

## Worst city in the world

Awareness about the very real hazards of uncleanliness and air pollution must be addressed as a development priority. This is possible if government and opposition both join hands. If that miracle could be realized all who are potential air polluters could be made to abide by the air quality regulations.

M. A. MATIN

**H**ARARE, capital of Zimbabwe is rated as the worst city of the world by the Economist Intelligence Unit (EIU) of the renowned weekly magazine "The Economist" published from London. The rating also revealed the finest city of the world. Vancouver of Canada is the best city of the world according to their evaluation. Dhaka, capital of Bangladesh has been rated as the second worst city of the world. The rating was published few weeks back. We actually do not know the exact variables they used for this study. But whatever variable they used, anybody with commonsense, can easily guess the possible ones.

The variables, if we want to mention, we can serialize them as: population, cleanliness, traffic congestion, load shedding, scarcity of water, gas and electricity, lack of open space (playground and parks), destruction of water bodies and

river by encroachment by land grabbers, crimes on the roads and in the markets, lack of safety measures in the industries, dilapidated transports, lack of efficient and comfortable public transport system, gross violation of traffic rules both by the members of the public and drivers and so on and so forth.

Another related bad news for us is that Association of French and Bangladeshi scholars and trainees (FBAST) and the French Embassy in Dhaka revealed in a seminar on 21 November 2009 that Dhaka is currently the world's third most polluted city in terms of total suspended particulates (TSP) in the air. Old motor vehicles, brick kilns, construction activities and industrial exhaust have been identified as the main offenders, generating poisonous pollutants like lead and other heavy metals, carbon monoxide, hydro carbons, oxide of nitrogen and sulfur, dust, soot, ozone and other photo-chemical oxidants. However, dioxin and furans, two of the most toxic emissions

identified internationally as having long term health consequences, have reportedly not yet been monitored in Bangladesh.

Based on these studies and research done in and outside the country and reports and articles published in different vernacular dailies, different authorities came up to take sporadic initiatives to address these problems. For example, we can mention the initiatives taken by the Dhaka Metropolitan Police in solving the traffic congestion in Dhaka without any results. Dhaka City Corporation takes steps for cleaning the city and finishes without any good result. But little was achieved earlier with the phasing out of the two-stroke 'baby taxis', the banning of old, unfit motor vehicles, efforts at improving the quality for fuel, instructions to regulate and maintain motor engines for efficient combustion, and the like. All have totally been defeated by the current chaos in the road transport sector, a vivid picture of which has been depicted in the Daily Star of 24 March 2010.

After publication of the news of rating by EIU and by other agencies, we hoped that the government will take appropriate measures (both short and long term) to improve the existing unbearable condition of Dhaka city. The present situation is not only increasing sufferings of the inhabitants but also the image of the city as well as the image of the country have also been shattered to the foreigners particularly to the foreign investors. Even our Bangladeshi expatriates do not like to come to Dhaka very often to see their kith and keens because of the unhealthy environment and excessive traffic congestion in the capital city.

Many opinions in the forms of editorials, articles, and letters to the editor have been published on the issue. One of the latest articles "Dhaka must not be a loser" by Dr Saadat Husain, a veteran bureaucrat, writer, researcher, trainer and currently chairman of the Public Service Commission, who thinks a lot regarding different issues of public interest despite his heavy schedule, was published in the Daily Star of 23 March 2010. My present small endeavor is in response to his thoughtful article.

