

# Dhaka

Dhaka is one of the most densely populated and fastest growing megacities in the world. It is the capital of Bangladesh, a country whose unique geographical position makes it extremely vulnerable to the effects of climate change. It is situated on top of Bay of Bengal, on the largest river delta on the planet, formed by the confluence of Ganges, Brahmaputra, and Meghna rivers. Migration of people caused by the region's climate was always part of life in Bangladesh. However, adverse changes in climate manifested in floods, rising sea levels, and more frequent and violent cyclones are likely to displace even larger numbers of rural population. If current expert predictions materialise it is expected that millions of people could be forced to leave their homes in coastal regions of Bangladesh. Most of the displaced are likely to move to Dhaka, a city ill-equipped to deal with the pressure of such influx.



Korail Bosti ('bosti' translates as 'slum') is the largest informal settlement in Dhaka. It is situated right next to one of the city's most affluent neighbourhoods and is separated from it only by a lake. Informal settlements, due to their relatively low rents, are often the first port of call to environmental migrants fleeing river erosion in coastal areas of Bangladesh. Since the 1950s, Dhaka saw a huge influx of rural population (it grew from 450,000 inhabitants in 1951 to around 20 million today) but the environment was only one of the driving factors. Author Amitav Ghosh noted his ancestors were ecological refugees long before the term was invented- "one day in the mid-1850s the great river suddenly changed course, drowning the village; only a few of the inhabitants had managed to escape to higher ground. It was this catastrophe that unmoored our forebears..."



Korail Bosti was built in the 1990s on protected state land owned by the city's power and water development board. Studies have shown that informal settlements in Dhaka occupy only 5.1% of the land whilst accommodating 37.4% of the city's population. Like many other informal settlements it was built up gradually by rapidly growing number of people moving into the city from the countryside. As the population of the city increased water bodies and low lands were filled up to make space for new housing. This expansion took place without centralised urban planning resulting in informal settlements that do not have proper sanitation, waste management, drinking water, or electricity. Over the years illegal and substandard gas installations resulted in a number of fires destroying thousands of homes in Korail.



Mohammed Ikhlas Uddin Pramanik with his wife, Bhola Bosti, Dhaka. Mr Pramanik moved to Dhaka 15 years ago after his family house vanished in a flood of Jamuna River. He used to farm fish eggs in ponds and lakes of his native village of Taronia. When he moved to the city he first lived in Korail. He worked as rickshaw puller and now owns a grocery store. His wife used to work in the garment industry but has had to leave her job due to breathing problems. He describes some problems facing people in his community "During the heavy monsoon rains roads get logged, people experience difficulties commuting, or are even unable to leave their homes. Storms can also lead to electricity lines being disconnected. Water that is bough in plastic containers often turns out to be dirty and has to be boiled before it is consumed."



Market quarter inside Korail Bosti. More than 3000 informal settlements are scattered around Dhaka. Whereas population density in the city averages around 47,000 people per square kilometre, in informal settlements this number can be much higher, averaging 205,415 people. There is also a huge rich-poor divide with people in places like Korail facing serious problems in terms of food, nutrition, sanitation, clean drinking water, education, and healthcare. Bangladesh Health Watch report stated that "absence of basic amenities is making the urban health status in the slums worse than that in the rural areas." The Economist Intelligence Unit on the other hand has consistently ranked Dhaka as one of world's least liveable cities.



Jahir Hawladar and his wife, Bhola Bosti, Dhaka. Mr Hawladar moved to Dhaka almost 40 years ago- "We are victims of riverbank erosion. We had plenty of land. The river took everything. In search of our bread and butter, we came to Dhaka with our kids. Before we came here this was a river. Water vehicles used to commute through it. It was 200 feet deep. Whatever we earned we invested in filling this river in hope that we would be allowed to stay. This is government's land. If government allows we will stay, otherwise we have nothing else to do."



Pipes for the supply of clean water being installed at Korail Bosti. Up until very recently residents of Korail relied on illegal supply for their drinking water. Water supplied often ran through small over-ground rubber tubes laid over dirt paths. Pipes broken and taped in places would allow growth of bacteria resulting in water contamination and frequent cases of diarrhoea, jaundice, and cholera. Under new developments around 30 families will share one water connection, each paying less than half of what they used to pay to illegal suppliers. However, present benefits enjoyed by residents of Korail, as Dhaka's largest informal settlement, are quite unique. WASA, Dhaka's water authority, estimates that only 204 out of three thousands of informal settlements in the city have access to clean water supply.



Mohammed Shahabuddin and his two sons. He came to Dhaka from the Bhola island after losing his land to river erosion. "We have been watching river erosion since our childhood. Once the erosion starts it keeps going. In rainy season the erosion gathers pace, in dry season it is not as fast. Erosion takes place than char-land emerges, and so it continues. This is how people live there." After moving to Dhaka he first ran a street stall and later opened a restaurant. Although the slums are built on what is formally land owned by the government resident pay rent to local figures who claim the land as theirs. Residents are thus in a situation where they pay more per square foot than what is paid in the middle class neighbourhoods, and also inflated gas, electricity, and water prices, whilst having a threat of eviction constantly over their heads.



