

# Flood and weather monitoring in Colombia

## *Our Client*

The Unidad Nacional para la Gestión del Riesgo de Desastres (UNGRD), a company operating in the Water & Waste sector provides assistance to the Colombian Natural Disaster Risk Management. Colombia is a transcontinental country spanning South America and North America. It has a population of more than 50 million (2020 estimate) and thousands of varied species across the country. Its natural climate can span up to more than 40 degrees celsius and is prone to various natural disasters like flooding, storms, tornados, etc. This cost 45,120 families heavy losses and even deaths in the family in 2019. Around 20,000 homes, 491 roads, 43 bridges and 18 hospitals were damaged.



## *The Challenge*

Thousands of people live in the areas of Colombia like Monteria, Canalete, Cotoca Arriba, Cielo Azul, Puerto Libratar, Tierralta, and Chinu which are prone to regular natural disasters like floods, heavy rainfall and tornados. In order to safeguard the civilians from such natural disasters, it was important for the governmental body to have a weather monitoring system that can be self-reliant on solar power. They did not have a notifying mechanism that could help authorities be notified on a real-time basis whenever the water levels in the river cross the safety levels.

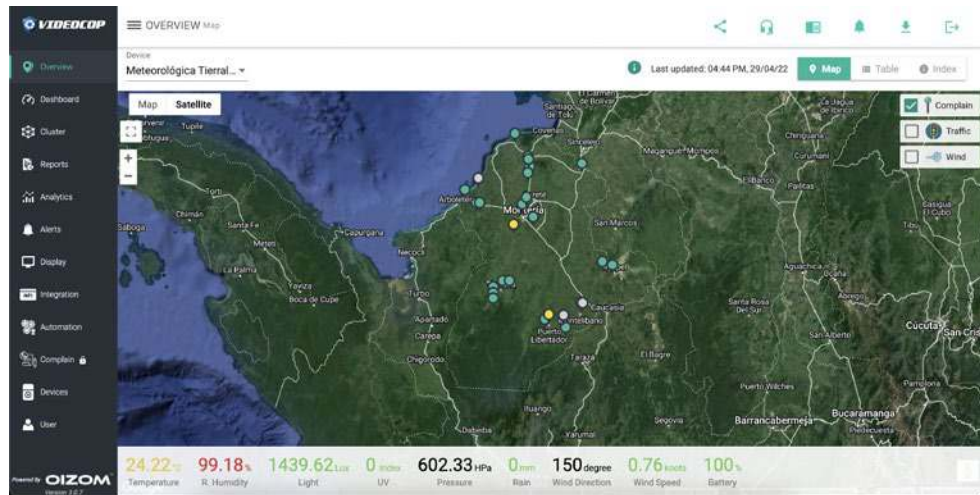
## Installation Details

50 units of Weathercom have been installed across 7 regions in Colombia.



## The Solution

Oizom with Cercam offered 50 units of Weathercom to the UNGRD for real-time accurate monitoring of temperature, humidity, UV rays, light intensity, wind direction, wind speed, flood monitoring, rainfall and other air quality parameters. Weathercom comes equipped with IP66 grade enclosure that can withstand harsh weather conditions of the country. It can also run independently on solar power. Weathercom is integrated with Oizom's Data Analytics & Visualization Software, Envizom, which can analyse the humidity, rainfall, flood and water levels in the river accurately. It also has an Alerts module that can alert the authorities via SMS or email as and when the weather or the water levels crosses a particular threshold.



“Oizom’s systems work well in harsh conditions even during heavy rainfall. We are pleased to see the smooth operation of the device. The software helps to view live data and also analyse historical data.” - David Ceron, MD-Cercam

## The Result

With Oizom’s robust, smart, and accurate automatic weather stations being installed across the country, the UNGRD is empowered to notify the civilians in case of any impending natural disasters. Envizom has helped the authorities to get detailed historical data on the various weather and air quality parameters. This has helped them forecast possible floods and help warn civilians about the same.

Oizom is an environmental IoT company offering data-driven environmental solutions for better decision making. With our sensor-based hardware, we monitor various environmental parameters like air quality, noise, odour, radiation, weather conditions, etc. Our data analytics platform derives many actionable insights for authorities, communities, and industries. Oizom strives to play an essential role in a sustainable future through smart environmental solutions and data science.