

## Key Objectives

- Disseminate Information on Air Quality in Mining areas of Odisha in terms of Air Quality Index (AQI)
- Use of data generated for making Management strategies, regulations, or policies to mitigate air pollution.

## Parameters Monitored by CAAQMS

### Weather parameters

- Temperature
- Humidity
- Solar Radiation
- Wind Speed
- Wind Direction
- Rain Gauge

### Air pollutants

- Particulate Matter (PM2.5)
- Particulate Matter (Pm10)
- Carbon Monoxide (CO)
- Ozone (O3)
- Sulphur Dioxide (So2)
- Nitrogen Oxides (Nox)
- Ammonia (Nh3)
- Volatile Organic Compound (VOC) (viz., Benzene, Toluene, Xylene, Ethyl Benzene, Oxaline etc.).



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Continuous Ambient Air Quality  
Monitoring Stations

# CAAQMS

A step towards curbing  
air pollution.....

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## AIR POLLUTION

Air pollution is the presence of contaminants or substances in the air that interfere with the health of living organisms. In the mining belts, pollution is mainly due to drilling, blasting, ore loading, crushing, and screening, ore transportation, overburden management etc. and transportation of mined out minerals to respective destinations.

## NEED FOR MONITORING

To keep a continuous watch on emissions and profiles of various pollutants in mining areas and to monitor real time and peak concentration levels of critical pollutants.

## SOLUTION

**Air Quality Monitoring System** to detect and measure the pollution in the surroundings.

Online monitoring is the advanced version of ambient air quality monitoring, commonly known as **Continuous Ambient Air Quality Monitoring**.

Its Features include:

- Use of high technology like IoT (Internet of Things) for automated data collection and its transfer and analytics at the central server.
- Real-time Data transfer to the server with adjustable intervals of 2 to 30 minutes.

Automatic Analysis of data with advance AI (Artificial Intelligence).

## PROJECT TAKEN UP BY STATE POLLUTION CONTROL BOARD (SPCB), ODISHA THROUGH OMBADC FUNDING

### Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Station (CAAQMS).

The project aims to install 9 CAAQMS in the districts of Keonjhar, Mayurbhanj and Sundargarh which are dominant with different industrial and mining activities and are the major sources of fugitive dust. With the continuous air quality monitoring systems and Air Quality Index (AQI) dissemination to the public through display boards, people are more aware and cautious about the health impact of air pollution. Local people and authority can initiate action to reduce air pollution with the monitoring data. Introduction of continuous air quality monitoring has eased the air quality monitoring through its various features like Scalable Real Time Monitoring, Quick Data Acquisitions, Multiple Measurement Features, Decision Making and Public Awareness.

The Project locations are:



CAAQMS @ Agriculture Office, Keonjhar