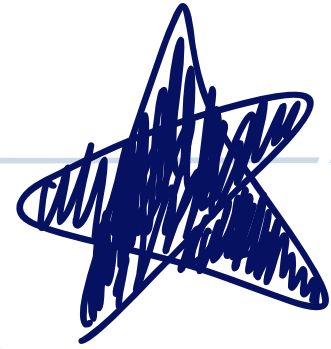


# URBAN AIR QUALITY WEB PAGE

Presented by Shravya







## OVERVIEW

- Abstract
- Problem Statement
- Introduction
- Objectives
- Methodology
- Literature Survey
- Gap Analysis
- Comparative Analysis
- Results
- Conclusion
- Reference






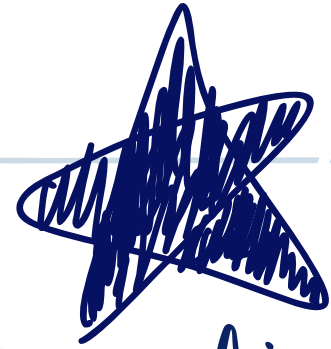


# ABSTRACT

Urban air pollution is a major environmental and health issue. This project analyzes pollutant data (PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, O<sub>3</sub>) using datasets from Indian cities. A responsive web platform was developed to display real-time AQI, track health symptoms, and suggest personalized precautions. Features like heatmaps, charts, and a community forum make it informative and interactive, aiming to reduce pollution impact and public awareness.







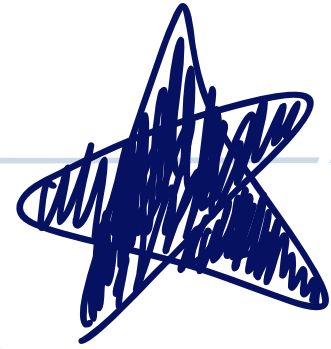
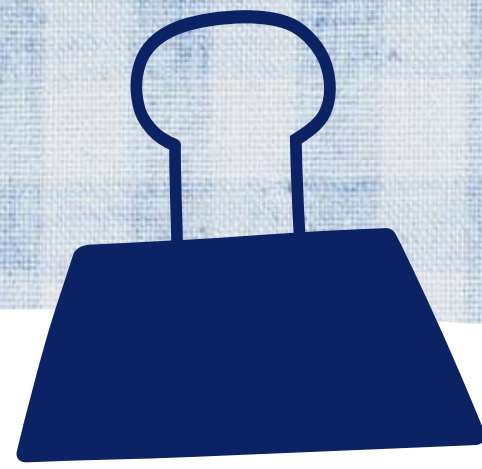
# PROBLEM STATEMENT

Air pollution in urban areas has reached critical levels due to industrial growth and urbanization. This results in severe health risks, including respiratory and cardiovascular diseases.

Existing monitoring systems lack accessibility, real-time personalization, and public engagement. Our project addresses these gaps through a web-based platform that analyzes air quality and its health effects.





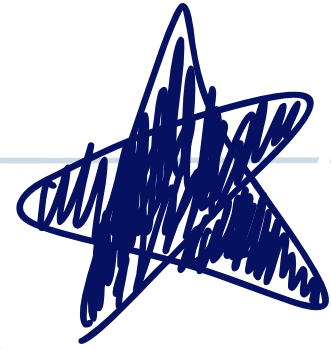


# INTRODUCTION

Millions are exposed daily to poor air quality in cities, leading to serious health consequences. Our project provides users with tools to monitor pollution levels, understand their health impact, and receive actionable guidance. The integration of data analytics and web technologies helps users make informed, health-conscious decisions.





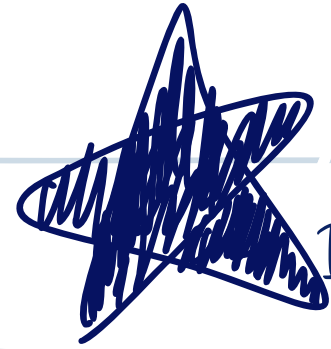
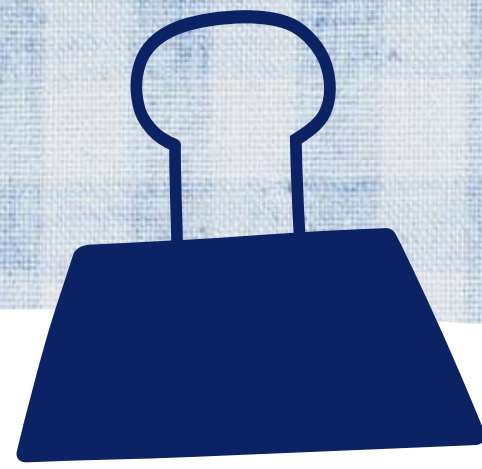


