Dhaka Tribune SATURDAY, APRIL 25, 2020

Climate Tribune

Can climate change cause conflicts?

Exploring the understanding of climate change impacts and conflicts

Adnan Ibne Abdul Qader

limate change as the ultimate "threat multiplier" Climate change is a global threat to security in the 21st century. The United Nations climate panel, the IPCC, gave the world just 12 years to make the drastic but necessary changes. Its report said emissions had to be cut by 45% before 2030 if warming was to be restricted to 1.5-degree Celsius. At 1.5 degree Celsius, 10 million fewer people would be affected by rising sea levels, and the proportion of the world's population exposed to water stress could be 50% lower. However, a scenario where the temperature is 2 or 4 degree Celsius the scenario is much more different. It is also vital when small islands, drought-ridden countries and coastal countries like Bangladesh are highly vulnerable to climate change.

Climate change will stress the world's economic, social, and political systems. Where institutions and governments are unable to manage the stress or absorb the shocks of a changing climate, the risks to the stability of states and societies will increase. Experts call these states fragile. The sharpest risks emerge when the impacts of climate change overburden these fragile states. Climate change is termed as the ultimate 'threat multiplier', meaning it will aggravate already fragile situations and may contribute to latent conflict (social disturbance) and even violent conflict. While all will feel the effects of climate change, the people in the poorest countries – and the most vulnerable groups are the most threatened. In places affected by fragility and conflict, people face especially challenging obstacles to successful adaptation. If they fail to adapt to the effects of climate change, the risk of instability will increase, trapping them in a vicious cycle. The most recent example could be from the Dharavi slum in Mumbai, which has seen multiple environmental migrants who

are now at risk of contracting COVID-19. Most of the slum dwellers moved to that slum because they lost their cropping lands to adverse climate variability.

However, it is a tricky topic that has divided scientists for a very long time. In 2007, UN Secretary-General Ban Kimoon described the conflict in Sudan's Darfur region as the world's first event where it was proven conclusively that climate change can lead to violent conflicts. The assumption was that water scarcity from changed rainfall patterns from climate change contributed to this conflict. Regions that are likely to receive less rainfall have a higher chance of conflict. Moreover, the Syrian conflict started in the year 2011. However, experts have debated regarding the causes of the Syrian conflict, and it would be a misnomer to relate the conflict to climate variability in lights to economic instability or vice versa.

What are the thoughts regarding this topic?

The IPCC has not touched on this topic since 2014. But recently, the research on the topic has surged; however, it should be noted that different disciplines take different approaches and there is a lack of information about regions bevond sub-Saharan Africa and Asia, Experts don't agree on how to study the effects of climate change on conflict. Some argue that climatic factors such as increased temperatures and erratic rainfall have a strong effect on violence at all levels, from the individual to between national armies. Other researchers challenge this view and stress how non-climate factors raise conflict risk.

What has changed?

Since 2017, experts came to a consensus regarding what was working and what was not in this particular field. The task was to gain an understanding over climatic and non-climatic factors that have caused conflicts in the past century and effectively understand the changes in



these scenarios of a world that will see a two- and four-degree Celsius temperature rise, as mentioned by the IPCC.

The findings were published in the 2019 peer-reviewed journal article "Climate change as a risk factor for armed conflicts" authored by various experts in the field of climate change, economics and politics under the Nature Research Publications.

The experts came up with the following conclusions: In the current climatic scenarios, a state with limited capacity, inequality, experiences economic shocks, population pressure, civil conflicts, or a state that can no longer depend on natural resources will be more likely (certain) to face conflicts. In contrast, those states with low socio-economic development, climate variability will face an unlikely (uncertain) scenario regarding conflicts.

However, things will not look good for a state that faces multiple such factors coupled with a climate change as a threat multiplier. In such scenarios, the scientists predicted that if the world does not reduce emissions and continue on the same path of business as usual, the risk of seeing climate-induced violence like that of Darfur will increase by fivefold.

What can be resolved?

It would be wrong to say that climate change alone causes conflict. Climate change is a threat multiplier which can act as a catalyst for a fragile state. The association of climate and conflict is a mixture of multiple factors, and it can be adequately concluded under the new joint consensus that a state with those multiple factors coupled with climate variability can lead to a scenario of violent conflict.

What does it mean for Bangladesh?