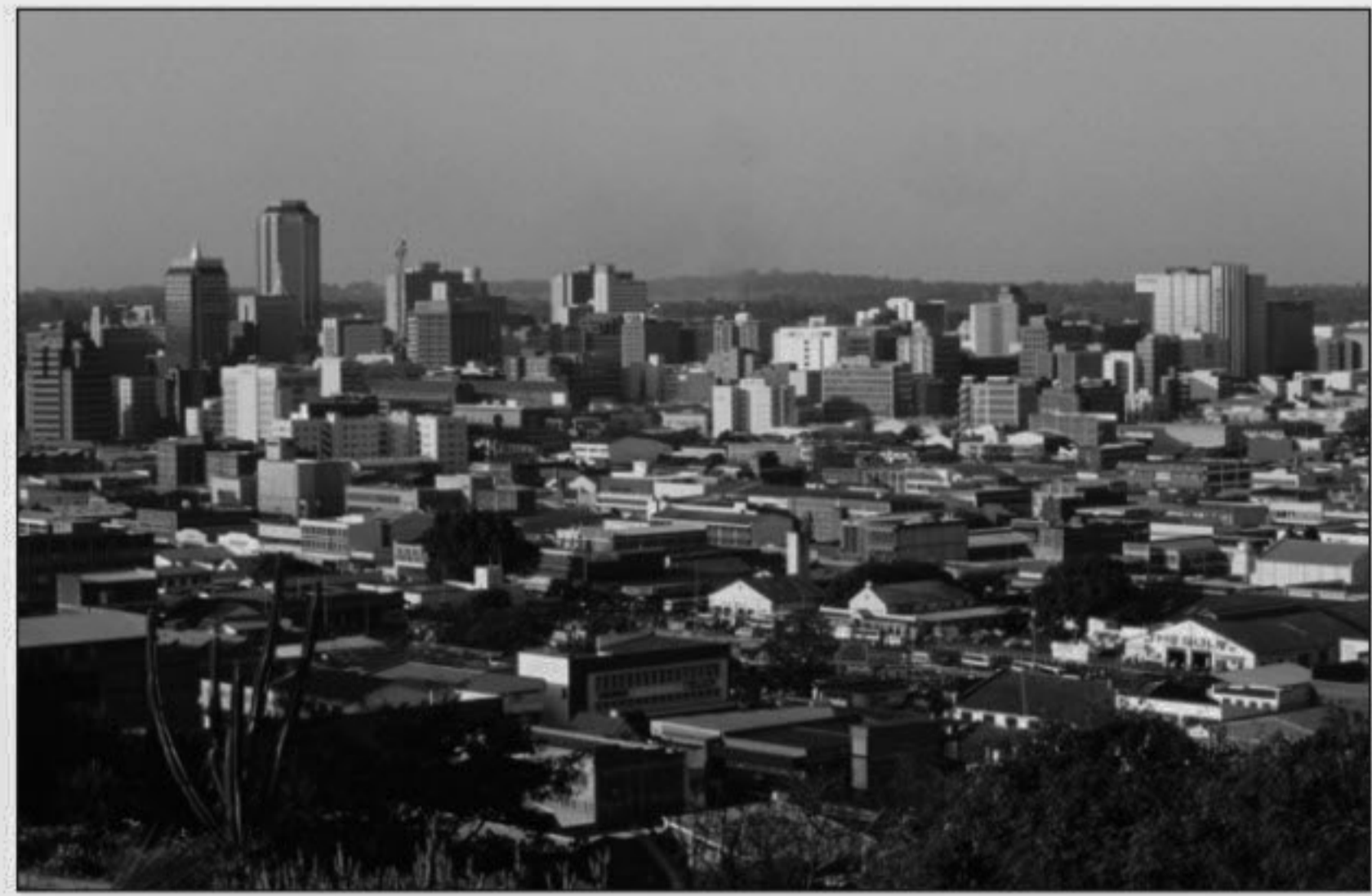
He has identified all the problems that are making Dhaka city worse and unlivable. He categorically said that because of our weak organisational sets up and management inefficiency the departments concerned are not in a position to

perform their duties and thus the situation does not improve. Dr. Saadat's write up mainly focused on the serialization of the problems, non-performing management and his heart-felt lamentation for his beloved city of Dhaka where he has been living for more than fifty years. I fully endorse his views and express same attitude towards ignominious ranking and unlivable situation in his beloved city.

I first came to Dhaka in 1967, while I was a high school student. I stayed in a hotel at Sadarghat and took bath in Buriganga river; still I remember the crystal clear water of not so narrowed river. We have destroyed the river with our own hands. We have also destroyed other rivers around Dhaka city, which, among others, are the significant reasons for the low ranking of Dhaka. To save Buriganga, it needs gigantic projects costing millions of Taka to clean the river bed, increase its natural flow and to demolish the illegal structures built by encroachers. The discharge of chemical waste from the river side industries and solid waste littered by individuals and organizations have destroyed the Buriganga.