# OBJECTIVES

- Analyze key pollutants and their trends
- Develop a responsive website to display AQI and health data
- Map real-time pollution levels across regions
- Provide symptom-based health analysis
- Offer personalized precautions and community interaction







# METHODOLOGY

## Data Collection & Processing

- Collected air quality data from Kaggle's Urban Air Quality and Health Impact dataset
- Cleaned missing values, standardized units, and mapped data to Indian regions and timestamps

## Website Development

- Designed using HTML, CSS, JavaScript with responsive layouts
- Implemented interactive UI elements: dropdown for regions, symptom form, and pollution cards





# RESULTS

Page 2

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Air Quality Analysis

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## and Health Impact

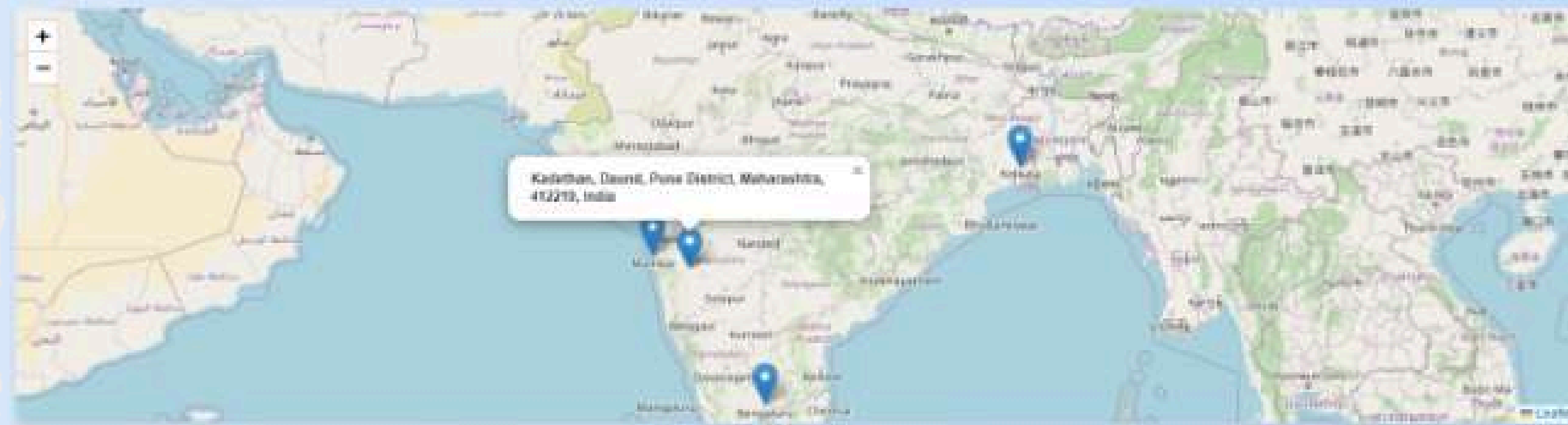
Home AQI Status Bookmarks Community

### Quick Location Search

Select a location...

Use My Location

Search



### Air Quality Details

Region: Kadethan, Daund, Pune District, Maharashtra, 412219, India

AQI: 77 (Moderate)

Last Updated: 5/5/2025, 6:30:00 AM

Dominant Pollutant: pm25

Possible Health Issues: Minor irritations

Precautions: Stay hydrated, limit outdoor activities

Recommended Actions: Limit prolonged outdoor exertion, especially for sensitive groups.

