

# A serious concern for Dhaka city

by Mehnaz Abbasi  
Badhan

**E**NVIRONMENTAL pollution has become a major concern because of the impact on public health and development of Bangladesh. Bangladesh occupies the 179th position, the second from the last, among the 180 countries, with a score of 29.56 in the Environmental Performance Index 2018 where in 2016, the position was the 173th, the seventh from the last. This index prepared by Yale Centre for Environmental Law and Policy and the Centre for International Earth Science Information Network in collaboration with the World Economic Forum based on safeguarding the environment and the human health system.

This result shows us that even after the various countrywide programmes and awareness-building sessions about the negative impact of environmental pollution; it did not bring us any positive news. Moreover, the situation worsened in the past two years.

The present environment is not at all in an equilibrium condition as all the parameters are far from the required level in Bangladesh. Air, water, soil and noise pollutions are severely threatening the ecology, ecosystem as well as human health. A research shows that the pollution of vital components of the environment has crossed far beyond the permissible level for the human body in recent years. The Air Quality Index of the different cities shows that Narayanganj stands in the first place with a score of 821 points following Gazipur, with 440, and Dhaka, with 416, which falls in the category of extremely unhealthy condition — ranging from 301–500 in the AQI.

Let us just examine the condition of Dhaka city alone. The capital city of the country is the hub of business and other earning activities where people from all parts of the country of all level migrate for their livelihood. It is estimated that the population of Dhaka city is around 19,580,000 and counting on with a density of more than 120,000 people per square kilometre. A huge number of people move even 10–15 kilometres every day to their workplace and returning home using different types of transport of two and three strokes engines. Statistics of the Bangladesh Road Transport Authority show that more than 13,43,719 motorised vehicles are running on the roads in Dhaka city alone resulting to serious air pollution in the city. Motorised transports



Dust springs from a road spread not repaired at Jurani in Dhaka in December 2017, causing severe health hazards.

— New Age/Ali Hossain Mintu

composed of two- and three-stroke engines use diesel/petrol which is the main sources of pollution in Dhaka city. Each two-stroke engine emits 40 per cent to 50 per cent higher particulate matter than four-stroke engines.

Major air pollutants in Dhaka city are suspended particulate matter, hydrocarbons, carbon monoxide, nitrogen oxides, lead, carbon dioxide, methane, etc emitted from the motorised vehicles. Researches confirmed that these pollutants have crossed far beyond the tolerance limit in Dhaka. As a consequence, occasional blackening of the city air and reduced visibility can be observed in some areas at times even with unaided eyes.

Particulate matter 2.5 and 10, which is responsible for causing many lung diseases — such as asthma, asphyxia, Pneumonia, obstructive lung disease, bronchitis, lower respiratory infection, lung cancer, etc — is found on an average seven to eight times higher in public areas where the permissible limit of PM 10 is 65 micrograms per cubic metre and for PM-2.5, it is 150 micrograms per cubic metre. Suspended particulate matter is higher in busy roads in Dhaka city and the situation is worsening because of serious traffic congestion for hours. Nitrogen

oxides are responsible for pneumonia, bronchitis, respiratory illness, found much higher in the crowded areas and commercial areas than residential areas. Additionally, carbon monoxide reduces delivery of oxygen into the human body, creates a severe headache and decreases visual perception and manual dexterity; hydrocarbons is a central nervous system depressant, both were traced in a concentration of higher than permissible limit in the air of Dhaka city.

In order to reduce the traffic congestion as well as pollution, the government has started giant rapid mass transit development project which will reduce the dependency of urban people on motor vehicles and traffic congestion-induced air pollution. In order to implement the project, many trees along the roadsides have been cut down and excavation of the roads increased the particulate matters in the air significantly. Large project induced temporary terrific traffic congestion and flooding in the rainy season result in increased water and soil pollution. But it cannot outrightly be expected that after implementing these projects of transportation, the situation will improve remarkably.

Research showed that around nine millions of people are dying

every year because of different types of pollution. According to WHO, in Bangladesh, the estimated number of premature death because of pollution are 37,000 per year. A fourth of the death in Bangladesh and a sixth in the world's total death result from environmental pollution, mostly caused by air pollution.

Initiative has been taken by the Department of Environment to reduce air pollution for which an air quality monitoring cell has been established. Proper implementation of Policy and projects; enforcement of existing environmental laws against pollution; banning high polluting industries and outdated motor cars; imposing provision to establish treatment plant in each industry; stopping deforestation and planting more trees can be fruitful solutions for beating the pollution.

Government and concerned agencies need to take initiatives to encourage researches on environments and to ensure implementation of researcher's offered real-time suggestions to beat pollution in the long run. A journey, the country is yet to make.

Mehnaz Abbasi Badhan is a research associate (environment and climate change division) at the Bangladesh Institute of Social Research Trust.