

## MAIN SOURCES OF AIR POLLUTION IN MALAYSIA

- ✓ Industries
- ✓ Development Activities
- ✓ Motor Vehicles
- ✓ Power Generation
- ✓ Land clearing
- ✓ Open Burning and Forest Fires



## MALAYSIAN AMBIENT AIR QUALITY GUIDELINES

Pollutant	Averaging	Malaysian Guidelines (Concentration)	
	Time	ppm	( $\mu\text{g}/\text{m}^3$ )
Ozone	1 Hour	0.10	200
	8 Hour	0.06	120
Carbon Monoxide**	1 Hour	30.0	35
	8 Hour	9.0	10
Nitrogen Dioxide	1 Hour	0.17	320
	24 hour	0.04	10
Sulphur Dioxide	1 hour	0.13	350
	24 Hour	0.04	105
Particulate Matter ( $\text{PM}_{10}$ )	24 Hour		150
	12 Month		50
Total Suspended Particulate (TSP)	24 Hour		260
	12 Month		90
Lead	3 Month		1.5

**Note :**  
**\*\*( $\text{mg}/\text{m}^3$ )**

## **AIR POLLUTANT INDEX (API)**

- \* **Air Pollutant Index (API) is an indicator for the air quality status at any particular area**
  
- \* **It is calculated based on 5 major air pollutants which are:**
  - \* **Sulphur Dioxide, SO<sub>2</sub>**
  - \* **Nitrogen Dioxide, NO<sub>2</sub>**
  - \* **Carbon Monoxide, CO**
  - \* **Particulate Matter With Diameter < 10 micron, PM<sub>10</sub>**
  - \* **Ground Level Ozone, O<sub>3</sub>**
  
- \* **The air pollutants concentration are measured by 52 automatic air quality stations throughout Malaysia**

# National Air Quality Monitoring Network

## Automatic

52 automatic stations



Located at strategic places:

