

Project presentation

Air pollution in India

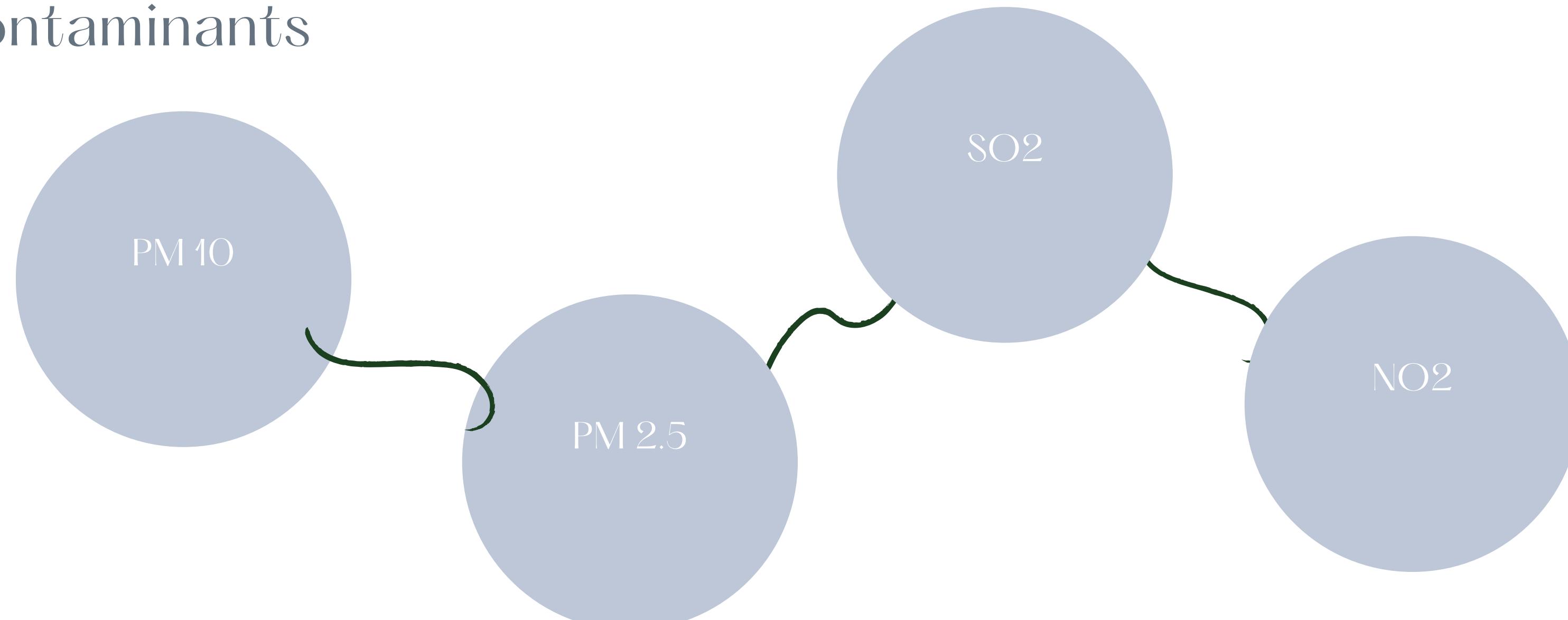




Introduction

Air pollution in India refers to the contamination of the air with harmful substances from various sources, including industry and vehicles. It poses serious health and environmental threats, leading to respiratory diseases and environmental damage. India is taking steps to mitigate air pollution, but it remains a critical issue due to rapid industrialization and urbanization.

atmospheric contaminants



PM 10,PM 2.5

- Particulate Matter (PM) is a type of air pollution.
- PM consists of tiny, often invisible particles or droplets
- These particles can include dust, dirt, soot, smoke, and liquid droplets.
- PM is categorized by size, with PM2.5 (smaller) and PM10 (larger) common categories
- PM can originate from various sources, including vehicle exhaust, industrial emissions, construction dust, and burning wood or leaves
- Inhaling PM can be harmful, especially smaller particles like PM2.5, which can deeply affect our health, entering the bloodstream and causing respiratory issues



Sulfur Dioxide (SO₂)

- SO₂ is a gas produced when materials containing sulfur are burned, such as coal and oil
- Common sources include power plants and industrial facilities
- Inhaling SO₂ can irritate the lungs and cause respiratory problems.
- SO₂ contributes to the formation of acid rain, which harms the environment.