Road works, Bashundhara, Dhaka. Most scientist agree that climate change is induced by a large increase in human-made emissions of carbon dioxide and other polluting gasses into the atmosphere. It is one of the greatest challenges facing humanity today. Ironically, it is countries like Bangladesh that pollute the least that are likely to suffer the most. In Bangladesh rising sea levels are threatening to submerge large portions of the county's landmass and displace millions of people. Dhaka is the world's fastest growing megacity with 500,000 new people settling there every year. Economist Kamal Siddiqui noted how "a huge influx of people has led to a near collapse of the entire urban infrastructure of Dhaka city, and as such normal urban life was no longer possible for most citizens..." If faced with the sudden surge of refugees fleeing effects of climate change, the city of Dhaka would find it extremely difficult to cope.



Boats crossing Buriganga River at Sadarghat, Dhaka. In "Bangladesh Confronts Climate Change", Roy, Hanlon, and Hulme note: "A widely propagated myth is that there are already climate change refugees in Bangladesh. Floods, erosion and cyclones have forced people to move for centuries, and they might be called 'environmental migrants'... Climate change is expected to increase the number of environmental migrants, but it has not done so yet, which creates a problem and a paradox for Bangladesh. Donor agencies want to help climate change migrants now, to show that aid is already helping. Journalists want climate change migrants because it makes their articles look better. Bangladesh needs the publicity and wants the money, so environmental migrants are re-labelled climate change migrants. In recognizing just how serious climate change will be later in this century, there is a tacit agreement to exaggerate what has happened so far."



Bhola Bosti, seen from atop of adjacent residential building, was created by filling a lake with various building materials and waste. Author Doug Saunders claims that informal settlements are largely misunderstood- rather than being 'the last refuge of failures', these are dynamic and upwardly mobile communities who actively invest in their surroundings and constantly strive to improve their lot. Anthropologist Janice Perlman, studying favelas of Rio de Janeiro, came to a similar conclusion. "These supposedly marginal places are communities striving for elevation." Built by "dynamic, honest, capable people who could develop their neighbourhoods on their own initiative if given the chance... In short, they have the aspirations of the bourgeoisie, the perseverance of pioneers, and the values of patriots. What they do not have is an opportunity to fulfill their aspirations."

## Interview with Prof. Dr. Saleemul Huq, Director of the International Centre for Climate Change and Development in Dhaka

**How serious is the problem of changing climate we are facing today?**

Climate change is by far the biggest challenge facing humanity today. Accumulated greenhouse gases trapped in the atmosphere are already causing more than 1°C rise in global temperatures and although we want to keep it below 2°C, or even 1.5°C, as things stand we are headed for 3°C which could be catastrophic for humanity.

**What is climate change and what are its main causes?**

Climate change is the change in the atmosphere and the ocean cased by emissions of certain gases, known as greenhouse gases, which absorb the sun’s rays and raise the temperature of the atmosphere which in turn raises the temperature of the ocean as well. This has been going on since the Industrial Revolution mainly because of the burning of fossil fuels like coal and oil that have been giving energy to humanity for the last 200 years.

**How do we know that humans are the main culprits?**

We know that humans are the culprits because we are the ones causing the emissions of greenhouse gases. They come from burning fossil fuels for energy, for electricity, for cars, for vehicles, for transport, for heating, and cooling. We’ve been heavily reliant on fossil fuels since the Industrial Revolution leading to accumulation of greenhouse gases in the atmosphere which are now causing the problem of global warming or human induced climate change.

**If climate change is real and humans are causing it do all countries contribute the same amount of carbon dioxide emissions?**

In terms of who contributes how much, it depends on the size of the country and the emission profile of the country. Rich countries by and large emit much more than poor countries do, but even poor countries like China and India, because of their vast populations, emit quite a lot. The biggest emitter in the world is China, the second biggest is the United States, followed by others.

**What is the carbon footprint of Bangladesh?**

Small countries like Bangladesh contribute very little, around 0.15% of global emissions. Not only is it small in absolute terms but if you divide that by population of Bangladesh which is 160 million people then it becomes vanishingly small. Bangladesh is a very small contributor to the problem, we are a contributor but a very, very small one, and at the same time we are also one of the most impacted. We are going to be affected by other people’s emissions rather than our own emissions.

**What impacts of climate change are we likely to see in the future?**

The impacts of climate change are going to be varied across the globe. In different parts of the world they will take different forms. In flood-prone areas it will mean more intensive floods, in cyclone and typhoon prone areas if the mean more cyclones and typhoons, in drought prone areas it will mean more droughts. All over the world it will mean higher temperatures. This year in fact we had some of the highest temperatures in the world everywhere, red heat waves going on and people dying from the heat. That is a direct effect of climatic changes. Other more indirect impacts like sea level rise due to thermal expansion will inundate very low level parts of the world, some atoll islands in the Pacific, and some low lying deltas like Bangladesh.