The country's geography makes environmental vulnerability inescapable. Bangladesh is a flat country surrounded on three sides by India and the fourth by the Bay of Bengal. It is a delta, a massive drain for three mighty rivers that flow through the Indian subcontinent (the Ganges, Brahmaputra, and Meghna), for the Himalayan glacial melt, and the area's annual monsoon rains.

Waterlogged land loses 18-75 per cent of its area to temporary flooding each year, which kills some 5,000 Bangladeshis annually, causes homelessness for many more, and disrupts the lives of the rural dwelling majority. Rising waters will mean losing habitable land. Bangladesh is also vulnerable to devastation by cyclones. Scientists have predicted more frequent and intense storm occurrence with warmer oceans, increased storm surges, and more intense storms. With the country already facing large-scale migration to the capital city Dhaka, it is evident that a likely scenario with other factors can see a scenario where climate change can be a catalyst for conflicts. •

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Shore up your defences

It is time to strengthen ties with the health sector with climate services.

Farah Anzum

he invisible, deceptive and ruinous enemy of COVID-19 has left the global human race strangled in misery, agony and uncertainty. The helplessness of humankind has again proved weak in front of nature's dictation. This leads us to the burning questions of how prepared we are to tackle natural threats, especially in developing countries where inequality is mountainous, basic services are scarce and national administrations are cumbersome.

Worldwide, the health system is massively strained by the COVID-19 pandemic. According to WHO Director-General Tedros Adhanom Ghebreyesus, "COVID-19 is revealing how fragile many of the world's health systems and services are, forcing countries to make difficult choices on how to best meet the needs of their people." In a country like Bangladesh, where 1,115 people reside per sq. km, the health measures need to be extra robust to contain any disaster. According to the Directorate of Health. there are only 29 ICU beds with ventilators, which is a must for the serious COVID-19 patients. Presently, 10 healthcare facilities are conducting tests and seven of them are in the capital city; raising a big question for the remaining 14 crore population of this country. The same situation can be also observed in terms of PPE for the doctors or nurses, unavailability of the testing kits, un-reported patients or lack of proper guidance at national level. All these inefficiencies can push Bangladesh to an inevitable disaster like the probable unprecedented consequence of climate change, leaving us with very few options.

Both of them call for a global-to-local response and long-term thinking; guided by science and need to protect the most vulnerable among us; and all require the political will to make fundamental changes when faced with existential risks. The COVID-19 pandemic may also lead us to a deeper understanding of the ties that bind us all on a global scale and could help us get to grips with the largest public health threat of the century, the climate crisis.

Ebola Outbreak and Climate Variability

Some scientists think that climate change, with its increase in sudden and



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It can also be stated that extreme weather patterns can influence the health sector in a circular pattern

extreme weather events, played a role in Ebola outbreaks. The dry seasons followed by heavy rainfalls that produce an abundance of fruit have coincided with outbreaks. When fruit is plentiful, bats (the suspected carriers of the recent Ebola outbreak) and apes may gather together to eat, providing opportunities for the disease to jump between species. Humans can contract the disease by eating or handling an infected animal (Cho, 2014).

Malaria and Climate Variability

According to the latest World Malaria report of 2019, there were 228 million cases of malaria in 2018. According to the IPCC, climate change will be associated with longer transmission seasons for malaria. As temperatures warm,

the *Plasmodium* parasite in the mosquito that causes malaria reproduces faster and the vector, i.e. the mosquito, takes blood meals more often. Rain and humidity also provide favorable conditions for the mosquitoes to survive (Cho. 2014).

Dengue Fever and Climate Variability

Dengue fever infects about 400 million people each year, and is one of the primary causes of illness and death in the tropics and subtropics. The IPCC projects that the rise in temperatures along with projected increases in population could put 5 to 6 billion people at risk of this fever in the 2080s because the reproductive, survival and biting rates of the *Aedes aegypti* mosquitoes are strongly influenced by temperature, precipitation and humidity (Cho, 2014).

It can be also stated that extreme weather patterns can influence the health sector in a circular pattern. On one hand, it is worsening the yield of crops and leading to food security problems, exacerbating malnutrition. On the other hand, economic loss is restricting people's ability to access healthcare facilities. Additionally, frequent natural disasters are worsening the situation to a higher magnitude. More than 70 major medical groups in the U.S. released a call to action in June 2019 declaring climate change "a true public health emergency."