To prevent littering, erecting illegal structures and discharge of chemical wastes by the unscrupulous industrialists is a matter of law enforcement and awareness building, not a matter of spending money from the government exchequer. Besides Buriganga, one more thing which I still remember is that while we were passing through Nawabpur Road (one of the busiest business centers of Dhaka now) in the morning, I found the road wet. Out of curiosity I asked my older brother who accompanied me at that time, the reason. He, a permanent resident of Dhaka, told that for removing dust for the wellbeing of the city dwellers, water was sprinkled every morning on the important roads of the city. Excessive dust is one of the major causes of downgrading the rank of Dhaka now. News of air cleaning project of the World Bank is a great for the Dhaka city dwellers.

Dr. Saadat enumerated over population of Dhaka as number one problem today. Uncontrolled, untrained, less educated, law breaking people (some times educated people also break civic and traffic rules) have destroyed the city. But at the same time it is true that in a poor country like Bangladesh, where unemployment rate is 35%, poverty rate is above 60% and most of the economic activities are capital centered, it is very



Worst city Harare.

much likely to have influx into the capital city on daily basis. So devolution is the only remedy. Without government policy for increasing economic activities throughout the country devolution is not possible.

Dhaka city roads cannot bear the pressure of private cars. Establishing garments industry which employs huge manpower, running private universities, schools and hospitals, inter city bus station, important government and corporate offices outside Dhaka and strengthening the divisional and district towns by industrialisation are among few steps, which need government nod with a view to reducing pressure of over population as well as traffic in the capital city.

We have lot of problems. But no situation is totally beyond resolution, as Dr Saadat observed in his article. He further said, "It is impossible to make Dhaka an exquisitely beautiful and livable city in a short span of time. It is, however, possible to improve the situation, in a long term frame work through a determined effort by people who matter and the citizens who live in the city. A battle is lost not because of an unexpected setback in the field but because of the lack of willingness to fight back. We must not lose heart..."

I fully agree with Dr. Saadat and would like to add that without the honest cooperation of all the stakeholders, it is impossible to keep Dhaka livable by reducing pollution to a reasonable level. Bangladesh's entrepreneurs ought to be sensitised to install built-in-anti-

pollution devices in their enterprises so that industrial exhaust is kept at the minimum. Besides, people friendly transport services, including sturdy, least polluting vehicles should be brought in. Dilapidated vehicles, which have been retrieved from the condemned heap, should immediately be phased out from the city roads. Digging city roads by different agencies and left for long without proper repair, rampant uncontrolled construction work by home builders and developers causing damage to the nearby roads, drainage, houses and environment should also be taken proper care of.

Awareness about the very real hazards of uncleanliness and air pollution must be addressed as a development priority. This is possible if government and opposition both join hands. If that miracle could be realized all who are potential air polluters could be made to abide by the air quality regulations. Stakeholders from all sectors -- energy, industry, transport, construction and environment -- must collaborate and cooperate sincerely to evolve dynamic partnerships among the government, the private sector and the general public to arrest air pollution, and improve the quality of Dhaka city in particular and the quality of life of the people in general.

We must upgrade the ranking of Dhaka city for our image, and for our survival.

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Second worst city Dhaka.

## Easing traffic congestion, cutting carbon emission

### Singapore experience

Enhancement of non-motorized transport facility also helped to reduce the congestion. Started with hanging safety signs for the cycling routes in 2008, in 2009 the authorities introduced better bicycle parking facilities at MRT and bus stations, foldable bicycles were allowed on board trains and buses during off-peak hours.

MD. BILLAL HOSSAIN

**C**OUUPLE of months ago I got the opportunity of participating in a training programme in Singapore. The main focus of the programme was on climate change and sustainable energy. One of the topics was the transport system in Singapore and how it was helping

to reduce the traffic congestion as well as Green House Gas (GHG) emissions there.

