OIH

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 213
TO BE ANSWERED ON 25.11.2024

Air Quality Monitoring Stations

213. SHRI SATPAL BRAHAMCHARI:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) Whether the Government has conducted any study to determine the minimum number of air quality monitoring stations required in the State of Haryana;
(b) If so, the details thereof, district-wise;
(c) The details of Manual and Real Time Continuous Air Quality Monitoring (CAAQM) Stations established and functional at present in the said State;
(d) The details of such stations opened during each of the last three years, year wise/district-wise;
(e) Whether the air quality monitoring system developed by the Government has been installed at the existing stations, if so, the details thereof; and
(f) Whether technologies like AI, GIS mapping and smart devices are being used to improve air quality monitoring and if so, the details thereof?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) & (b):

The ambient air quality monitoring stations are being established according to the population based Network Criteria developed by Central Pollution Control Board (CPCB). The criteria are attached as **Annexure I**.

A Sub-Group Constituted by Commission for Air Quality Management (CAQM) for Developing a Comprehensive Plan for Air Quality Monitoring Network in Delhi-NCR has calculated the minimum number of ambient air quality monitoring stations in NCR region of Haryana for the cities/ towns greater than one Lakh. Accordingly, the number of monitoring stations in the districts of NCR region of Haryana is as follow:

S. No.	District	Cities / Towns	Population (as per Census 2011)	Required number of stations as per criteria	
				CAAQMS	Manual
1	Jhajjar	Bahadurgarh	170767	1	3

2	Bhiwani	Bhiwani	29128	0	3
3	Rewari	Dharuhera/Rewari	143021	1	3
4	Faridabad	Faridabad	1414050	5	3
5	Jind	Jind	167592	1	3
6	Karnal	Karnal	302140	1	3
7	Palwal	Palwal	131926	1	3
8	Panipat	Panipat	295970	1	3
9	Rohtak	Rohtak	374292	1	3
10	Sonipat	Sonipat	289333	1	3
11	Gurugram	Gurugram	886519	3	3
			Total	**16**	**33**

(c) & (d):

In total, there are 05 Manual monitoring stations under National Ambient Air Quality Monitoring Programme (NAMP) and 30 Real time Continuous Ambient Air Quality Monitoring (CAAQMS) established in Haryana state, covering 24 cities/towns. The list of monitoring stations (established and operational) in the whole state of Haryana is given as **Annexure – II**. The number of stations established remain same over past three years i.e. 2022-23, 2023-24 and 2024-25 (till date).

(e) & (f):

Technology like Smart Devices are being used for qualitative assessment of air quality in specific project installing more number of devices in small area and monitoring impact of measures being taken. However, such systems are not suitable for national ambient air quality monitoring. Further, National Air Quality Data is depicted on maps showing Geo-coordinates of the Air Quality Monitoring Stations for better visualization of air quality on a map.

Indigenous Air Quality Monitoring System (AQ-AIMS) is a sensor based air quality monitoring system. At present, air quality data generation using any technology other than the specified in National Ambient Air Quality Standard (NAAQS), 2009 including Sensor is not used for regulatory purpose as its accuracy, linearity, reliability, and long-term performance are not yet fully established.

To encourage the indigenous products on air quality monitoring instruments, the Government has notified CSIR –National Physical Laboratory (NPL) as the national certification agency for air quality monitoring instruments and equipment.

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Annexure – I

Criteria for Designing Ambient Air Quality Monitoring Network

Population (Census 2011)	Minimum number of manual stations	Minimum number of CAAQM Stations	Total
1,00,000 - < 5,00,000	1-Background 2-Residential/ Commercial	1-Residential	4
5,00,000 - <10,00,000	1-Background 2-Residential/Commercial	1-Residential 1-Traffic dominant area 1- Commercial	6
10,00,000 - <50,00,000	1-Background 2-Residential/ Commercial	2-Residential 1-Traffic dominant area 1- Commercial 1-Industrial area	8
≥50,00,000	1-Background in upwind direction 1-Background in down wind direction 2-Residential/ Commercial	4-Residential 3-Traffic dominant area 3- Commercial 2-Industrial area	16

Annexure – II

Ambient Air Quality Network in Haryana State
(Manual and Real-time) as on date 19.11.2024

State	Sl. No.	City/town/village	Number of Stations			
			CAAQMS		NAMP	
			Established	Functional	Established	Functional
Haryana	1.	Ambala	1	1	0	0
Haryana	2.	Bahadurgarh	1	1	3	2
Haryana	3.	Ballabgarh	1	1	1	0
Haryana	4.	Bhiwani	1	1	0	0
Haryana	5.	Charkhi Dadri	1	1	3	0
Haryana	6.	Dharuhera	1	1	2	2
Haryana	7.	**Faridabad**	4	4	**2***	0
Haryana	8.	Fatehabad	1	1	0	0
Haryana	9.	Gurgaon	4	4	0	0
Haryana	10.	**Hissar**	1	1	**3***	3
Haryana	11.	Jind	1	1	3	3
Haryana	12.	Kaithal	1	1	0	0
Haryana	13.	Karnal	1	1	2	2
Haryana	14.	Kurukshetra	1	1	0	0
Haryana	15.	Mandikhera	1	1	1	1
Haryana	16.	Manesar	1	1	0	0
Haryana	17.	Narnaul	1	1	3	3
Haryana	18.	Palwal	1	1	2	1
Haryana	19.	Panchukula Urban Estate	1	1	0	0
Haryana	20.	Panipat	1	1	3	3
Haryana	21.	Rohtak	1	1	1	1
Haryana	22.	Sirsa	1	1	0	0
Haryana	23.	Sonipat	1	1	2	2
Haryana	24.	**Yamuna Nagar**	1	1	**2***	2
		Total	**30**	**30**	**33**	**25**

* Existing manual stations under National Ambient Air Quality Monitoring Programme (NAMP), Other manual stations are established by Haryana SPCB under their programme.