- Industrial;
- Urban
- Sub-Urban; and
- Rural area

## Manual

14 manual stations

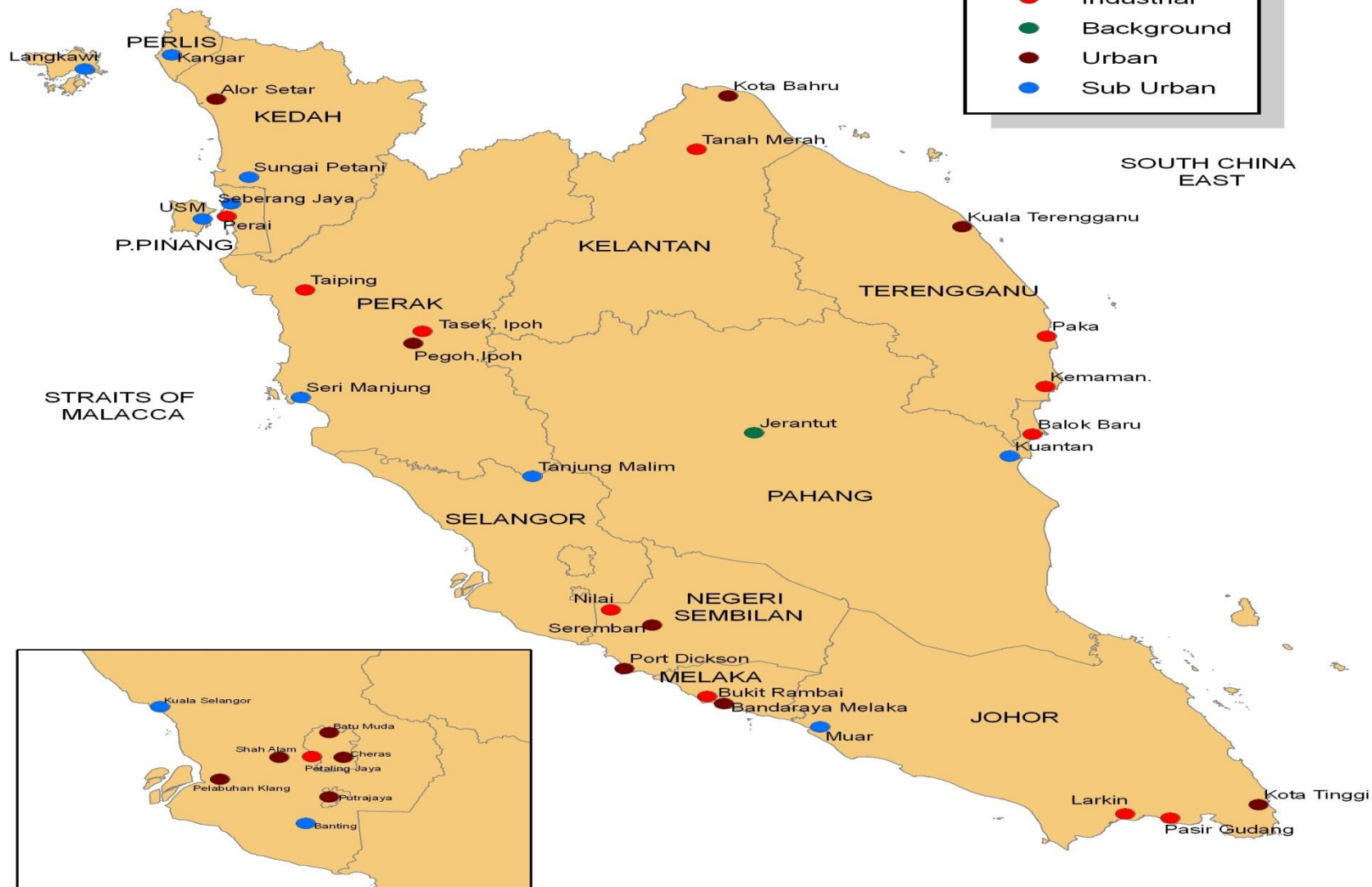


