

#### Client



## Location

Itanagar, Arunachal Pradesh

# **Application**

Smart City Monitoring

## Problem

To accomplish its smart city mission, Itanagar envisioned a Sustainable Development Goal (SDG) strategy which has 5 pillars. One of its pillars is Technology and Innovation that focuses on implementing technological facilities to combat various issues. One key issue also includes the higher pollution rate in the city.

Itanagar is a hilly city, with an elevation of 320 m. This makes the city more prone to pollution concentration. The vehicles which are mostly designed to operate at one atmospheric pressure perform poorly at such high altitudes. This results in the emission of greater amounts hydrocarbons and carbon monoxide. The photochemical phenomenon creates smog, which is further elevated by the increased solar radiation of higher altitudes. Thus, a system was needed to monitor vehicular emissions.

#### **Oizom Solution**

To understand the effect of increasing urbanization and vehicular emission, Oizom installed a network of ambient air monitoring device Polludrone. The device tracks and monitors the vehicular emissions in the city and provides hyperlocal pollution data. This helps in determining its source and also pinning down the most polluted areas across the city.

Polludrone also monitors the emission around the Itanagar airport to monitor its impact on the environment. It measures all

the major pollutants present in the ambient air, to give a 360-degree understanding of the environment. Detecting pollution at such high altitudes can get difficult, due to cold weather and lower pressures. But Polludrone is capable of monitoring pollution even at extreme conditions, and provides accurate data.

The authorities can access the data from the device in real-time. Acquiring environmental data from all corners of the city will help them in implementing solutions for it.



# **Impact**

The data is analyzed in the Oizom data analysis platform which helps in understanding the pollution scenario and take effective measures before the situation gets worse. Through their efficient approach to tackle all the problems, Itanagar is proving to be an exemplary smart city in all aspects.