Nitrogen Dioxide (NO₂)

- NO₂ is a reddish-brown gas
- It is primarily produced by burning fossil fuels in cars and industrial processes
- High levels of NO₂ can lead to respiratory problems and worsen asthma. It's a major component of smog.
- NO₂ can harm plants, animals, and contribute to acid rain.



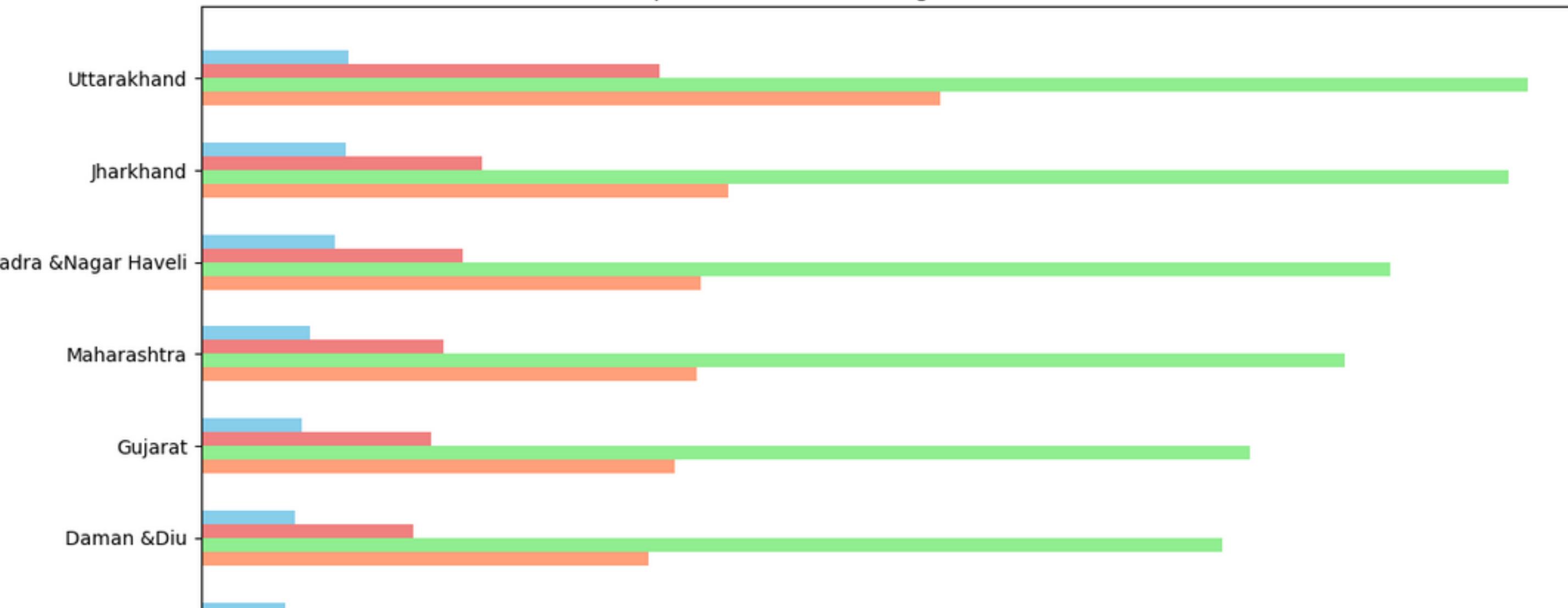
States with High Pollutant Levels

- Uttarakhand: Highest overall pollutant levels, with a focus on PM2.5.
- Jharkhand: Elevated NO2 and PM10 levels indicate air quality issues.
- Dadra & Nagar Haveli: Struggling with high PM2.5 levels.
- Maharashtra and Gujarat: Both states facing notable pollution challenges

Top 10 States with the Highest Pollutant Levels:

State	SO2	NO2	PM10	PM2.5
Uttarakhand	20.93	65.19	188.51	105.11
Jharkhand	20.51	39.9	185.82	75.05
Dadra & Nagar Haveli	19.0	37.24	168.98	71.04
Maharashtra	15.48	34.46	162.45	70.5
Gujarat	14.39	32.65	148.96	67.35
Daman & Diu	13.28	30.22	145.06	63.62
Tripura	12.0	29.52	143.04	58.5
Haryana	11.89	28.42	142.55	50.4
Madhya Pradesh	11.16	27.55	142.04	46.29
Uttar Pradesh	10.86	25.95	124.65	41.74