Henceforth, considering the global health crisis and potential risks from climatic phenomenon, the time is ticking

for a consolidated approach; under the umbrella of climate services. Climate services aim to strengthen the linkages among the various stakeholders of climate-sensitive sectors with accurate and efficient climate information to make informed decisions. As Bangladesh is at the forefront of climatic risks along with what is seen as an inefficient health sector globally, climate services have the potential to widen the window for the wider population to protect themselves from various climate induced diseases. As the mandated entity, Bangladesh Meteorological Department (BMD) should be more accessible and linked with the various healthcare sectors and research institutes of Bangladesh to analyse and formulate acute information. Regular weather updates should be provided to the health organizations to take effective measures. A national forum can be formed by consolidating health and climate experts and practitioners to spread the information among a wider population. However, the private sector should be also encouraged to participate in the process by offering various incentives to contribute in developing an efficient health system in Bangladesh, along with adapting climate services at different tiers of the sector.

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Knowledge disseminate meeting with local community people at Koyra Upazila.

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Shine a (green) light

How to build capacity and make the local communities aware of their 'climatic' responsibility

Md Hafizur Rahman

at ICCCAD, I have had the opportunities to talk with the local community people about climate responsibilities. In one recent study I was involved with, I realized that there are some "climate responsibility indicators" needed to build capacity and awareness for a better understanding in any local community.

The objective of the study is to build capacity and to make sure the local community is aware of the Climatic responsibility and to disseminate this knowledge to the local community. The research was conducted in six different coastal unions namely Gorai Khali, Amadi, Nishan Bira, Geo-Dhara, Gadaipur, and Koyra in Khulna Division. Communities in this region are continuously struggling with Sea Level Rise and the consequent threats from coastal flooding and saline intrusion into aquifers.

People have lost their lives, land and their livelihoods, but they are still fighting these challenges and have shown high adaptive capacity.

In each union one meeting was conducted where important local stakeholders consisting of UP Chairman, UP Secretary, Teachers, local farmers, etc. were engaged. From these consultation meetings it was identified that people in these regions were not aware of pre and post climatic activities and what actions they should take during these events. With the introduction of Government and non-government organisations interventions, local communities are recognising the need to seek shelter during disasters in designated cyclone shelters with their important documents, reserved food, water, domestic animals, elderly members of family and their

Usually after climatic hazards, people have a high demand for drinking water and food for prolonged periods, as saline water intrusion in the fresh

water reserves disrupts water supply. In the areas some of the local Government mentioned that with Government funding, they were able to develop drinking water stations, water reservation ponds, and have distributed some water tanks into these communities. However, due to lack of care, it has been destroyed. After the water stations were built it was the communities responsibility to take care and repair these but the community failed to do so, adding to their plight.

It has also come to my attention that some of the local government members were not aware of their climate responsibility when asked how they are taking up the responsibility to build awareness of their community. Some of the local government officials skipped the topic and some directly mentioned that they were not interested. If there was scope to arrange external funds for them then they will think about that. Someone mentioned that without permission of the local government they could not work in this field.



Some of the local government members were not aware of their climate responsibility when asked how they are taking up the responsibility to build awareness in their communities

At the coastal community level, there are several different Government agencies, NGOs, INGOs, and academic Institutions working on issues to help the community people improve their understanding of climate change, disaster risk reduction, better livelihoods, and climate resilience capacity. It was shocking when I realised that the local communities lack knowledge on their climate responsibilities.

If we want to build their capacity and knowledge, it is imperative that we work with them for a longer period of time. We require more effective training, consultation workshops, meetings, focus group discussions, and other participatory tools to improve the community's awareness, and to create a sense of individual responsibility for pre-disaster and post-disaster preparedness activity. Engaging local communities with easy to understand resources such as posters, illustrations, and documentaries will help to reduce their lack of knowledge and build their awareness on climate responsibilities for easy understanding.

As individuals, researchers working in the climate change arena, have to make the conscious effort to work and to build local vulnerable communities knowledge on implications of climate change, we have to build their capacities to be better equipped to challenges and disasters induced by climate change. •

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Coronavirus pandemic: We are still not doing it the right way

Istiakh Ahmed

OVID-19/novel Coronavirus pandemic, something that this generation has never experienced, has taken the world like a storm. This chain of infection, which started in China in December 2019, now has spread to over 180 countries infecting more than 1.4 million people. However, this pandemic has brought light to one issue, the world was not prepared for any situation like this at all.

houses. This has been the main point of discussion for the last few weeks and social media was busy understanding why people are not behaving properly and risking their own life?

