

# ASPIRATIONS FOR THE NEXT 50 YEARS

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## Can we create an environmentally liveable Bangladesh?



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Since independence, Dhaka's population ballooned from just about 1.5 million to over 21 million, a 14-fold increase as opposed to 2.5-fold for the entire population of Bangladesh. Hence, for all practical purpose, Dhaka is Bangladesh. As a consequence, Dhaka has undergone rapid unplanned urbanisation that has replaced its natural environment with a new environment. It is now a boom town with a thriving real-estate market, a growing middle class, and a vibrant gastronomic, cultural and intellectual life. In a nutshell, Dhaka is an incredibly bubbly city, full of energy and pizzazz.

Having said that, amongst the least liveable cities in the world, Dhaka is ranked behind Lagos in Nigeria, and the capitals of war-ravaged Libya and Syria. And in the Human Development Index, Bangladesh stands at 133 out of 189 countries. These statistics, though unflattering, reflect the myriad of problems with which Dhaka and other cities in Bangladesh are beset with, thereupon making them surreal places to live, places that are both frenetic and paralysed.

Unbridled expansion of cities in Bangladesh has often meant inept replacement of houses in residential areas of yesteryears with multi-storied luxury apartments, high-rise offices, ritzy shopping malls, cultural centres, sports facilities, private schools and universities. In the process, low-income families have been forced into slum-like neighbourhoods, while

the poorest of the poor have been pushed into omnipresent slums, where communicable diseases fester and fires sporadically raze homes to the ground.

Stifling in the summer, often overrun with cockroaches, rats, stray cats and dogs, with trash littered all over the neighbourhood and obnoxious odour emanating from the sewer-less, burlap draped, precariously perched outhouses, a slum is unquestionably a rotten place to stay. In their zeal to gentrify cities so that they become liveable for the upper- and middle-class people, city fathers often throw out the proverbial baby with the bathwater. Instead, with a more humane approach, slums can be improved to the point where they become safer and environmentally cleaner places to live. As an example, Harlem in Upper Manhattan in New York City once epitomised poverty, crime and crumbling infrastructure. In the 1980s, urban renewal projects that included community revitalisation and housing rehabilitation programmes radically transformed the ghettos of Harlem into endurable hamlets.

In the race to accommodate ever-increasing numbers of people, cities and suburbs are likely to continue to sprawl across Bangladesh. The sprawl, however, need not be chaotic. In the new cities and suburbs, there should be preservation of some open space through parkland, promenades, scenic easements and cluster zoning that will provide breathing space and a sense of relationship between man-made environment and natural environment.



The water of Khondokia Khal in Chittagong has turned pitch-black due to unabated dumping of waste from nearby industrial units. The canal flows into the Haida river.

PHOTO: STAR

Schools, houses of worship and neighbourhood parks, to name a few, should be within walking distance of the residential areas. This will reduce dependence on cars that are a major cause of global warming, not counting traffic jams. Simply stated, before any amelioration of the grimmer aspects of urban life can be hoped for, long-range green planning is imperative. Otherwise, we will be living in an eco-unfriendly jungle of concrete structures.

As cities grow in size, so does their impact on the environment. Most importantly, they can modify some of the local climatological factors in their immediate vicinity, resulting in a relatively small-scale but tangible

variation in the local climate, which is called "urban heat island effect," or more generally microclimate.

On a hot summer night, when we walk down a city street, we can feel the heat shimmering up from the dark asphalt roads and concrete pavements which absorb copious amount of solar radiation, whereas in wintertime, we can see clouds of steam pouring out of manholes or sewer gratings. With the loss of evaporative cooling normally provided by vegetation and exposed soil, the gain of reradiated heat from these surfaces, sewers and buildings, along with the heat produced by industries, the mean temperature of cities is on the rise. While microclimate does not produce

dramatic changes in temperature, over the years the cumulative effects of these heat sources are clearly noticeable in the average temperatures of 1970s Dhaka and present Dhaka.

For the improvement of urban microclimate, it is important to maintain and/or create cold-air areas, open spaces and wooded patches. Trees an effective tool at fighting global warming will help to reduce temperature of the air by a process known as transpiration cooling. Furthermore, connected parks and green zones, preservation of lakes and rivers, creation of artificial water surfaces and large-scale heat retention expanses are essential elements of a liveable city.

Apart from microclimate, buildings contribute substantially to global warming because they use lots of energy usually generated by fossil fuels for cooking, lighting, heating and cooling. The reduction of heat loss in the winter and cool air in the summer through poorly insulated old windows is the key to mitigating the impacts of climate change. Additionally, within the context of local environmental and socioeconomic factors, several studies have been conducted to find innovative green solutions to the many climate-related problems caused by buildings. One of them is white roof which, according to researchers at the Lawrence Livermore National Laboratory in California, reflects three times the sunshine than a green rooftop garden that is used in many residential buildings in Dhaka.

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## জীবন বাঁচায় জীবনকে এগিয়ে নিয়ে যায়

৩৬ বছর ধরে ডায়রিয়া ও পানিশূন্যতায়  
অসংখ্য জীবন বাঁচিয়ে সুস্থ-সবল  
বাংলাদেশকে সামনে এগিয়ে নিয়ে যাচ্ছে  
এসএমসি'র ওরস্যালাইন-এন।



