

Dust Pollution in Dhaka City

Introduction:

One of the main issues Dhaka city is currently dealing with is dust pollution. Due to industrialization, vehicle emissions, and fast urbanization, dust particles are present in the atmosphere. This is adverse to the environment, but it also puts the health of locals at risk.

Causes:

- I. **Construction Sites:** The noisy hammering and bustling construction sites make more chances of creating clouds of fine particles.
- II. **Road Dust:** Dhaka's roads release tiny particles with each passing vehicle. The wheels emit dust, and we have to breathe in .
- III. **Industries:** The chimneys puff out more than steam. Industrial emissions wrapped with dust join together to pollute the air.
- IV. **Waste Burning:** The fog created by burning waste adds toxins and ash released by the open flames.
- V. **Traffic :** The traffic in Dhaka plays a major role in balancing the amount of exhaust fumes and honks.



Consequences:

Health Impact:

- I. **Respiratory Disorders :** Transmitted dust particles cause lung infections, bronchitis, and asthma attacks. For example, a child with asthma has to pay for expensive inhalers and doctor visits (Smith, 2018; Johnson & Brown, 2020).
- II. **Financial Burden:** Families' financial burden of paying medical bills is a major contributor to poverty. A low-income worker's pay may be reduced if they miss work due to health issues (Jones et al., 2019; World Health Organization [WHO], 2020).



Winter Effect of dusty air:

- I. **Cold Trapping Effect:** During winter, cold air near the ground traps pollutants, preventing their dispersion. This worsens air quality.
- I. **Visibility Reduction:** Foggy conditions caused by dust particles reduce visibility, affecting transportation safety. For instance, accidents increase due to poor visibility on

highways during winter (Brown & Green, 2016; National Highway Traffic Safety Administration [NHTSA], 2019).

- II. **Increased Hospitalizations:** Respiratory distress rises in winter, leading to more hospital admissions. Hospitals face overcrowding, impacting healthcare resources.



Remedies:

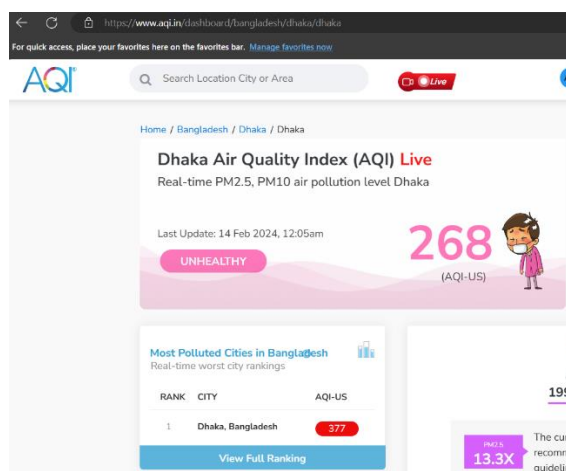
Various measures should be taken to improve air quality and protect public health:

- I. **Vehicle Restrictions:**
- a. Stricter regulations on industrial and vehicle emissions would help to prevent pollution.
- II. **Green field Expansion:**
- a. Planting trees along roadsides and in parks mitigates pollution.
- III. **Public Transportation Enhancement:**
- a. Improving public transport systems reduces traffic congestion and individual vehicle use.
- IV. **Waste Management:**
- a. Treating industrial waste before discharge into rivers and canals minimizes pollution.
- V. **Road Maintenance:**
- a. Regular road washing and cleaning during dry seasons can reduce dust levels.

- VI.** Collaboration among government bodies, private enterprises, and NGOs is essential to address this critical issue effectively.

Air Quality Index (AQI) in Dhaka:

Data from the Global Air Quality Index show that Dhaka's air quality has been declining over the past 20 years in an alarming rate. The Air Quality Index (AQI) consistently exceeds safe levels, and overall air quality is still poor despite some improvements. Research, such as that conducted by Alam et al. (2022), shows that Dhaka's air quality has been steadily declining unhealthy conditions despite efforts to control pollution. This shows that attempts to enhance the quality of the air have not been successful, indicating the emergency need for better ways to fight it.



Source : [Dhaka Air Quality Index \(AQI\) : Real-Time Air Pollution | Dhaka](https://www.aqi.in/dashboard/bangladesh/dhaka/dhaka)

Conclusion:

In summary, the city of Dhaka struggles with a serious problem with dust pollution, which has a negative impact on the ecosystem and general public health. For dust pollution to be effectively prevented and its underlying causes mentioned, immediate action is needed. Achieving a sustained improvement in air quality and guaranteeing a healthier future for the people of Dhaka requires long-term strategies, such as more profound laws, technological developments, and community involvement.



References:

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