**How vulnerable is Bangladesh to the effects of climate change? How could it be impacted by the rising seas?**

Bangladesh is one of the countries most vulnerable to the impacts of sea level rise. A major reason is its geographical location on the delta of three major rivers of the world, Ganges, Brahmaputra, and Meghna, which regularly flood and are going to flood even more with climate change. It’s a very low lying coastal area that is going to be affected by sea level rises and is already being affected by salinity intrusion. On top of that, it has very large and dense population of 160 million people living within 150,00 square kilometers of land. This equates to the population density of over 1000 people per square kilometre, which is in fact the UN definition of a city- the whole country has the population density of a city! Finally the population itself is relatively poor and hence less able to cope with impacts of climate change. For a variety of reasons Bangladesh often and in many different analyses of global vulnerability comes out as the number one most vulnerable country in the world.

**What are the main ways by which governments are trying to tackle climate change today?**

The government of Bangladesh has been long aware of this vulnerability to climate change and over the last 10 years has done quite a lot of activities. One of the major activities is Bangladesh Climate Change Strategy And Action Plan which was developed in 2009 and is currently being revised. The government has been putting quite a lot of its own money, in the region of \$100m a year over the last seven-eight years, to implement many of the actions to deal with the impacts of climate change. I would argue that Bangladesh is one of the countries that has taken the climate change issue very seriously from the very beginning and has been trying to develop strategies to tackle it. There’s still a long way to go but we are moving in the direction of trying to find solutions to adapt to impacts of climate change.

**How high will the global temperatures rise? What are the current targets for the rising global temperatures and are these targets ambitious enough?**

This is a very uncertain question. At current trends it’s going to around 3°C or above if we don’t take action. We have agreed to take action in the Paris Agreement in 2015 and we have agreed to keep it below, well below, 2°C and if possible below 1.5°C, but unfortunately we haven’t done enough to make that happen. In order to keep the temperature below 2 degrees all countries and all actors are going to have to raise their ambition in terms of reducing the greenhouse gases as much as possible, as fast as possible, and certainly much faster than they are doing at the moment. And that means all countries. The good thing is, in the Paris agreement all countries have agreed to do it. They are doing some things but they are not doing enough, so everybody has to do more.

**What would happen if the measures taken are inadequate and the world heats up more drastically, by 4°C or more?**

If they don’t take action then we are certainly heading for 3 degrees plus temperature rise over the next 50 to 100 years and that would be globally catastrophic. In fact, it would be unpredictably globally catastrophic. We can predict it would be globally catastrophic but not exactly how. There are variety of possibilities as to that might happen but essentially it’s will upset the entire global weather and climatic system which humanity has come to rely on over the last tens of thousands of years in which human beings have been on this Earth. This is not very long compared to the Earth’s own history but nevertheless it’s a window of climatic conditions to which we have become accustomed and if it goes wrong then it would have very, very drastic impacts on humanity everywhere. Nobody will escape it. The important thing to understand is that even though the world is differently distributed in terms of wealth and poverty and in terms of potential impacts of climate change, eventually even the richest, living in the least vulnerable parts of the world are going to be badly affected by climate change. In that sense it’s a global catastrophe that will not spare anyone. It will hit some first and others later but it will hit everybody in the end.

**Are recent floods, storms, and heath waves manifestations of the changing climate?**

The recent events of the last two years, and particularly I would say this year, with the heatwave going around the world, is really the tipping point where it is now undeniable whether human induced climate change is real

or not. You have to look out the window, anywhere in the world, and you will see the impacts of climate change, you will see anomalies that you have not seen before, you will see changes that you have not seen before, you will see extremes that you have never seen before, all of which have been predicted by the impacts of climate change models and science, and so it is now a done deal. The only people that deny it are are stupid people like Mr Trump.

**What are the main reasons for rural-urban migration and people coming to Dhaka?**

The main reason that people come to Dhaka is because it’s the industrial and commercial heart of the country. People come for jobs and the jobs are here. People move from the rural areas of Bangladesh for variety reasons, partly due to environmental factors and river erosion. Land erosion is the biggest one and that will get exacerbated with climate change. The change in climate we are expecting to see is going to cause much larger number of environmental migrants, or environmental refugees, or even climate change refugees, although at present time this is not the term accepted to be used generally.