Many social scientists have explained that the social and cultural norms often influence individual behaviour and an individual only can react to what he or she can visualize. For instance, during Sidr many people at the coastal belt did not evacuate even after getting the warning in time. In a research on social

uncle's house as an extra measure and thought that would be enough. But when the first tidal surge hit the house, we realized that this something we have never seen in our life. In a minute, it washed away everything and we lost our mother". said one respondent.

In addition, Religion, social belief and individual perceptions plays a significant role in shaping one's behaviour. Beliefs such as 'This is God's punishment for our sinful activities. He is deciding who dies or lives and only him but no one else

struggling to imagine the situation until the community is already severely affected. Before that, life seems normal to which human instinct is influencing to act like a normal situation. Human instinct depends on their own previous experience and that is why many could not imagine how normal daily life can be destructive in many ways.

Having no such experience, people started to have personal interpretation and solution of the disease. For example, last week one grocery shopkeeper was explaining to me how he made a syrup with different herbs that he believes if we wash our hands with it and then drink one drop from that every day, will cure Coronavirus. This confidence is based on his 10 years of experience with herbs and none of my scientific explanations was valid to him. Religious interpretation adds another layer to these beliefs and influences how each individual will act. Currently social media also plays a huge role in shaping social behaviour where all these get a separate narrative to create a public discourse.

However, in any type of preparedness, much work gets invested in economic analysis and technical aspects of the problem and little effort directed to understand social and cultural obstacles and opportunities. Understanding the social norms should be a mandatory part of any preparedness programme if we want people to act on it. This Coronavirus pandemic is a reminder for the world on how unprepared we are for



Having no vaccine or treatment available for this virus, this crisis completely depends on people's social behaviour to stop the pandemic. Nevertheless, in most countries, the government has struggled to control the spread of infection where a mismatch between the authoritative instructions and public response has been noticed.

Being not so different, in Bangladesh, thousands of people gathered to pray to stop the spread of the virus while social distancing was the first prerequisite condition, staying home has been proved lifesaving; many people are roaming around only with curiosity to see what is happening out there. Law enforcement needed to keep people inside their houses while it was supposed to be people willingly staying in their behaviour, we tried to explore what influences people's decision to evacuate or not during the cyclone Sidr. Among many other responses, a significant number of respondents mentioned that they could not assess the destruction Sidr would cause, as they never have experienced anything like this. The warning explained it as the signal "10" which is the highest-level warning, but many could not imagine what that meant? How severe could that be? How destructive that could be?

"When they (volunteers) were announcing on the loudspeaker and asking everyone to evacuate, I was thinking that I have seen many cyclones and survived at my house, how big this would be!!! I was at the harbour when they were announcing. Later I took my family to my



In any type of preparedness, much work gets invested in economic analysis and technical aspects of the problem and little effort is directed to understand social and cultural obstacles and opportunities

can save you' often creates misinterpretation and pushes people to depend only on fate. One respondent stated,

"No one can save us but Allah. The NGOs [non-governmental organizations] cannot do anything. If Allah does not want you to survive, all your efforts will be in vain and you will die".

Similarly, with the Coronavirus pandemic, in most countries people are

this type of crisis and unfortunately, with changing climate, there will be more disasters like this. To be better prepared for that, studying society and social behaviour is crucial. •

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Saturday, April 25, 2020

Life lessons from Jhorna, on the importance of

alternative livelihood

Multiple working options for vulnerable communities can be a window of success

Mahmuda Mity

angladesh is frequently cited as one of the most climate-vulnerable countries in the world due to its geographical location (Ayers 2009). Moreover, the country is highly disaster-prone with frequent incidences of cyclones, tidal surges, floods, riverbank and soil erosions, salinity intrusions and others because of its very flat topography and low land above sea level (Akter 2009). People have learned to adapt to risks over time as disasters have been a regular phenomenon for Bangladesh for a long time. However, the poor with limited capacity to cope with the changing environment suffer most due to frequent exposure to these disasters. In addition to the disaster-prone regions, the community who depends on natural resources are more vulnerable than others. For example, increasing salinity or long-lasting water logging destroys crops and soil fertility causes threat to livelihood and biodiversity.

