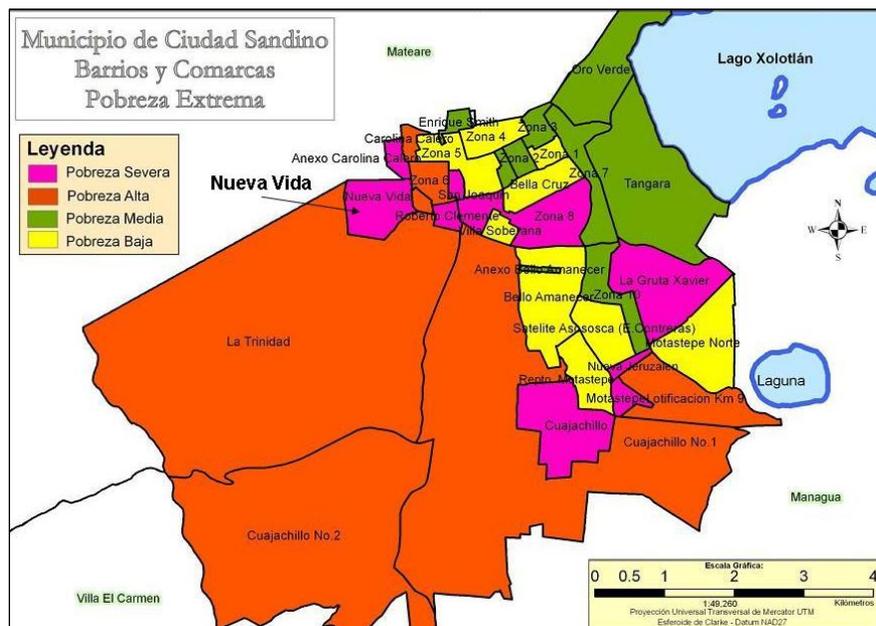


Case Study: Water and Waste Management in the village of Nueva Vida, Nicaragua

As a result of the devastation inflicted on Nicaragua by Hurricane Mitch in 1998, the village of Nueva Vida (New Life) was developed as a subdivisión of Santino City, Managua, Nicaragua. 1,500 new small houses were constructed between 1998 and



Location of Nueva Vida within Santino City, Managua, Nicaragua.

2000 in Nueva Vida to accommodate some of the over 40,000 families who lost their shanty homes to Hurricane Mitch.

Today, the population of Nueva Vida is approximately 10,000 people. Over the past 20 years, the

Nicaraguan

government, regional and international NGO's, experts from Central and North American universities, and members of religious communities have assisted the people of Nueva Vida in their struggle against poverty. But the struggle has not been won. Nueva Vida remains an extremely poor community.

One of the many critical challenges facing Nueva Vida is the development of a safe and reliable water and waste management system. Nueva Vida was built quickly after Hurricane Mitch, without careful urban planning and a dependable water and waste management infrastructure. The water and sewage service that currently exists is provided by the National Water and Sewage Company (ENACAL). And a municipal landfill (La Churequita) is meant to handle Nueva Vida's trash. But the capacity and methods of both are inadequate. For example, studies done by the Universidad Centroamericana, in collaboration with local community partner Redes de Solidaridad and Fairfield University in the U.S., show that:

- dangerous impurities are not fully filtered out of the water coming through household taps.
- water pressure is widely uneven from household to household.
- despite varying supplies of water from household to household, water payment is by fixed fee because most homes do not have a water meter.
- due to intermittent water flow, 65% of the people store their drinking, washing and cooking water in unsanitary plastic buckets.
- there is no system of wastewater treatment.
- garbage trucks come intermittently, so most people go to the municipal landfill to dispose of their trash.
- the municipal landfill has long exceeded its established limits in terms of capacity and space for expansion.



A Section of the Nueva Vida municipal landfill.

- the overcapacity and expansion of the landfill has brought sources of pollution and disease closer to the people's homes.
- due to landfill inadequacy, some people leave their trash in a channel which crosses through Nueva Vida.

 If you were on a team of experts assigned to develop a plan for a proper water and waste management system in Nueva Vida, what social and natural scientific information would you want to know in order to begin addressing the problem?

 What ethical issues do you see in the Nueva Vida situation? Who bears responsibility for the problems in Nueva Vida? Who is responsible for fixing them? Why?

 Is there a spiritual dimension to the situation in Nueva Vida? Explain.

 With sufficient scientific information, ethical analysis, and spiritual observation, what action do you imagine you would take first in concretely addressing Nueva Vida's water and waste problems? Second? Third?

Image sources:

<https://redesdesolidaridad.wordpress.com/page/79/?pages-list>

<https://redesdesolidaridad.files.wordpress.com/2016/08/nueva-vida-churequita-02.jpg>