**The national census shows that 80 per cent of those migrating to Dhaka do so to look for work or because of poverty. Only 8% move directly for environmental reasons. However, is there a link between poverty, unemployment, and environmental factors? Can many of them be considered indirect ‘environmental migrants’ because poverty they are escaping has been amplified by environmental factors and the loss of land, livelihood, or home, starts a process of impoverishment that can only be solved by migration?**

Defining environmental migrants or climate change migrants is extremely difficult. Migration occurs for a variety of reasons, it is a very complex phenomena, and ascribing it to one single reason would be very difficult. However, in general what one can say is that one of the biggest reasons for people leaving the rural community to move to a town or city like Dhaka is river erosion, when they lose their land to the river, or the coastal erosion in the coastal area. That’s one of the biggest reasons why people then leave. In the past they would still hang around because when the river erodes sometimes a land comes out of the river again so we have a formation of land and then these people have the legal right to settle that land as well. But increasingly that becomes less reliable and so people tend to leave the area and move to towns. That’s the number one environmental reason for people moving and that can be tied to the impacts of climate change which are going to get worse. River flooding and river erosion are likely to get worse with climate change hence we can make prediction that more people will have to move due to human-induced climate change. The very specific attribution to human-induced climate change is sea level rise. That’s a new phenomena which we haven’t seen before and that is already happening now. With it we have salinity intrusion in the coastal areas which we expect is going to get much worse so many people who are now living in the coastal areas simply won’t be able to live there for very much longer and will have to move. Although we cannot say who is a climate migrant today we can say who’s going to be a climate migrant tomorrow. They number in the millions and they live in the coastal areas of Bangladesh.

**What are the most important challenges facing Dhaka in the future?**

Let me end by talking a little bit about the future of urbanisation broadly, climate change, and Dhaka City. These three together are very important nexus of the future decade or two for the country because we know for a fact now that in the order of 10 million, plus or minus, people from the low-lying coastal areas of the country will no longer be able to live there over the next 10 to 20 years. If we don’t do anything they will all end up in Dhaka City. Dhaka is already the fastest growing megacity in the world and absorbing another 10 million in a relatively short span of time is going to be very, very difficult.If we don’t want them to come to Dhaka city we have to think about having them go elsewhere, other towns around the country, but we can’t force them to do that so we’re going to have to create conditions to attract them. What they are doing at the moment is looking at investing in about a dozen towns around the country away from Dhaka, which are relatively distant from the coast so they won’t be inundated with sea level rises, and to invest in them to create jobs, education opportunities, and living conditions to absorb another million people each. Ten towns at a million people per town, that’s 10 million people that can go there instead of coming to Dhaka. However, we can only do that by attracting them there, we have to create the jobs and economic conditions for them to go there and that really is the solution to Dhaka City’s overpopulation problem. It is not to invest in Dhaka but to invest in other towns and allow, enable, encourage, and support people to move to those other towns. Another dimension to the strategy that I just mentioned, the strategy is called Building Climate Resiliant Migrant Friendly Towns, making them into migrant-friendly towns, which is more of a cultural and behavioural activity then a physical one, is to invest in the future. So we are not talking about the people living in the coastal areas of Bangladesh now, who are farming or fishing, but their children. If we invest in their girls and their boys to educate them so that they don’t have to become agricultural farmers and fisherman like their parents, but enable them to go to towns and create jobs in these other towns, then we are talking about taking the next generation of people of Bangladesh to move to these places who can then, once they move, take their parents with them. In this sense they are climate migrants but migration becomes a positive. We make a climate migration from a negative forced migration to a positive planned migration, planned by the people themselves, not planned by the central authorities or the government but people making their own decisions to move and take their families with them and be economically better off. This is the vision we are working on. We are still trying to work out the details of how to do it, where to, which towns to invest in, although shortlist has been made already, and that’s where we are right now in the case of Bangladesh. We are looking at trying to solve multiple problems at the same time, namely educating the next generation, investing in other towns other than Dhaka City, enabling job creation, allowing climate resilience to be built into these towns, and enabling the next generation of youth, young people, boys and girls, to move to those towns and get jobs in those towns and continue the urbanisation of Bangladesh, which is happening very rapidly, in a more harmonious and balanced manner.

## Interview with Prof. Dr. Adnan Morshed, an architect, architectural historian, and urbanist

**Lewis Mumford asked ‘What is a city?’ Similarly, could we ask ‘What is Dhaka?’ What does Dhaka mean to you?**

I think it’s a fascinating question- to understand a city like Dhaka, a very congested, crowded, polluted city, that has been typically included in the list of world’s least liveable cities, one has to understand the economic processes of how agrarian society rapidly becomes an urban society, and all kinds of cultural, economic, social, religious, and political conflicts that arise out of this rapid transformation. Dhaka is an experiment of modernity, an experiment of industrialisation, and experiment of our modern world that is gradually moving away from some sort of sedentary agricultural life to a more mobile urban life. In that sense, to understand Dhaka, you have to look at it from a global perspective.