In the coastal areas of southern Bangladesh, salinity has increased from the last few years and has made the area difficult to grow crops historically irrigated by fresh water. Especially after cyclone Aila, most of the coastal areas were inundated by saline water and local people faced huge losses of their livestock and assets. Like other vulnerable people, Jhorna's family became helpless after losing all their crops and fishes.

Jhorna is a woman who lives in Shyamnagar Upazila, under the district of Satkhira of Khulna Division. She is an example of a successful woman who saved her family from the financial crisis by doing multiple works. Though her family's main occupation was crop farming, she is now raising hens, ducks, goats, and cows in her house. Moreover, she is farming freshwater fish in her pond which was unusable after cyclone Aila. She is also involved with soft crab farming which contributes to a big portion of her family's income. She is also involved with selling seasonal fruits as an additional income source.

According to her (back in Sep 2019), 'Involving with only one income genera-

tion activity can make people more vulnerable than others who are involved with multiple works. If one activity becomes hampered during disaster then the rest of the activities can be useful to survive well.'

When Jhorna first got married, she

was dependent on her husband. She was not allowed to go anywhere without being accompanied by a family member. However, back in 2007, just after cyclone Sidr, she was trained by Practical Action on agriculture cultivation and started growing vegetables in her house. During cyclone Aila, all of Jhorna's families and her neighbour's crops and vegetables died due to excessive saline water. That time Jhorna had to go outside to collect water and relief. Jhorna's family had suffered for over a year since the cyclone Aila had hit, but its aftermath helped her to become an independent woman. As her family couldn't continue the agricultural work due to excessive salinity, her husband had started to work as day labour and she started to attend several training sessions on alternative livelihood practice offered by different NGOs namely Shushilon, Practical Action, Oxfam, Gono Mukhi and others. Because she realized the importance of training sessions from her previous training experience which she gained from Practical Action. Through these training sessions, she learned how to grow rice; fish and vegetables in saline areas; which kinds of beds would be good to; use for planting vegetable; how to plant seeds in beds and sacks; how to make organic fertilizer and pesticide; which fertilizers to use in each season; which crops to harvest; which repellent to use for insects: and how to increase the crop production. She also learned how to keep her poultry healthy by using more nutritious food rather than medicine. Then she started getting involved with multiple income-generating activities by staying at home. Her knowledge acquired from various training had helped her to become capable of successfully growing vegetables and other plants in saline soil. Now her family is also adopting these techniques to produce saline tolerant rice seeds.



Like Jhorna, most of the people from southern Bangladesh are practising soft-crab farming as it is becoming a profitable livelihood opportunity in the excessive saline areas.

Now Jhorna has started to earn more than her husband and has gained decision making power in her household through her economic empowerment. Her husband respects her advice and opinions, he looks up to her and consults with her. Now no one stops her to go anywhere or to do anything. Day by day, her confidence has increased now she not only raises livestock and poultry but for the last one year she has started raising pigeons.

She is a member of the managing committee of a primary school. She learned a lot at different meetings and that is how she increased her self-confidence. Now she can raise her voice without any fear. Everybody listens to her, including government members. That's why she's become more interested in working with the local government. She goes to a monthly meeting at the Village Development Committee where they discuss all the problems of the village, write them down, and hand them over to the chairman or members of the local government.

Her father-in-law is now her biggest support. When she has to attend a meeting, her father-in-law helps out with housework. According to her father-in-law, 'My daughter-in-law has gone to work for the good of my family, and if I

do not support her a little, she will not be able to improve her life. Although I used to be very angry with her going outside at the beginning, I now understand that she learns a lot from these meetings, that are helping to solve our financial problems'.

In the future, she dreams that her three daughters will be highly educated. She believes that none can develop their life without education. She also wants to train her neighbours and wants to start a large poultry farm with hens, ducks and pigeons. Besides, she has a plan to increase her soft crab farming work.

Jhorna's Story reiterates the never-ending perseverance and aspirations of our rural women who have used their knowledge gained to become empowered. These independent individuals are contributing to helping their families and communities break free of their vulnerabilities to climate change. However, more training with future adaptation plans can be useful to minimize the vulnerability to both disaster and climate change. •

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Impermissible; A glimpse of Banishanta Island.

