

# BREATHING BERGEN: TRACKING URBAN AIR QUALITY ON FOOT — HOW BAD IS IT?

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## What it is

Particulate matter (PM) is tiny dust and pollution particles in the air.

They are so small you can't see them, but you can still breathe them in.

- PM2.5: fine particles <2.5  $\mu\text{m}$ .
- PM10: particles <10  $\mu\text{m}$  (includes PM2.5).

## Where it comes from

- PM2.5  $\rightarrow$  exhaust from cars, wood burning, and factories.
- PM10  $\rightarrow$  road dust, construction, pollen, and soil.

## Why It Matters

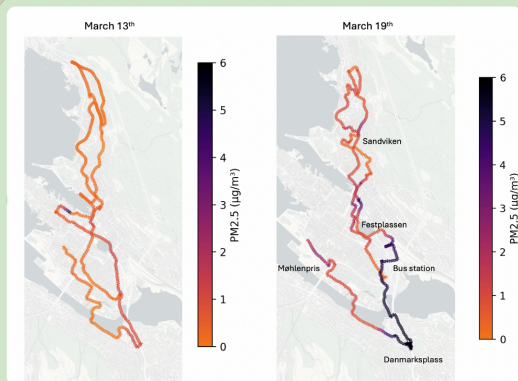
Exposure to PM is one of the leading environmental causes of premature death, as it can lead to heart disease, stroke, asthma, and lung damage.

## When is air pollution a problem?

Classes	Level	Health risk	PM <sub>10</sub> Day ( $\mu\text{g}/\text{m}^3$ )	PM <sub>2.5</sub> Day ( $\mu\text{g}/\text{m}^3$ )
Low	Low	Low	<30	<15
Moderate	Moderate	Moderate	30-50	15-25
High	Considerable	Considerable	50-150	25-75
Very high	Serious	Serious	>150	>75

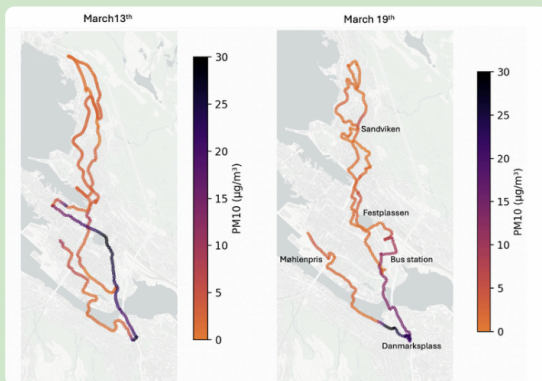
Reference: Miljødirektoratet. (u.d.). Health recommendations and pollution classes. Hentet fra Luftkvalitet: <https://luftkvalitet.miljodirektoratet.no/artikkel/en/articles/health-recommendations-and-pollution-classes/>

These maps show air pollution levels on March 13 and March 19. The colors represent how much PM was measured. Darker colors indicate higher levels.



## PM2.5

On both days, higher levels are seen along main traffic roads. On March 19, highest values appear around Danmarks plass and the Bus Station. Festplassen and Sandviken also show moderate pollution. Overall, PM2.5 levels are more spread out and slightly higher on March 19. This could be due to changes in traffic or weather.

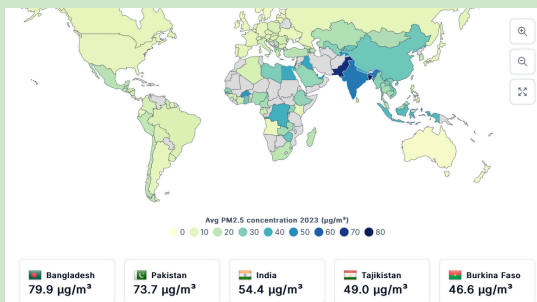


## PM10

On March 13, high levels of PM10 were seen around Danmarks plass and nearby roads. Some areas had values over 20  $\mu\text{g}/\text{m}^3$ . On March 19, PM10 levels were generally lower, with most areas showing less than 15  $\mu\text{g}/\text{m}^3$ . Still, places like the Bus Station and Danmarks plass had moderate levels.

## Conclusion

While some hotspots in Bergen, such as Danmarks plass and the bus station, show moderate levels of particulate matter, overall air quality remains far better than in many South Asian cities, where PM2.5 levels can reach 79.9  $\mu\text{g}/\text{m}^3$  — well above Miljødirektoratet's guideline of 15  $\mu\text{g}/\text{m}^3$  for daily exposure.



Reference: World Population Review. (2025). Most Polluted Countries 2025. Hentet fra Environment: <https://worldpopulationreview.com/country-rankings/most-polluted-countries>



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