**Urban explosion in world population will be accommodated largely in informal settlements. Most of the half a million people who pour into Dhaka each year usually live in informal settlements first. Is it because informal settlements are sources of cheap accommodation?**

Thirty to forty per cent of Dhaka’s 16 million people live in slums, which is a huge portion of the population to be living in abject poverty. I think policymakers have become a little desensitized to the issues of urban poverty which is significantly different from rural poverty. At the core of rural poverty is the lack of economic opportunities, but at the core of urban poverty is the lack of access to affordable housing. I’ll give you one example- in the richest areas of Dhaka where people live in very luxurious, sumptuous houses, they pay 40 taka per square foot for a rental property, but in Korail slum the ultra-poor may be paying 67 taka per square foot in a small room. That shows how the poor pay more for housing than the ultra-rich so that’s already an ironic factor that defines slum living. At the same time slums have traditionally been seen the icons of destitution, hopelessness, and despair, as blighted and depressed economic zones. However, you’d be surprised at the level of economic productivity inside of slums. Janice Perlman has shown in her study of favelas in Rio de Janeiro in Brazil that slums are not places of laziness and despair but rather hubs of tremendous amount of activity, dynamism, and community building. Slums are not necessarily the hell of the of the city but they are areas where people are struggling to make ends meet. Authorities do not pay attention to slums for a host of reasons. There are political mafias who often let the poor live in government lands as slum dwellers and charge their rent. They want to hold on to the areas as a source of income. That’s why from time to time, when the slum dwellers become too comfortable, they are evicted by arson. By mysterious fires which are deliberate. Slum dwellers live at the mercy of the political mafia or various slum-lords (mastans). They can be evicted without any reason, without any prior notice, so they live a life of uncertainty. That’s why oftentimes slum dwellers do not like to invest too much in their homes inside the slums.

**Some of informal settlements of the city have existed for a considerable time. A survey in 2005 showed that 37% of Dhaka’s population was living in informal settlements, often four or five people per room. Considering the difficult living conditions why are city authorities not tackling this problem?**

It was recently announced by the Prime Minister and the policymakers that slums will be replaced by multi-story, affordable apartment blocks, either on the same site or alternative sites. Most slums were built on government lands. Korail slum was built on the government land at the heart of the very wealthy quarter of the city. It’s considered prime real estate so authorities would probably rehabilitate slum dwellers on the fringe, on the outskirts of the city. Oftentimes, because there is no participatory design process apartments will be built but slum dwellers will not be culturally adaptable to the newly built housing so they would live there for five or six months and then abandon their new high rise towers. Then the political mafia would come in and occupy these newly built apartments. This is what happened at a rather infamous slum rehabilitation project called Vashantek. Vashantek was built to replace a slum but eventually failed because its residents could not adapt to the new kind of lifestyle. In that void the political mafia and the slumlords moved in and the project was abandoned. If you go to Vashantek today it feels like a ghost town.

I think the fundamental problem is not slum improvement. The fundamental problem is how we treat the urban poor as the other. We often don’t treat them as the citizen of the city, we treat them as people who can be pushed around, people who are not like us, who are always seen from the bourgeois middle class perch. They can be pushed around, they can be treated horribly, not even as humans sometimes. To address the concerns of slums we have to first look at our attitudes towards poor. Government policies and people’s attitude towards the poor, and the poor themselves, their self-image, their self-perception, these are all very challenging anthropological questions that we have to address in order to create a city that is socially just. To create a city where all people irrespective of their economic background will have access to equal opportunities.

**Do you think this is another challenge for an urbanist and an architect- to design not only a space but also a place to enable the community to function again?**

Precisely, architects and planners have to be urban anthropologist and urban sociologist too. In other words, an architect or a planner working on affordable housing project for slum dwellers often have to unlearn some of the formal training they received at school. Sometimes they have to cross disciplinary boundaries to really understand how people live their lives, particularly in slums. In slums there are communal kitchens that revolve around unique community organisation- one day one person cooks, next day another person is in charge of twenty people and their food, so you have to maintain that sense of community. Otherwise people feel threatened, they feel isolated, and that alienation compels them to go to a place they can relate to.

**As a young man, Lewis Mumford advised his countryman to “forget the damned motorcar and build cities for lovers and friends.” Yet, as you have observed in one of your essays, Dhaka as a capital of a modernising country, has adopted a model of Urban Renewal, a model that overlooks the environmental cost of rampant car usage. Having benefit of hindsight and looking at problems that besotted western megapolises of the last century after they prioritised speed and free movement of cars above everything else, is there a model of a city that does not revolve around the automobile?**

The rapid urbanization that has been taking place in Bangladesh since 1980s happened kind of accidentally. Oftentimes policy makers saw gentrification as a sign of progress, as a sign of development, and as a sign of great economic growth. But at what environmental cost? As Kevin Lynch, Lewis Mumford, Jane Jacobs and many others who wrote about urbanism noted, cities should be built for people. For people who should not to feel alienated by the development regime and should be included into the development process of the city. In Dhaka, I’m sure many kids are growing up without seeing a tree on a daily basis. They move from bubble to bubble, particularly the middle class kids, move from bubble of air-conditioned house, to air-conditioned car, to air-conditioned school, and return back home without seeing a tree. When we are so removed from nature we will not grow or develop empathy for the city. When I was a kid I was walking from home to school. Walking made us observe the details of the street, the trees, the sky, the historic buildings, even shops, we used to do window shop as we go to school. I think that doesn’t happen anymore so I think in order for us to developing a new generation of urban citizens we have to make them love their neighbourhood, their streets, and their natural setting.