Singapore is an island country having no natural resources. Total land area is only 710 sq. km. accommodating a population of about 5.0 million. Total road network covers 3,300 km, Mass Rapid Transport (MRT) 119 km and Light Rail Transit (LRT) 29 km.



Mass rapid transport (MRT).

Passengers daily travelling by MRT and LRT number 1.8 million, by bus 3.0 million and by taxi 0.9 million. According to 2004 statistics, public transport is 63% and private 37%.

The motor vehicle emission in Singapore has increased over the years with greater urbanization and a rising standard of living. It is estimated that motor vehicles have been a major source of air pollution in Singapore, emitting pollutants such as SO<sub>2</sub>, lead, and Particulate Matter (PM) into the ambient environment.

In Singapore motor vehicle is administered by Land Transport Authority (LTA), a statutory body of the Ministry of Transport. The three key strategies of LTA are to manage road traffic, make public transport a choice mode, and meet diverse needs. To accomplish the strategies of LTA it adopted different measures in different times. One of the measures adopted is congestion charging. It is first introduced in 1973 under the Area Licensing Scheme (ALS). This was implemented as part of an overall package of road pricing measures and public transportation improvement based on public feedback. Motorists entering a restricted zone area such as Central District Zone or Orchard Road had to purchase and display licence on the car windshield or on the handle bars of motorcycle during peak hours. Overhead gantries were set up along the boundaries of this restricted zone for auxiliary police officers to carry out visual checks.

In such way ALS also helped to reduce air pollution in the restricted zones. The World Health Organization (WHO) worked with the Singapore Anti-Pollution Unit (APU) to monitor carbon monoxide levels in the restricted zones before and after implementation of the ALS found that carbon monoxide levels had been reduced by 60 percent.

After ten years of planning and testing, the ALS was replaced by the current Electronic Road Pricing (ERP) system in September 1998. Charges are automatically deducted from a pre-paid card as a vehicle crossed the gantry. This levy can be varied according to the congestion levels on each road and at different times of the day. LTA reviews the traffic conditions on the expressways and roads where the ERP system is in operation on a quarterly basis. After the review, the ERP rates would be adjusted where necessary to minimize congestion on the road. ERP has been effective in maintaining an optional speed range of 45 km/h (higher prices) to 65 km/h (lower prices) for expressways, and 20 km/h (higher prices) to 30 km/h (lower prices) for city and other roads. After introducing the ERP it reduced the unnecessary movement of vehicles on the ERP designated roads and at the same time reduced the number of slow drive cars.

In maintaining best possible traffic flow, the LTA has also implemented the Vehicle Quota System since 1 May 1990 to control manage the growth of vehicle population. The number of new vehicles allowed (that is, the quota) is predetermined every year, taking into account the prevailing traffic condition and the number of vehicles taken off the roads permanently. The quota for a given year is administered through the monthly release of Certificates of Entitlement (COE). An aspiring vehicle owner would need to bid for and acquire a COE before he can buy a vehicle. This system has capped the growth rate of the vehicle population at 3 percent per annum, compared with an average of 6.8 percent prior to its implementation.

Public transport was also improved to encourage commuters to use public



Electronic road pricing gantry

instead of private transport. With limited road space available, the heavy traffic during the morning and evening peak hours led to longer waiting and travel times for passengers on public buses, especially as public buses needed to make stops to pick up and drop passengers.

In order to meet the transport needs of commuters better and to offer an attractive alternative to cars, bus lanes were instituted to give scheduled public buses a dedicated right of way during the morning and evening peak hours. Full-day bus lanes have also been instituted on selected roads in the central business area to further improve the commuting times for bus passengers.

The Mass Rapid Transport (MRT) system routes were also progressively extended to improve its accessibility. The MRT system, which has reduced reliance on cars and buses, efficiently transports large number of commuters to various parts of the island each day.

Enhancement of non-motorized transport facility also helped to reduce the congestion. Started with hanging safety signs for the cycling routes in 2008, in 2009 the authorities introduced better bicycle parking facilities at MRT and bus stations, foldable bicycles were allowed on board trains and buses during off-peak hours.