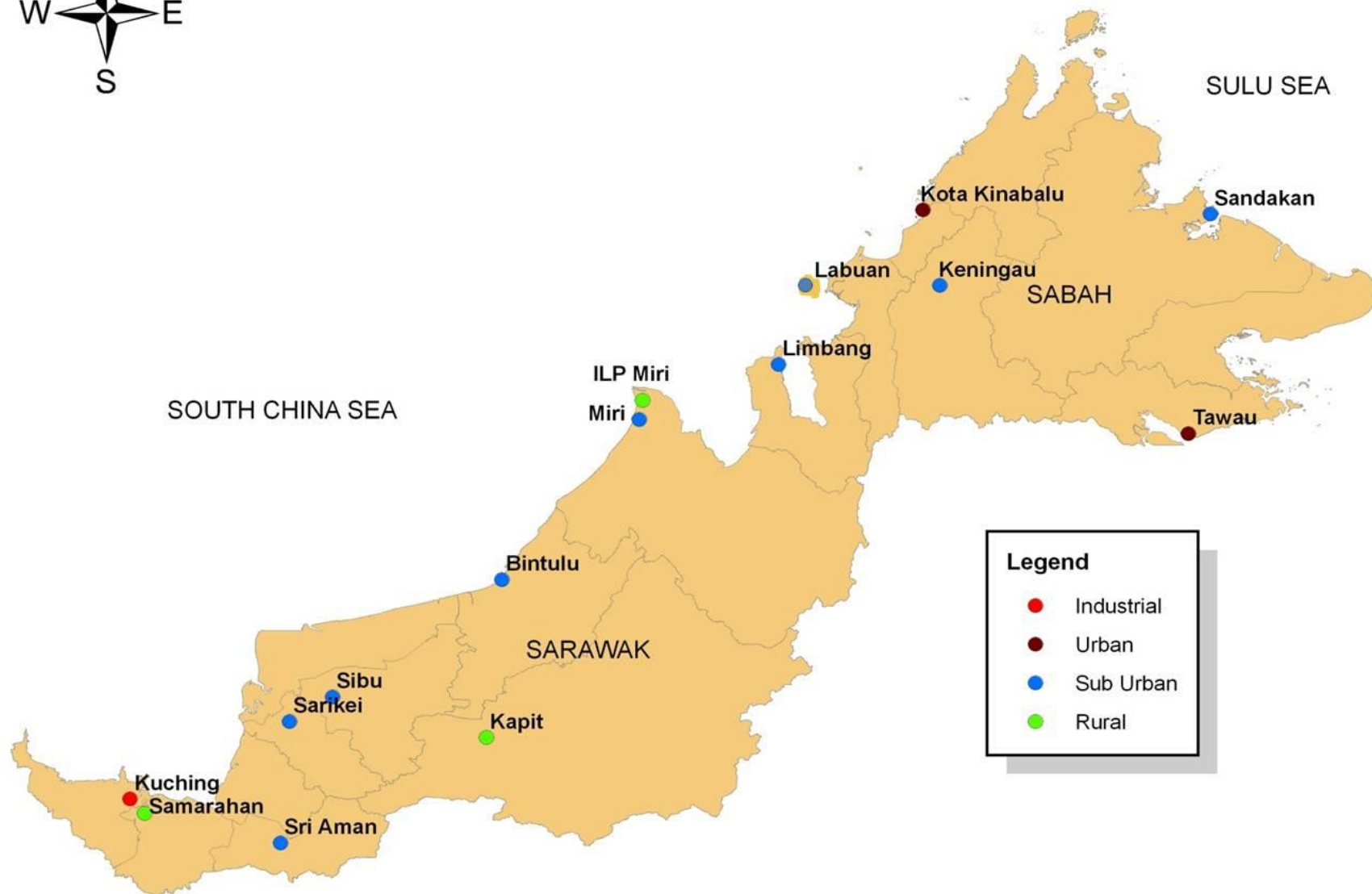




### Legend

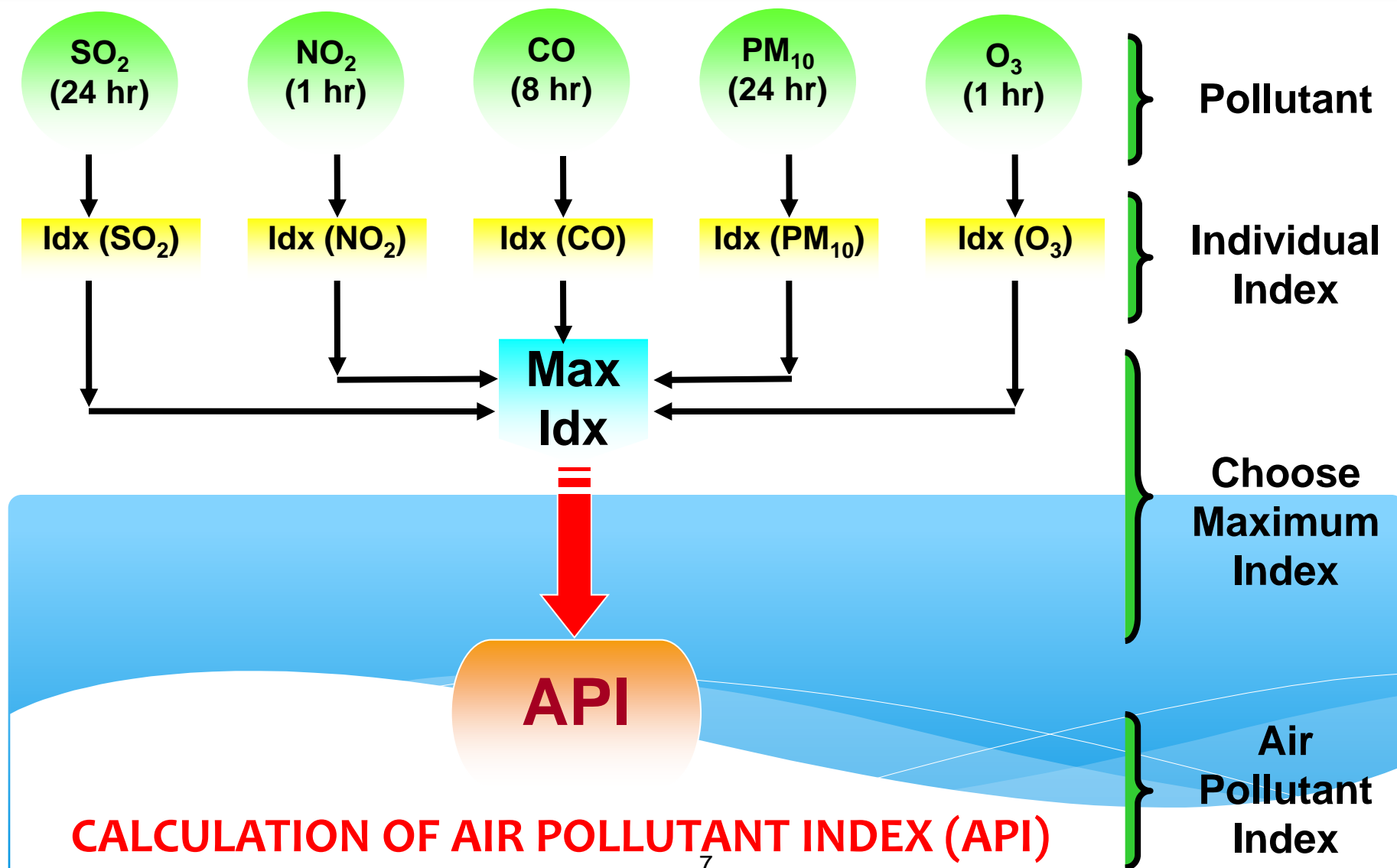
- Industrial
- Background
- Urban
- Sub Urban



