

## A Metropolis in Misery

Unplanned urbanisation, faulty traffic system, inadequate environmental regulations, poor municipal services, irresponsible civic behaviour have contributed to making Dhaka one of the most polluted cities in the world, writes Bakhtiar Rana



Irresponsible behaviour: Causing a road block.

ONCE Dhaka attracted tourists from across the continents, neither because it had any living or exotic wonders, nor because it was off the beaten track with boundless opportunities. Tucked away quietly at the country's heartland, this old city was then surrounded by rivers and canals on one side and lush green paddy fields on the other. There were innumerable trees all over the places. And the city was conveniently located to reach from any part of the country — thanks to its wonderful riverine route.

The Portuguese, the Arabs, the Mughals and, finally, the British, whether on religious missions or on colonial ventures or trading expeditions, came and settled here for whatever period they could. They probably liked the place and enjoyed its natural ambience.

But it is a different story today. Dhaka is no more that little, quiet city. Over the years, it has grown — or probably overgrown — to a potential level of being called a megacity.

As Dhaka kept expanding horizontally — and, of late, vertically — with its population bulging by the day, it started to shed its once attractive natural bounties like fresh air, sprawling woodlands and lively, fresh water rivers. All its greenery has given way to concrete structures of shops, markets, housing and office blocks and roads and avenues, and all other conceivable urban utilities.

The natural environment in and around Dhaka has changed rapidly over the years. The greatest effect has been the fast growth of population that fuelled an accompanied increase in the number of houses and vehicles, not to speak of the related utilities.

This metamorphosis of the city has been very fast in recent years, particularly since Bangladesh emerged as an independent state in 1971 and Dhaka became the capital as well as the country's administrative, economic, business and industrial hub. The biggest fallout of this sudden expansion of the city and galloping rise in its population resulted in a forceful overpowering of the city's natural resources, particularly the air.

The air over Dhaka today is one of the most polluted in the world. By midday, the sky over this city is virtually blanketed by a thick layer of black smoke directly affecting the health of its residents as well as its natural environment. Air pollution in the metropolis has taken a grave turn with the motorised vehicular traffic becoming thicker everyday.

It has been assessed that vehicle exhausts are the major cause of air pollution in the city. Several studies have con-

cluded that many vehicles operate upon partial burning of gasoline leading to emission of harmful gases like carbon oxides, sulphur oxides and other toxic components of which lead is the most dangerous.

The worst polluters are the three-wheeler scooters or baby taxis, as they are commonly called. These motorised vehicles run with two-stroke engines are notorious for emitting black smoke from burnt fuel.

Not only that, the operators of these auto-rickshaws, as they are sometimes called, have an erroneous belief that mixing lubricant oil with the gasoline would give them a better mileage. This makes the situation worse as the smoke generated from such melange becomes highly choking and deadly. There are more than 35,000 auto-rickshaws and tempos (extended form of such three-wheelers to carry more passengers).

Added to this has been the growing number of faulty vehicles plying the city streets. It is estimated that more than fifty per cent of the 2,000 buses and minibuses plying in the city are technically flawed and thus contributes a lot to emission of hazardous black smoke and deadly gases into the air.

Due to negligence of authorities, or often due to the corruption of some traffic regulatory

officials, these faulty vehicles go around scot-free. Though trucks are not in great number, quite a significant number of them are also at fault, lacking proper mechanical conditions.

All these contribute towards degradation of the air quality in Dhaka city.

But still, the number of vehicles in Dhaka is comparatively much less in relation to the number of people living here. But the primary source of air pollution in the city is the emission of black smoke from the motorised vehicles as well as the undesirable gases and suspended particles coming out from these.

While bad or lack of maintenance of these vehicles is a major factor, another significant reason is the use of highly leaded gasoline. It has been found that the lead content in the air over Dhaka is among the highest in the world. Several academic investigations assumed that the lead content in Dhaka's air is much higher than that in Bombay or Mexico City — two places often dubbed 'cities of pollution'.

The situation becomes grave during dry season. Lead is a dangerous chemical metal, which poses a direct threat to health, particularly those of children and sick people. Fine particles of lead can cause blood

clotting and inadequate road network thus add to the dismal scenario.

The problem of vehicular

emissions apart, there are a number of other factors significantly contributing to the wors-

ening of air quality here. These include industrial emissions, brick-burning, bad civic practices and poor municipal services.

Children are more susceptible to health damage caused by the presence of lead in air. Studies have found that lead content in the blood of children exposed to open air in and around the city is 20 micrograms per decilitre, which is supposedly a high mark to destroy several cells in their brain. As a result those children do not have a healthy growth and they tend to lose their memory at an early age.

However, a particular reason for the bad quality of air in Dhaka caused by vehicular emissions is the city's notorious traffic jams. In fact, traffic congestion is one of the main causes for accumulation of bad quality air.

While the city has grown in terms of population and size, its road facilities have not been developed at the same pace. So, when the roads and streets are not capable of ensuring a free flow of vehicles, there are traffic jams with the resultant effects of concentrated vehicular emissions. The city's poor and inefficient traffic management and inadequate road network thus add to the dismal scenario.

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