

# South Africans Turn to Fog Harvesting for Water



It's fog season. Time for a drink. (Photo: Tiger\_Lily/Creative Commons).

Villagers in a drought-stricken region of South Africa have taken up a simple and novel method of supplementing their water supply as dry conditions plague their area: fog harvesting.

Designed to catch moisture from the air in a region that sees frequent fog but little rainfall, the system involves a series of sheets or "fog nets" that are stretched between pillars and hang over a catchment gutter collecting droplets, [Reuters AlertNet reports](#).

The mesh sheets pick up the tiny droplets, which then run in a gravity-fed system through a filter to a storage tank for use by the residents of Cabazane, a remote village of just 180 residents.

With up to five liters of water per day produced by every square meter of fog net, at 700 square meters the system can provide thousands of liters of water daily, depending on conditions.

Fog harvesting isn't a brand-new idea—researchers have been experimenting with its modern form since the 1960s, and the idea may go back [thousands of years](#) in arid regions.

In recent years, a number of areas have tried the water-collection method. In the islands of Cape Verde off the east coast of Africa, fog nets set up in 2005 can collect up to [4,000 liters of water a day](#) in good conditions, in an area where clean water is hard to come by.

Fog harvesting projects have been set up in Morocco, Chile, Peru, Nepal, Guatemala and other places.

The fog collection method is a functional solution for small or remote communities because it's inexpensive to set up: the Cape Verde project cost around \$12,000, and the Cabazane nets went up for \$40,000, as opposed to millions it could take for a regular municipal water system.

The systems also require no power to run. New filters and net repairs are the basic maintenance requirements. Drawbacks generally come from dust and debris that blow into the nets and spill into the water as it collects.

Suspended between poles, the fog-catchers are made of mesh and championed by groups like [FogQuest](#), which specialize in setting up the collection projects.

And for those really interested in the technology, the [5th International Conference on Fog, Fog Collection and Dew](#) is right around the corner. The summit, which has taken place every three years since 1998, will be held in Munster, Germany, July 25 to 30 this year, and will cover a range of fog-related topics.

Sessions on fog chemistry, fog physics, fog sensing and fog modeling are all on the agenda, at an event that bills itself as "a unique melting pot for scientists and applied users of fog and dew collection techniques from all continents." [Ben Murray](#).

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