**Le Corbusier believed that most urban problems could be fixed by separating the city into functionally pure districts arranged according to the simple rational diagrams of the master architect. Joan Clos, the Executive Director of UN-HABITAT, said “Master planning, for me, is not urban planning.” Is top-down planning effective in design of urban settlements?**

Le Corbusier has been writing about urbanisation since the 1920s and his books became foundational documents for the notion of city master planning. His Ville Contemporaine in the 1920s, Ville Radieuse in the 1930s, and his work in the cities of Chandigarh and Brasilia are examples of those planning philosophies. One of the central pillars of Le Corbusier’s philosophy was zoning or division of various urban functions. However, as Jane Jacobs brilliantly demonstrated in the 1960s, this separation of various urban functions often

dehumanises the city and makes it sterile. I have I lived in Boston for many years and I have seen how Boston’s downtown becomes dead after 5pm because there’s no mixed-use development, there are no residences, so downtown becomes a ghost town. Zoning is an example of top-down planning that often works only on the drawing table. I think that modern planning of liveable cities has to take into account the people for whom the cities are designed.

**Is this what Joan Clos means, that strict urban planning is not effective planning? How would you relate this to Dhaka?**

Planning of Dhaka cannot be top-down or bottom-up, or even a combination of top-down and bottom-up. Dhaka cannot be master planned. We can have an instrument of planning, or an instrument of its future growth, but for Dhaka to create some level of cityness it has to be organic. Its development has to be comprised of small tactical interventions to determine what works. It has to be incremental with some good examples here, some good examples there. People would then replicate the good. For example, instead of hoping to solve public transport issue for the entire city we can start by introducing one bus line on a three or four mile stretch of the city road to show the city planners that the concept does work. I think tactical small-scale interventions could solve a myriad of urban problems we experience in Dhaka.

**By 2050, an extra 3 billion people could live in the cities- 65-75% of the human population. This is a unique event that happens only once during human history. What implications will this migration have on life as we know it?**

We know that the future is urban. Ten years ago we crossed a huge milestone in human history when for the first time more than half of the world’s population began to live in cities. Cities of today constitute only 3% of the world’s surface and contribute 75% of the global GDP. Cities are engines of economic growth and unless we make them liveable and economically and environmentally sustainable we could experience a number of problems. This anthropocenic world that we have created has already started a process of slow poisoning of our planet. Twenty or thirty years from now future generations will not live in a world that we once knew. Therefore, the challenge we face now is to find a way to maintain the economic growth which is at the same time in balance and harmony with the environment.

**Do you think that architects have a big role to play? More buildings will be built in the first three decades of this century then in all of the human history combined. Building sector consumes some 48 per cent of the energy used annually in the United States, and it emits nearly half of the carbon dioxide, through greenfield development, cement production, and the burning of fossil fuels. Is climate change thus the fundamental design problem of our time?**

I think architects should play a very important role in the narrative of global urbanisation. Urbanization means more buildings, more covered areas, more heat, more carbon emissions. Architects should be building more and more environmentally sustainable buildings with lesser carbon footprint and step away from the old school spectacular structures. In a way, architects of today have to be environmental activist as well.

**In your reading of Allan Ginsberg’s Howl you state that his “modern city is hardly a wasteland, but rather a battlefield where the social, cultural, and economic forces of modernity engage in an epic battle.” Saskia Sassen sees a city as a frontier- a place where actors from different worlds have an encounter for which there are no established rules of engagement. For her, the city enables those without power to say “City is also mine!” Is this how the question of urbanisation in a developing country should be understood- as an epic battle for betterment where environmental considerations often take a backseat?**

We often view cities from economic perspective and quickly and prematurely categorise them as liveable or unliveable, good or bad. To understand cities we have to look at what processes shape them into the places they have become. I think cities are the battlefield of modernity. Modernity is not just safe narrative of economic growth or social progress, modernity is a conflicted concept in the sense that there are promises and there are perils. There are good things and there are bad things. As Charles Dickens beautifully put it “It was the best of times, it was the worst of times.” Cities are reflections of the multifaceted, contradictory narratives of modernity. On the one hand we see infrastructures, technology, technological growth, but we also see poverty, we also see these extreme opposites, how they coexist in cities- in a way that’s modernity. I think cities are the next frontier of human existence. Cities are the next frontier of progress which in itself is a conflicted idea. On one hand we are progressing in terms of technological and economic growth but we are also fighting each other, we are creating more and more ethnic walls. In the 20th century we have seen more wars and more killings than ever before so how does that then legitimise our meta-narrative of human progress? Modernity is fundamentally a conflicted narrative and cities are the best and the most poignant representation of modernity. I think we have to see cities as such and understand that urbanisation is fundamentally a messy process, like nationalism, like democracy, like politics.

