

## **Air quality and Water Quality Monitoring in Smart City Area"**

### **1. Name of the Project:**

"**ABD 9** Air quality and Water Quality Monitoring in Smart City Area"

### **2. Background:**

Surat Municipal Corporation might be the first Municipal Corporation which has been providing water supply & sewerage facility to whole city population by the end of year 2003.

To operate and maintain efficiently the system as a whole, Surat Municipal Corporation has setup Environmental Cell. It is a need of time to monitor the environmental aspects at all level such as water, air, noise etc. Particularly, to monitor the wastewater quality Surat Municipal Corporation has been doing a lot and has a well set up establishment.

The industrialization of city and Vehicular Discharges are the main cause of creation of disturbance of air quality. Now, it has become necessity to monitor the air quality within city. However, State Pollution Control Board monitor the air quality by conventional method, Surat Municipal Corporation has joined hands with The Sarvajanik Collage of Engineering and Technology to procure a Mobile Unit for the same as well.

The estimated cost of procurement of Mobile Pollution Measuring Van is about Rs. 120 lacs where in Surat Municipal Corporation is going to share the 50% Capital cost. The Sarvajanik Collage of Engineering and Technology as a CORE center selected by Science and Technology Department, Government of India is in process of purchasing the Mobile Pollution Measuring Van. This van is being operated and maintained by The Sarvajanik Collage of Engineering and Technology for which an MOU has been signed between Surat Municipal Corporation and The Sarvajanik Collage of Engineering and Technology.

Furthermore, Surat Municipal corporation has envisaged to set up two air quality station in area based development area under smart city mission.

### 3. Vision

#### Parameters in Air Quality Monitoring Stations ( 2nos under Smart City Mission)

PM2.5, PM10, SOX, NOX, CO, CO2

#### Parameters in Weather Monitoring Stations (12 nos under Smart City Mission)

Wind Speed & Direction, Humidity, Temperature, Rainfall, SOLar Radiation, Baromateric Pressure

#### Parameters in Water Monitoring Stations ( 1nos under Smart City Mission)

Phosphate, Nitrogen, COD, SS, Coliform Bacteria, Coliform, B.O.D. ,Amm. Nitrogen, etc.

### 4. Sector: Environmental Cell (Drainage Department)

### 5. Funding pattern:

- SCP Cost :Rs. 1.16 Cr
- DPR Cost : Net Rs. 9.53 cr.
- Tender Estimated Cost :Rs. 8.88 cr.
- Tender Sanctioned Cost : Rs.1.16 Cr.
- Convergence Scheme/PPP/SMC – : ABD-9 – Smart City

### 6. Brief Description (Technical Details):-

- To determine the current status and trends of ambient air quality
- To indicate the levels of air quality necessary with an adequate margin of safety to protect the public health, vegetation and property.
- To assist in establishing priorities for reduction and control of pollutant level;
- To examine if the prescribed ambient air quality standards are maintained or not
- To gain knowledge and an insight required for developing preventive and corrective measures
- To understand the natural cleansing process undergoing in the environment through various processes such as pollution dilution, dispersion, wind based movement, dry deposition, precipitation and chemical transformation of the pollutants released.

**Current status of the project: - Work Completed**

**Completion date of project:-14/03/2018**

**7. Speciality/ Benefit**

Continues monitoring of environment with accuracy and precision

**8. Site Plan (Google Map)**



**East (Varachhazone)**

**South East (Limbayat zone)**

**Site Photographs (High Resolution Image, before & after implementation)**

