

# The Journal of Values-Based Leadership

---

Volume 13  
Issue 2 Summer/Fall 2020

Article 6

---

July 2020

## Water in the Time of Coronavirus

Dylan Terrell

*Caminos de Agua*, [dylan@caminosdeagua.org](mailto:dylan@caminosdeagua.org)

Follow this and additional works at: <https://scholar.valpo.edu/jvbl>



Part of the [Business Commons](#)

---

### Recommended Citation

Terrell, Dylan (2020) "Water in the Time of Coronavirus," *The Journal of Values-Based Leadership*: Vol. 13 : Iss. 2 , Article 6.

Available at: <http://dx.doi.org/10.22543/0733.132.1325>

Available at: <https://scholar.valpo.edu/jvbl/vol13/iss2/6>

This Special Feature is brought to you for free and open access by the College of Business at ValpoScholar. It has been accepted for inclusion in *The Journal of Values-Based Leadership* by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at [scholar@valpo.edu](mailto:scholar@valpo.edu).



*A woman washes her hands with rainwater in the rural village of Agustín González, central Mexico. Courtesy Melissa Landman, Caminos de Agua, March 2020*

## **Mexico:** *Water in the Time of Coronavirus*

— Dylan Terrell

June 8, 2020

---

**“THERE ARE TIMES WE GO ONE TO TWO WEEKS WITHOUT WATER. I CAN GO DOWN TO THE RIVER WITH MY DAUGHTERS WHEN IT HAS WATER, BUT WHEN IT DOESN’T HAVE WATER, WE ARE ALL STRUGGLING. WE ARE ALWAYS WITHOUT WATER.”**

---

Juana Reyes Bocanegra tells us her story from the small rural village of La Luz, located on the outskirts of the central Mexican municipality of San Miguel de Allende – a place that was twice

named “The World’s Best City to Live in” by *Condé Nast*, while achieving similar applause from *Travel + Leisure*, *CNN Traveler*, and countless other outlets.

Just 15 minutes from the historic center of this picturesque and sought-after city, in a small village called Los Ricos, Rosario Ceobio ponders, *“Water is life. It’s a human right, but not all of us have [access to] it.”* She tells us this as she recounts her last week, staying up till midnight most nights, waiting for the water to arrive from the local well. While already severely compromised by this lack of water, the Coronavirus arrived here in central Mexico in the heart of the dry season, with health officials telling people like Rosario, who already have little water to begin with, that they need to be using more water to combat the spread. Rosario tells us that people in the neighboring village are, in fact, using far more water. Unfortunately, that means her village, which is higher up, receives even less water than usual. One well can often serve several villages – turning access into a game of tug of water: when one village gets water, it could mean they are “pulling it away” from another.

Along with social distancing, the principal recommendation from public health officials to prevent the spread of COVID-19 is to wash your hands frequently. Washing surfaces and remaining hydrated remain high on the list as well. These seemingly simple actions can become an infinitely harder-to-attain luxury for so many around the world living with water scarcity.

***“Water is life. It’s a human right, but not all of us have [access to] it.”***

***– Rosario Ceobio***

How do you tell a family to wash their hands 10 or 20 times a day when they only receive water once a week and for just a couple of hours?

Further down the road, in the rural community of San Antonio de Lourdes, Doña Esperanza recounts the reality for many in this region. When she was young, there was plenty of good water available – just three shallow wells were needed to serve the entire community. But over the years, as large-scale agricultural production started in the region – sucking up more and more water for export crops – the water table dropped. Those shallow wells dried up, and the community needed to install a well 10 times deeper. By 2010, that deep well went dry too – actually collapsed in on itself – and the village has been without water ever since. To survive, families buy plastic tanks and fill them at neighboring villages or irrigation wells.

I know how difficult the simple act of washing your hands can be in a community like San Antonio de Lourdes. I remember working on a project at the kindergarten there a number of years ago. I had plumber’s glue all over my hands, so I went to the bathroom to wash up, only to find that the school had been without running water for nearly three weeks. At the time, it did not occur to me what such a reality could mean in the face of a global pandemic.

Cities like San Miguel de Allende (San Miguel) have been able to piece together water from 20 urban wells, creating a type of house of cards that keeps the booming tourism industry flush and visiting foreigners and local residents alike none-the-wiser. Meanwhile, hundreds of outlying rural villages – many of which are governed by the same local administration as the

city of San Miguel – struggle every day to have enough water to meet their most basic needs. This fragile situation only creates further risk for all of us during the pandemic, when slowing the spread of the virus is closely tied to the amount of water we have available. To make matters worse, the little water that remains is often contaminated with toxic levels of arsenic and fluoride, but that is a story for another time.