Dhaka, August 2018.





A char is the new land created through dynamics of erosion and accretion of the rivers of Bangladesh. They provide new opportunities for settlement, agriculture, and farming, but are very vulnerable to flooding and erosion, and are usually not permanent. Islampur, Jamalpur Upazila, Mymensingh Division.



# Loss and Damage

By Ismar Uzeirovic and Dr Shohrab Sarker (Research Associate)

Loss and damage, when used in relation to the environment, is the term used to describe not only the negative economic impacts of anthropogenic climate change but also the irretrievable loss of cultural heritage, knowledge, traditions, habitat, and biodiversity.

Bangladesh is often quoted as one of the countries likely to be worst affected by the effects of the changing climate. It is predicted that a number of environmental factors such as sea-level rise, riverbank erosion, saline water intrusion, and more frequent and violent storms, combined with economic factors, will drive increasingly larger numbers of people from their homes in the coastal areas of the country.

Although the movement of people is primarily caused by economic factors, in the deltaic areas of Bangladesh river erosion exacerbated by the changing climate is nevertheless one of the significant forces driving the migration of the rural population towards the cities. As Prof. Dr. Saleem Huq put it, "Although we cannot say who is a climate migrant today we can say who's going to be a climate migrant tomorrow. They number in the millions and they live in the coastal areas of Bangladesh."

The effects of climate change can to some extent be mitigated by increasing the resilience and adaptive capacity of the communities to make them better able to cope with the challenges they face, and in turn, make migration a less attractive option. Along the Meghna River, locals are fortifying river banks and strengthening flood defences. In some areas, school teaching takes place on boats that sail to collect children from their catchment area. In others, farmers are switching to more saline water-resistant rice crops, or using floating cultivation beds that are able to grow vegetables even in high waters of the monsoon season.

Building on the previous experience, the planners in the country are trying to turn the challenge into an opportunity for development. In an effort to relieve the pressure away from the capital, the government of Bangladesh aims to develop a number of climate-resilient and migrant-friendly cities, providing jobs and opportunities to attract migrants. The town of Mongla is one example. The plan is to make this deep water port into a regional hub, but as things stand, the town is still poorly connected to the rest of the country whilst accommodation and drinking water supply remain major issues.

The second phase of this project, originally conducted in Dhaka, looks to make a connection between the megacity and the hinterland, between the traditional and urban way of living, and provide a snapshot of a country and humanity in transition.

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Rice field partially washed away by the river. Dewanganj, Jamalpur Upazila, Mymensingh Division.



In some parts of Bangladesh river erosion happens rapidly, taking with it large swathes of inhabited land. In this spot the riverbank moved by a kilometre within the space of a year. Dewanganj, Jamalpur Upazila, Mymensingh Division.



Country road swallowed by river erosion. Char Hogla, Mehendiganj Upazila, Barisal District, Barisal Division.



Electricity pylons damaged by river erosion. Meghna River, Barisal Division.