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# RESULTS

Page 2

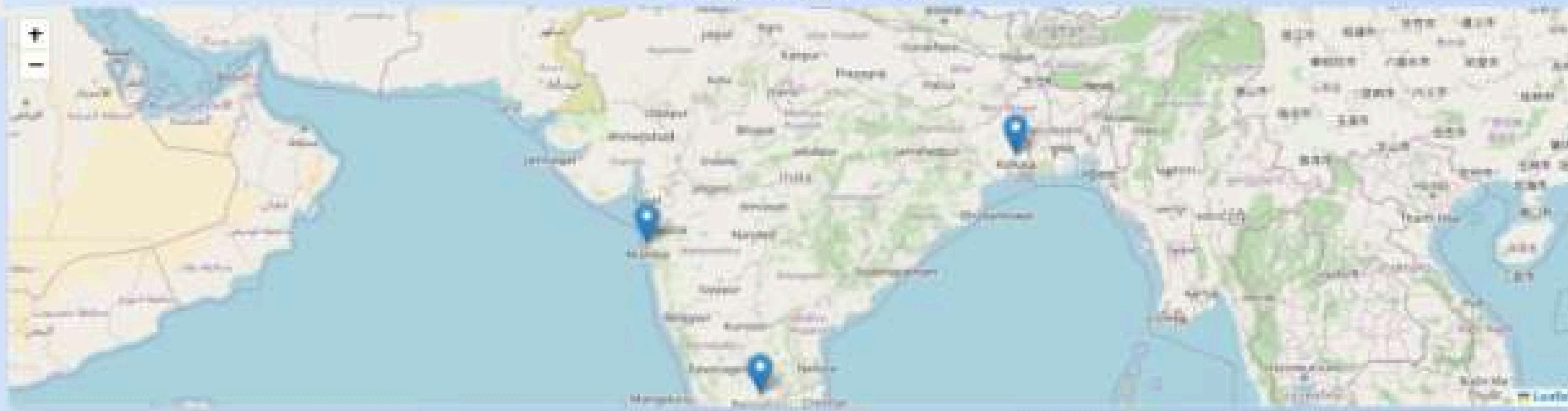
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## Pollution Heatmap



### Pollution Details

Region: Veer Surendra Sai Stadium, Dr. PMDSE Campus, Sambalpur, Odisha, 758001, India

AQI: 56 (Moderate)

Pollutants:

Carbon Monoxide: 12.3mg/m<sup>3</sup>

Dew Point: 20.5

Humidity: 61.23333333333333%

Nitrogen Dioxide: 4ug/m<sup>3</sup>

Ozone: 17ug/m<sup>3</sup>

Pressure: 1007hPa

PM10 Particles: 32ug/m<sup>3</sup>

PM2.5 Particles: 56ug/m<sup>3</sup>

Sulfur Dioxide: 4.8ug/m<sup>3</sup>

Temperature: 27°C

Wind Speed: 0.43m/s

Precautions: Stay hydrated, limit outdoor activities



# RESULTS



## Causes of Worsening Air Quality >

Industrial emissions, vehicular pollution, construction dust, and burning of fossil fuels contribute significantly to poor air quality.

## Protect Your Pets from Poor Air Quality >

Keep pets indoors, use air purifiers, provide fresh water, and avoid outdoor walks during high pollution hours.

## Ways to Improve Air Quality >

Plant trees, reduce vehicle usage, promote renewable energy, and use eco-friendly products.

## Precautions for Children and Elderly >

Limit outdoor exposure, use air purifiers, wear masks, and consult doctors if symptoms appear.





# RESULTS

Page 2

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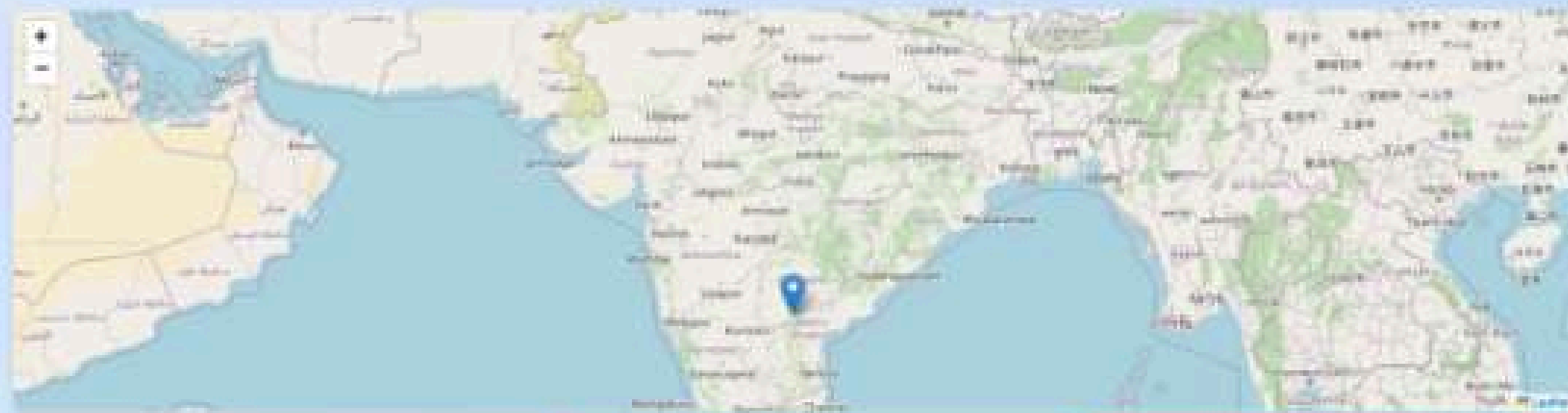
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Environment and Health Impact

