proof, could deter thieves, was simple to repair, and maximized the amount of water captured from the rain.

“The first time I saw one work in Seguin, I actually cried,” he says quietly. “Neighbors were running over with every kind of vessel they had. Each drop to them is precious.”

Today, at a cost of \$250 (still about twice the annual income of a village resident) and some hours of perspiration from Keesee and his ragtag troop of volunteers and local boys (whom he pays to help build the rain catchers), each installation provides a family with 5,000 gallons of clean water a year.

How important is that?

Roro Eustache – the founder and director of Haitian Christian Outreach who also runs the Peredo Clinic in the Seguin area – says Keesee’s work is of the utmost importance. Mr. Eustache has known Keesee for almost two decades and speaks emotionally about Keesee and his rain-catcher project.

“The quality of water provided by his rain catchers has greatly improved the health of the people in Seguin,” Eustache says. “Cholera was our biggest worry, especially after the 2010 hurricane. But we have seen fewer and fewer people coming to our clinic with typhoid or other waterborne diseases.”

Water scarcity and the lack of any sanitation infrastructure have long plagued Haiti. According to Partners In Health, a Boston-based nongovernmental organization that works on health issues in the developing world, more than 70 percent of Haitians do not have access to potable water. Thanks to Keesee and his helpers, Haitians in the Seguin region have largely escaped this fate.

Both Keesee and his rain catchers have been a revelation in Seguin. To boost his efforts he learned Creole, the local language; the names of just about everyone around; and their stories. And he didn’t buy into the notion that Haiti is impossible to fix.

“In Haiti half of what you plan fails,” he says. “Accept it and just move on.”

The village lies 6,000 feet up on the rocky Seguin Plateau. The mountains are deforested, and soil slides down the slopes. There are no roads, no latrines, and no electricity. Getting to Seguin requires a 10-hour trip from Port-au-Prince on mostly unpaved switchback roads in a tap tap, one of the old open-back trucks or decorated buses that serve as public transportation in Haiti.

Then a visitor must finish the journey by hiking the rocky and narrow foot trails up the mountainside. Keesee has braved mudslides, rock slides, and swollen rivers. He has outsmarted groups of marauders.

Though modest, Keesee is not a quiet man. In fact, you can hear him loud and clear every four to six weeks when he shows up in the Port-au-Prince airport laden with bags, boxes, and backpacks. As he wades through the crowd, he’s greeted by luggage handlers, hucksters, and well-dressed Haitians alike. In the din of the airport, he shouts at them in Creole and introduces them to the gaggle of volunteers he’s brought from wherever he could find them – often churches, colleges, and corporations. They pay for the experience, and their money buys the materials Keesee needs.

He tries to buy locally. “This isn’t just aid if I can pump money into the economy,” he says. He loads his sometimes-nervous volunteers into a tap tap and off they go.

Kim Smith was once one of those nervous volunteers. A nurse at the University of Michigan, she met Bob years ago at church. He told her, she recalls smiling, that she “needed” to come. “The roads were horrendous,” she recalls. “We were stuck in the mud and spent the night in an open truck in the rain, and at the end of the trip he told me, ‘We’re not done here.’ ”

They certainly weren’t. Since that first trip, she’s made multiple visits each year and says that, though she has done no formal studies, the people look a little healthier each year. “Since the rain catchers, there’s less dehydration, fewer cases of typhoid fever, fewer infections,” she says.

The remarkable thing about Keesee, she adds, is his persistence and his commitment to the local people. “He works so hard.”

The volunteers have installed Keesee’s low-tech rain-harvesting invention on about 1,700 shacks to date, one house at a time.

“That’s 5,000 gallons of clean water per year per family,” Keesee says. He closes his eyes and calculates. “Every house I walk away from, we’ve given the family back 100 to 120 days a year” now spent lugging water.

Love only begins to describe the relationship that this former insurance executive has with Haiti’s disenfranchised people.

And that love is returned.

For her part, Mrs. Felix, standing by the plastic barrel of her precious rain catcher, has just one thing to say about Keesee – the most important thing to her and to the people of Seguin.

“Bob, he is different,” she says. “He comes back.”

• To learn more, visit www.raincatchers.org.

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Universal Giving helps people give to and volunteer for top-performing charitable organizations around the world. All the projects are vetted by Universal Giving; 100 percent of each donation goes directly to the listed cause.

Below are groups selected by Universal Giving that help people in need in Haiti:

- **International Action** provides clean water to communities in Haiti through efficient and affordable chlorine systems. Take action: [Campaign for clean water in schools in Haiti](#).
- **Operation USA** provides aid and relief for communities affected by disasters, disease, and endemic poverty. Take action: [In response to the Haiti earthquake, adopt a class](#).
- **The Hope Alliance** empowers impoverished people to create positive, sustainable change in their communities. Take action: [Volunteer for a health-, construction-, or education-related trip to Haiti](#).