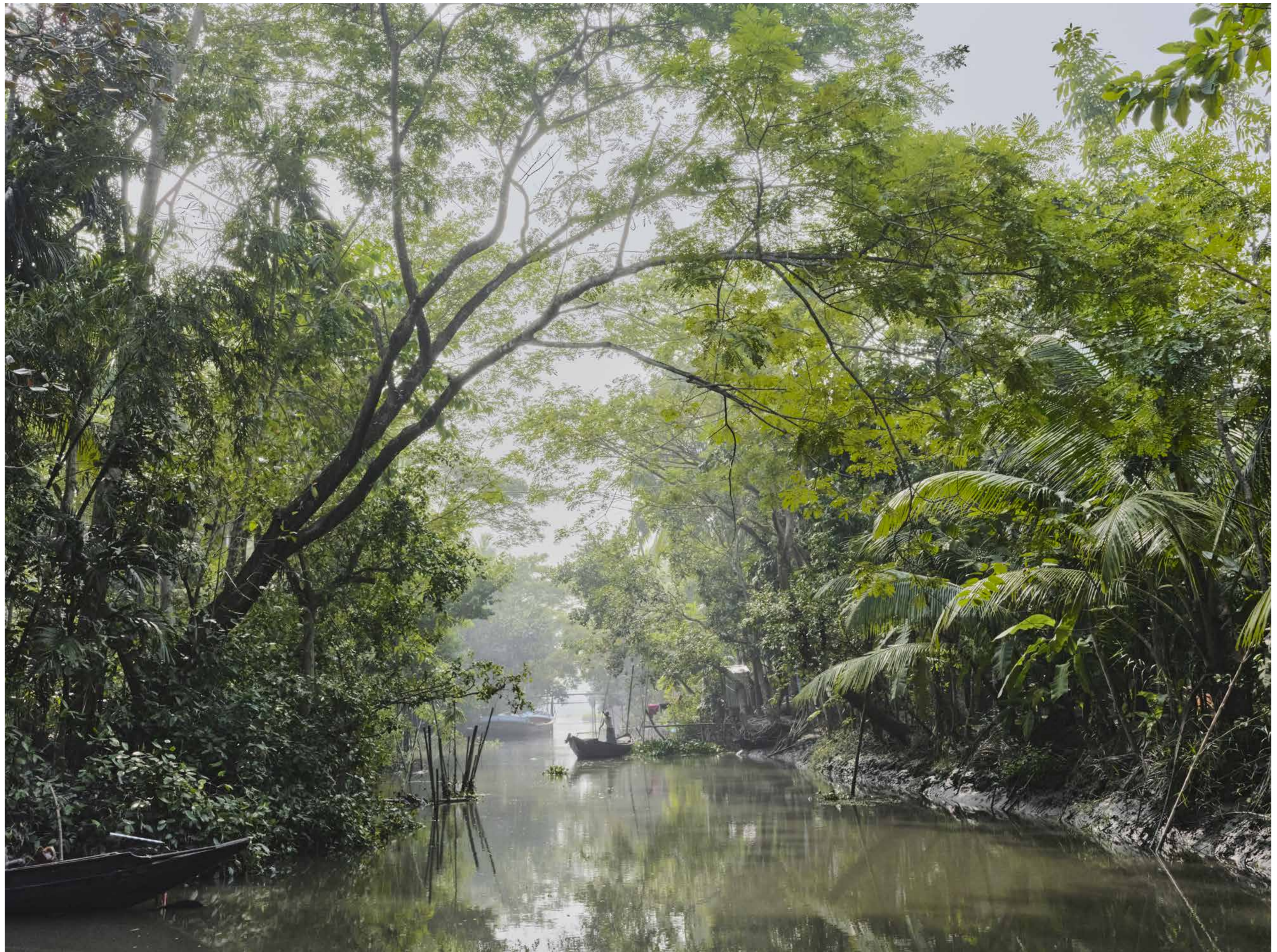
Municipality workers installing concrete blocks to strengthen the riverbank. Ulania, Mehendiganj Upazila, Barisal District, Barisal Division.



Sandbags and heavy concrete blocks are used to control the riverbank erosion. Ulania, Mehendiganj Upazila, Barisal District, Barisal Division.



Although new alluvial land is created elsewhere after a riverbank is washed away, the soil, on which the rural population depend for their livelihoods, may not be suitable for agriculture for as long as a decade. Mehendiganj Upazila, Barisal District, Barisal Division.



River canal, Najirpur, Pirojpur District, Barisal Division.



In order to adapt to more frequent floods, farmers use cultivation beds that float upwards during the high waters of the monsoon season. Najirpur, Pirojpur District, Barisal Division.



The boat, which is also a school, collects pupils who would otherwise be unable to attend when their homes get cut off by floods. Islampur, Jamalpur Upazila, Mymensingh Division.



The rural population of the delta region traditionally make a living through both fishing and crop cultivation. Rukundipur, Mehendiganj Upazila, Barisal District, Barisal Division.



Traditional homestead. Rukundipur, Mehendiganj Upazila, Barisal District, Barisal Division.



Tin roof of a home damaged by the Cyclone Bulbul, Mehendiganj Upazila, Barisal District, Barisal Division.



In the coastal areas of Bangladesh it is common for people to be displaced a number of times. This house was built in such a way that it can be dismantled and moved to a new location if required. Char Hogra, Mehendiganj Upazila, Barisal District, Barisal Division.



A fallen tree in front of a house. The Very Severe Cyclonic Storm Bulbul caused enormous damage in the coastal areas of Bangladesh and took away lives of 25 people. Pirojpur District, Barisal Division.



Early morning commuters. Because of the adverse effects of the climate change increasing numbers of rural population find it difficult to make a living through agriculture and decide to move to the cities. Mongla, Bagerhat District, Division of Khulna.



Mongla was designated as one of the "secondary cities", designed to attract migrants away from Dhaka. Bagerhat District, Division of Khulna.



Mohammad Khan Jahan Ali makes a living selling bottled water. Although the town is surrounded by rivers the available water is saline and not suitable for drinking. Mongla, Bagerhat District, Division of Khulna.



The population of Mongla has grown by 60% in the last five years and the land prices are rising rapidly. The government plans to turn the town into an economic zone with a new bridge, railway station, and an airport, all in the pipeline. Mongla, Bagerhat District, Division of Khulna.