Home | AQI Status

## Your Bookmarked Locations

Save and monitor air quality at locations important to you



Location name (e.g., Home, Office)

Add Current Location

Clear All Bookmarks

## Add a New Bookmark

Click on the map to select a location, then click "Add Current Location" to bookmark it

No location selected

**Pedra**

Pedra, Pedra mandal, Nagarkurnool, Telangana, India

AQI

**Precautions:**

Stay hydrated, limit outdoor activities

Select Date

Server Writer and Joint Bookmarker



# RESULTS

## and Health Impact

### Join Our Air Quality Community

Share your experiences, ask questions, and connect with others who are concerned about air quality.

Whether you're looking for advice on air purifiers, want to discuss pollution trends, or share local initiatives, this is the place!

[#ask](#)[#askforhelp](#)[#airqualitynews](#)[#askaboutme](#)

Community Stats  
Growing every day

3

Posts

### Create a New Post

Your Name

Post Title

Location (Optional)

Post Content

Category

Post to Community

Filter Posts

Questions

To

Journaler and Joint Bookrunner



# RESULTS

Page 2  
/poll.html

## Health Impact Assessment

### Symptom Checker

I'm coughing

Analyze

### Health Assessment Results

Based on your symptoms and current air quality:

- You may be experiencing respiratory issues related to air pollution.
- Recommendation: Stay indoors, use air purifiers, and consult a doctor if symptoms persist.

### Health Tips Based on Air Quality

#### For Good AQI (0-50)

- Enjoy outdoor activities.
- Open windows for fresh air.
- Perfect time for outdoor exercise.

#### For Moderate AQI (51-100)

- Consider reducing prolonged outdoor exertion.
- Keep windows closed during peak pollution hours.
- Stay hydrated.

#### For Unhealthy AQI (101+)

- Avoid outdoor activities.
- Use air purifiers indoors.
- Wear N95 masks if going outside.
- Consult doctor if experiencing symptoms.

## Stay Updated with Air Quality Alerts

Subscribe to our newsletter to receive air quality alerts and health tips for your region.

Your email address

Subscribe Now

### About Us

We provide real-time air quality monitoring and health recommendations to help you stay safe from air pollution.



### Quick Links

- About Air Quality Index
- Health Impact
- Policy Recommendations
- Real-time Data

### Contact Us

- ✉ [info@aqindex.in](mailto:info@aqindex.in)
- ☎ +91 123 456 7890
- 📍 123 Green Park, New Delhi, India