San Miguel is located in the central state of Guanajuato, about four hours north of Mexico City. Guanajuato was recently slapped with the label of being in “extremely high water stress” by the World Resources Institute (WRI) – meaning we use more than 80% of our available water supply every year. The Laja River, which flows directly to the San Miguel de Allende dam, is only seasonal now – remaining dry 8-10 months out of the year. This makes it even more difficult for people like Juana, Rosario, and Doña Esperanza to have enough water to meet their basic needs, much less excess water to meet the increased hygiene requirements to help combat the spread of COVID-19. Official state estimates show that the underground aquifer, which accounts for almost all of the water use in the region, is dropping 2-3 meters (6-10 feet) per year. To give context, WRI states that more than just 8 centimeters (3 inches) of water table loss is considered “extremely high.” Well over 85% of the water extracted is being exported to US, Canadian, and European markets in the form of high-water-intensive vegetables. In fact, Guanajuato alone is one of the largest exporters of broccoli in the world.

The case of Guanajuato is not an anomaly. WRI has labeled Mexico as a whole as having “high water stress.” Mexico City, with a population of well over 20 million people, is classified as having “extremely high water stress,” second only to New Dehli in India, in terms of population, for urban areas to hold that title. Throughout Mexico, there are over 47 million people – or more than a third of the total population – who do not have daily or continuous access to water. And, somewhere between 9 and 11 million people in the country have no water service at all.

This is by no means simply a Mexico problem either. From 2017-2018, Cape Town, South Africa, with a population of over 4.3 million, was on the brink of “Day Zero” – or the day when almost no water is left. Just last year, Chennai, India, with a population of more than 7 million, actually declared “Day Zero” when their reservoirs dried up and their taps stopped running. WRI estimates that more than one quarter of the global population, or roughly 2.2 billion people, live in extremely high water stress conditions. The implications of this to lower the spread of COVID-19, or any other pandemic in the future, are horrifying. The United Nations made water access one of their top worries as the pandemic broke, saying that COVID-19 will not be stopped unless we find ways to provide enough safe water to these vulnerable populations.

In fact, the UN Human Rights Council said plainly way back at the end of March that:

***The global struggle against the pandemic has little chance to succeed if personal hygiene, the main measure to prevent contagion, is unavailable to the 2.2 billion persons who have no access to safe water services.***

As I write this, one major hotspot of COVID-19 cases is shifting towards Latin America. Mexico once seemed largely spared from the pandemic, but cases are growing fast now, expecting to reach their peak in the coming weeks. Hospitalizations throughout the state of Guanajuato grew 20% in just the last 24 hours alone.

In terms of the pandemic, the lack of water affects us all. Infections will rise in communities with water scarcity, which will further the spread to all of us. This is compounded by the fact that “sheltering in place” is a luxury far too many simply cannot afford. So, where do we go from here?

As the pandemic started ramping up, recommendations focused largely on basic hygiene measures, like washing your hands frequently; however, these recommendations did not include strategies for the billions of people with limited water resources. So, in my organization, *Caminos de Agua*, we pivoted our focus towards creating print materials and virtual educational workshops, disseminated through digital networks, to help create strategies for communities with water scarcity to help combat the spread of infection.

Organizations like my own, or *Isla Urbana* in Mexico City, or *Watershed Management Group* in Tucson, Arizona, or countless others around the globe, are focusing on working together with water-scarce communities to decentralize water supplies by harvesting rainwater. This kind of solution has proven extremely effective, even in arid environments with limited rainfall, and can give families control over their own water supply. For our region in central Mexico, it can mean that families worry less about dwindling water tables beneath their feet as their water supply literally falls on their head.

The scope of the problem, however, goes well beyond the means of small organizations like ours. We will continue to fall short. While the *National Water Commission* (CONAGUA) here in Mexico has promised to work to “guarantee water access for compliance with hygiene and hand washing measures” for all during the spread of the pandemic, they too will fall short.

Whatever the next global crisis is, we can be assured that those living with extreme water scarcity, will be impacted much more acutely. Finding creative ways to supply the global community with sufficient, safe water, will better prepare us all for the inevitable catastrophes to come.

---

## About the Author

**Dylan Terrell** is the founder and executive director of *Caminos de Agua* – an NGO which focuses on water quality and scarcity issues in central Mexico where it is based. He can be reached at [dylan@caminosdeagua.org](mailto:dylan@caminosdeagua.org).