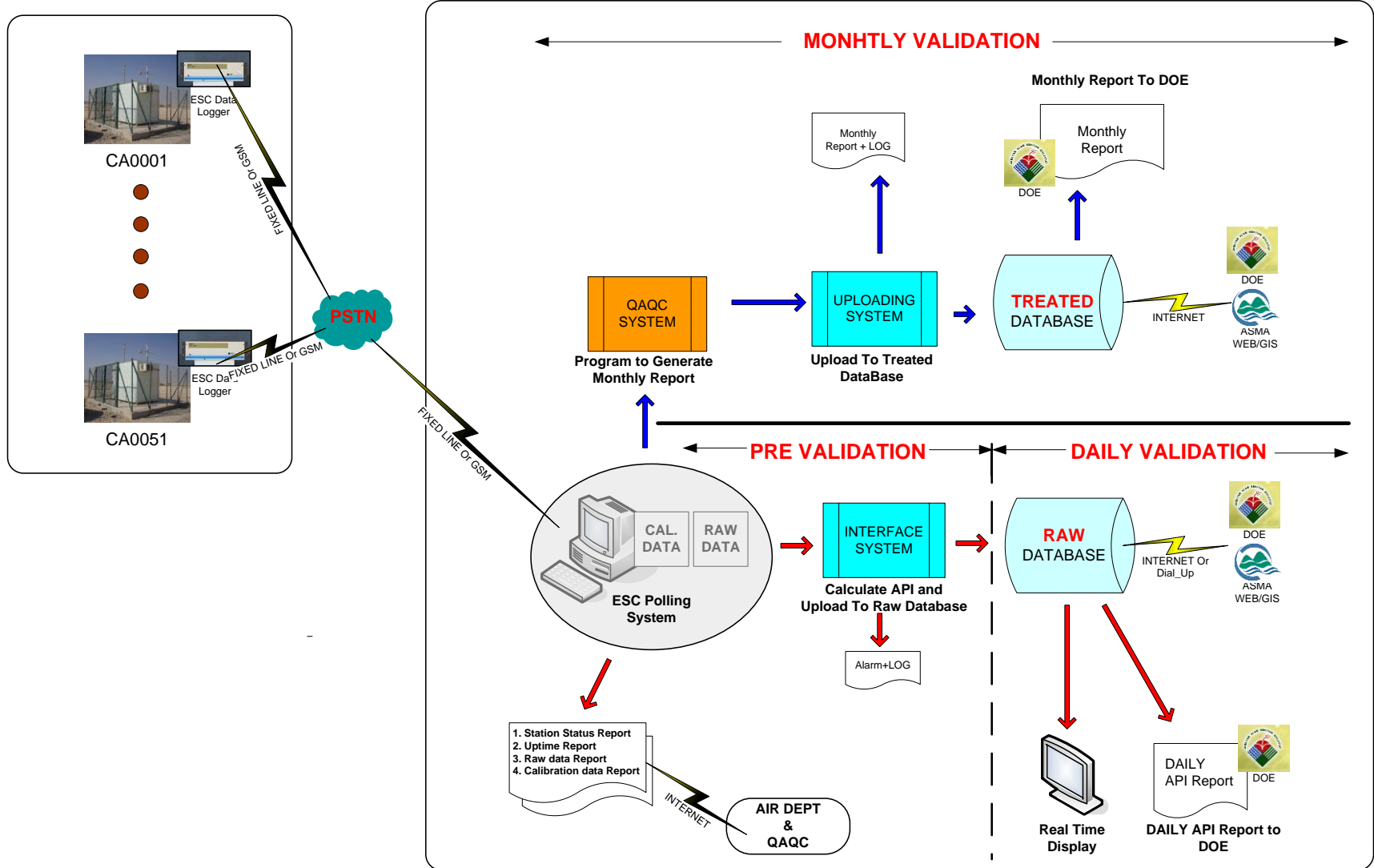


### Legend

- Industrial
- Urban
- Sub Urban
- Rural



# Data Validation Process Flowchart





## Air Pollutant Index : Health Effect

API	Status	Health Effect	Health Advice
0 – 50	Good	Low pollution without any bad effect on health	No restriction for outdoor activities to the public. Maintain healthy lifestyle
51 – 100	Moderate	Moderate pollution that does not pose any bad effect on health	No restriction for outdoor activities to the public. Maintain healthy lifestyle
101 – 200	Unhealthy	Worsen the health condition of high risk people who is the people with heart and lung complications	Limited outdoor activities for the high risk people. Public need to reduce the extreme outdoor activities



# DEPARTMENT OF ENVIRONMENT

## MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT



### Air Pollutant Index : Health Effect

API	Status	Health Effect	Health Advice
201 – 300	Very Unhealthy	Worsen the health condition and low tolerance of physical exercises to people with heart and lung complications. Affect public health.	Old and high risk people are advised to stay indoor and reduce physical activities. People with health complications are advised to see doctor
> 300	Hazardous	Hazardous to high risk people and public health	Old and high risk people are prohibited for outdoor activities. Public are advised to prevent from outdoor activities
> 500	Emergency	Hazardous to high risk people and public health	Public are advised to follow orders from National Security Council and always follow the announcement in mass media