



## SCIENCE & TECHNOLOGY

# A New Environmental Machine Is Cleaning Up a Panama River

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Latin America's first renewable fuel-powered, trash-trapping wheel is cleaning one of Panama's dirtiest rivers.

A local environmental group led the anti-pollution effort.

The wheel is powered by water and solar energy. It pulls waste out of the Juan Diaz River. Most of the waste comes from the capital area of Panama City where about 2 million people live. Thousands of kilograms of trash flow down the river into the ocean each year.

Robert Getman is the leader of the project.

"Cleaning **beaches** is good," he said, "but it is more effective and **cheaper** to trap **garbage** in rivers because when it reaches the ocean, the environmental and economic cost becomes too high."

The environmental group Marea Verde launched the wheel, which is named Wanda Diaz, in late September. By the middle of October, Wanda had gathered 28.6 cubic meters of plastic bottles from the water.

The Juan Diaz River is one of the most polluted in Panama. Waste systems in the area are poor, and land development is not well supervised. The river also passes through Panama City, one of Central America's largest cities.

Still, the waterway and its mangrove trees are home to lizards, turtles and birds.

Over five years, Marea Verde projects have slowed the spread of trash along Panama's rivers and coastline.

Before the coronavirus pandemic struck, the group launched its "Barrier or Trash" technology, a floating device. It captured more than 100 metric tons of waste in the Matias Hernandez River between 2019 and 2020.

The Baltimore Bay "Trashwheel" in the United States was the model for Marea Verde's Wanda machine. Wanda even has cameras with **artificial intelligence** that can recognize and **sort** different plastics.

"We want to raise awareness that we can prevent the death of this very important river," said Marea Verde leader Sandy Watemberg. She expressed her hope that the wheel will help.

But she also pointed to the need for those who use single-use plastics to rethink their behavior.

"The most important thing is to **achieve** a change in **habits**," she said.

I'm Caty Weaver.

*Elida Moreno reported this story for Reuters. Caty Weaver adapted it for VOA Learning English.*

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## Words in This Story

**beach** *-n.* an area next to the sea, lake or river that is covered with sand or small rocks

**cheap** *-v.* not costly

**garbage** *-n.* waste, things that are thrown away

**artificial intelligence** *-n.* an area of computer science that deals with giving machines the ability to seem like they have human intelligence

**sort** -v. to separate and put things in order, often grouping similar things together

**achieve** -v. to get or reach something by working hard

**habit** -n. something that a person does regularly.

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