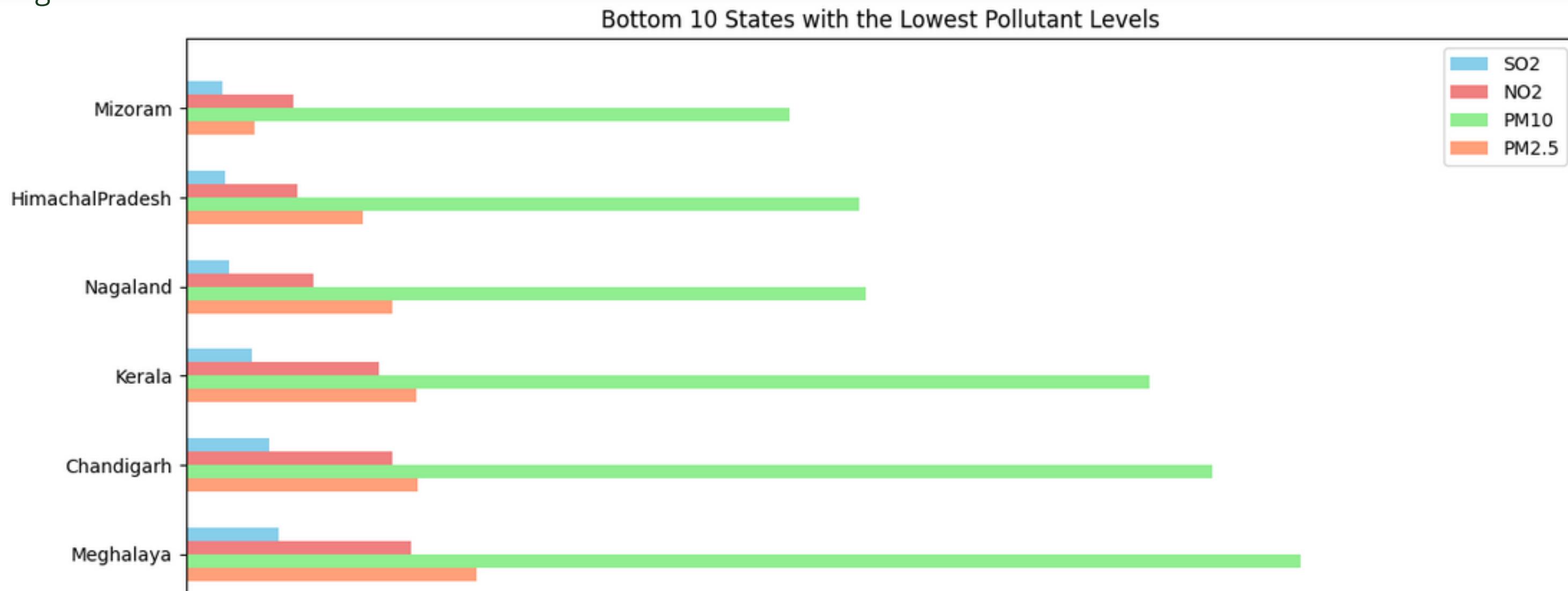
Top 10 States with the Highest Pollutant Levels



States with Low Pollutant Levels

- Mizoram: Lowest overall pollutants, particularly low PM2.5 levels.
- Himachal Pradesh: Low SO2 and NO2, cleaner air.
- Nagaland: Minimal pollutants, including low PM2.5 levels.
- Kerala: Low levels of all major pollutants, better air quality.
- Chandigarh: Low SO2, NO2, and PM2.5, indicating cleaner air.

Bottom 10 States with the Lowest Pollutant Levels:				
State	SO2	NO2	PM10	PM2.5
Mizoram	2.09	6.08	34.21	3.88
Himachal Pradesh	2.2	6.31	38.16	10.0
Nagaland	2.41	7.24	38.5	11.7
Kerala	3.7	10.96	54.59	13.06
Chandigarh	4.69	11.68	58.18	13.12
Meghalaya	5.22	12.74	63.17	16.5
Karnataka	5.44	13.03	66.28	18.13
Delhi	5.64	13.43	67.01	23.09
Orissa	5.83	14.23	68.69	24.61
Telangana	5.94	14.62	75.0	25.91





Conclusion:

Air pollution in India presents a dual challenge, with states experiencing both high and low pollutant levels. To safeguard public health and the environment, it's imperative to address this issue comprehensively. By implementing effective regulations and encouraging collective efforts, India can work towards cleaner air, improved health, and a more sustainable future.