In Singapore, transport planning is very closely integrated with land use planning. The planning and development of a high density and compacted city, as well as the strategy of providing jobs close to homes and community amenities in each residential town, has reduced the need for commuting, thereby reducing vehicular emissions, especially during peak hours. It's lesser congestion lesser pollution almost everywhere, providing the city dwellers an opportunity to enjoy a better environment.

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## Climate change, environment and development

MOHAMMAD MIZANUR RAHMAN

**A**T the UN Millennium Summit held in September 2000, world leaders came together to establish the Millennium Development Goals (MDGs), a set of eight objectives, each with their respective targets, to be achieved by the year 2015. These were: eradication of extreme poverty and hunger; obtaining universal basic education; promotion of gender equality and autonomy of woman; reduction of child mortality; improvement of maternal health; fighting AIDS/HIV, malaria and other illnesses; guaranteeing environmental sustainability and establishing a global alliance for development.

The fall of the Berlin Wall, twenty years ago, had already marked the start of a new era of globalization that is gradually shifting global economic power from west to east. But this process has also accelerated the

tension between growth and sustainability.

In our country, an urgency to meet the basic needs of the population such as achieving food security, access to electricity, access to water and sanitation, health, education etc. is there but environmental issues are often relegated to second place. Environmental sustainability is often presented as an obstacle to development -- as restricting, for example, the development of certain productive activities requiring the use of more expensive technologies and imposing limits on the exploitation of resources. These arguments are also linked to suppose limitations imposed by rich countries in order to perpetuate their domination over countries that seek to develop themselves.

This dichotomy is of course not worthy, as it is simply imprudent to isolate environmental and social issues from development. It is impossible to guarantee the right

to healthy life if the air and water are polluted; it is impossible to guarantee food security if the productive lands are degraded or eroded due to unsustainable practices or the use of agro-toxic chemicals; there is no long term productive project if there is not a rational use of the resources available.

A long term perspective is essential if we hope to make real and lasting progress in addressing the challenge of climate change, urbanization and demographic boost.

Science and technology are crucial tools in tackling many problems, including today's climate challenges. Science helps us to understand where the real problems lie and provides industry with a stream of innovations required to solve them. But the transmission of ideas into solutions is sometimes inadequate and requires support, especially political will. Again, if we convert the challenge into market opportu-

nities, we will create a scientifically dynamic as well as environmentally friendly industrial world. For this some suggestions are contemplated below:

- Provide clear support for difficult but necessary long term initiatives to tackle climate change challenges.
- Work with the public sector to ensure sufficient financing of potentially viable technology.
- Work more closely with researchers or research organizations to improve the connection between invention and innovation.
- Be transparent about the risks and benefits of technologies.
- Remain analytical and open about the consequences and risks of new technologies.
- Make sure performance incentives encourage researchers to spend time in communicating with the public.

- Focus on the gaps in utilizing existing technologies effectively such as smart grids, solar energy and others.
- Preserve a room for basic curiosity driven research
- Improve incentives for young researchers to intensify their exchange with industry
- Provide a clear, ambitious and long term policy framework for targets and regulations.
- Play leading role on behalf on Most Vulnerable Countries (MVCs) in reducing the global carbon footprint.
- Find new ways to co-finance demonstration projects designed to commercialize potentially important technologies
- Engage mass people with the attractive side of shifting to environment friendly and low carbon economy activities.
- Ensure that basic research receives adequate funding so that it can come up

- with breakthrough innovations.
- Go on with the existing National Adaptation Programme of Action (NAPA) and Bangladesh Climate Change Strategy and Action Plan (BCCSAP) for continuous adaptation and mitigation activities.

We have to think globally, to act nationally. Environment friendly policy and regulations that take into consideration population growth, natural hazards, agriculture, water, and land issues, forestry, fishery, environmental awareness and education as well as climate change issues, technological choices and advances in an integrated approach are the need of the hour to successfully pursue sustainable development bracing the climate change impacts.

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