# RESULTS

Page 2

map.html

## Health Impact

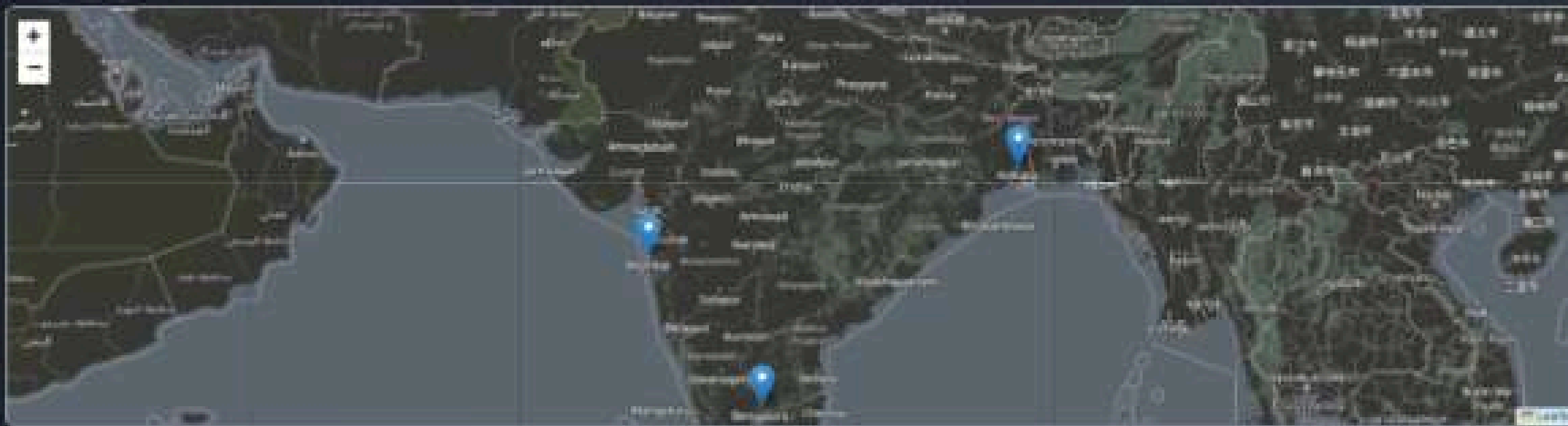
[Home](#) [AQI Status](#) [Bookmarks](#) [Comm](#)

### Quick Location Search

Select a location...

Use My Location

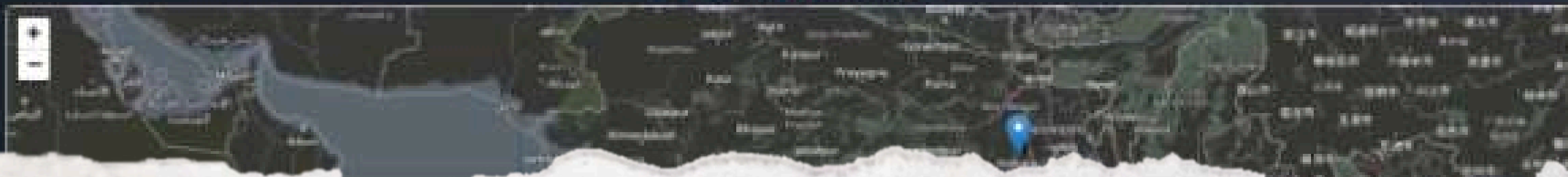
Search



### Air Quality Details

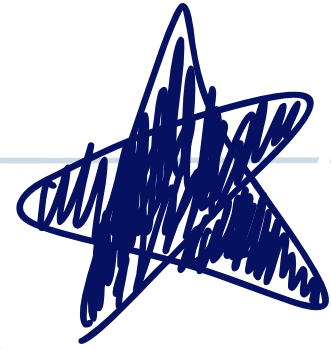
Click on the map or use the quick search to view air quality information

### Pollution Heatmap



Server Writer and Joint Bookrunner



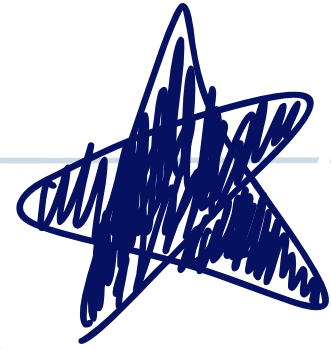


# CONCLUSION

This project transforms air quality data into meaningful insights, making pollution monitoring more accessible and actionable. By integrating AI, geospatial analysis, and user engagement, it not only raises awareness but also provides real-world solutions, empowering individuals to safeguard their health in an increasingly polluted environment.





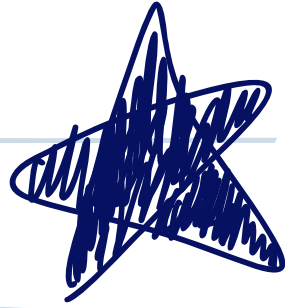


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- Urban and Transport Planning Pathways to Carbon-Neutral, Livable and Healthy Cities: A Review of the Current Evidence  
Author: Mark J. Nieuwenhuijsen  
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# THANK YOU

Presented by Shravya