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Impact of climate change on sex workers

Tales from Banishanta

Nafis Fuad

he state-licensed brothel of Banishanta is a rickety village of sagging sheds built on the banks of River Pashur in Mongla, the country's second-largest seaport. This brothel is a privately-owned stretch of land which is barely one square kilometre and is only reachable via a boat through the river. The brothel sheds are homogeneous in layout, arranged out in rows, and the facade is opened to the river for displaying the sex workers and for making deals with the clients. Spectators, who are passing along the village, point it out to others, not for its beauty but its lure and seduction. Banishanta is inhabited mostly by women, around 150 female sex workers live here, most of them do not have any sort of existential identity. They are unregistered at birth and possess no passport or document with which to identify them and so officially these female groups do not exist.

"Moushumi", one of the sex workers shared a fact that it is nearly impossible for them to leave the island in search of a better life after they complete their

terms as enslaved sex-workers and their only solace is to retreat into their imaginary world. The women either live alone or with partners but are bound to landladies (locally called Madame). Their children used to stay with them and hardly attend school as there is no provision of any educational institution at present. Previously there was a school which was run by an NGO, but it closed down a long time ago. They face all kinds of atrocities from clients, landladies and the police, who come every evening from Dacop police station for 'protection money'. However, they face a bigger problem, which is the threat of the rising water level.

They believe themselves as sad destined women who are both shunned by society and ruined by the rapid change in the climate. The hostile behavior of the climate has been creating severe intimidations of displacement for the sex workers. Every day its muddy shoreline crumbles like stale bread into the fast-running current of the Pashur River, which, at high tide, threatens to tumble over the embankment. Tidal data from Mongla port, Hiron point, and Khulna depicts that the average sea-level rise due to cli-

mate change in that region is in the range of 6-8 millimetres per year, with the water level during high tide rising even more rapidly. The rising level of saline water has also created an enormous threat to the livelihood of the island.

Nevertheless, Banishanta is fighting against the impacts of climate change just like the other twenty-eight coastal districts of Bangladesh. According to the residents, the frontal erosion of Banishanta has taken away close to a hundred-meter buffer of land that once was a part of the village. As the saline water encroaches into arable land, rendering it uncultivable, the land has been converted into a shrimp culture farm. This sort of destruction, erosion and loss of arable land due to aquaculture is creating a new pattern of displacement in the coastal areas and stimulating an explosion of hasty, chaotic urbanization.

The country, already struggling with various predicaments, now faces another distressing migration problem as thousands of people must make an impossible choice between scruffy coastlines and urban slums. With people choosing to move to other places for better livelihoods, how do the residents

of Banishanta fare? As these women are enslaved to their Madams with nowhere else to go, society rejecting them for their livelihood 'choices', what is in store for them if this small village is ravaged by a cyclone or tidal surge?

The brothel has a bitter history of being tattered by several cyclones like Sidr and Aila which caused the deaths of many sex workers and for those who survived they wandered to neighbouring villages (looking for support). In recent years, Cyclone Bulbul hit the island increasing the suffering and torment of these people and eventually a major portion of the island had eroded into the river Pashur. The outcomes of this problem continue to emerge and this issue demands a national and global level legal convention. Though climate policies and climate-resilient development are discussed at both the global and national levels, the vulnerable communities such as the residents of Banishanta are often overlooked, therefore a more holistic approach is needed. •

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Covid-19: Climate and socio-economic justice

How Covid-19 national response measures have promoted social-economic injustices in a changing climate

Sherpard Zvigadza and Irene Upadhya

ew, or novel, coronavirus, now called the Covid-19 virus, had not been detected before the outbreak that was reported in Wuhan, China, in December 2019. As of January, 27, 2020, human-to-human transmission was confirmed largely in Wuhan, but also in some other places in China and internationally. On March 11, the WHO Director-General, Tedros Adhanom Ghebreyesus declared Covid-19 as a global pandemic likely to affect all sectors and individuals.

Lock-down

As the virus began spreading quickly around the world, it ravaged Europe and other countries and the number of cases continued to soar the concern by WHO was that it has called on "all countries to continue efforts that have been effective in limiting the number of cases and slowing the spread of the virus." Soon after, the global conversation revolved around lockdowns imposed in various countries. The basic rationale for a lockdown is to reduce the spread and this can be observed through flattening the curve of this new infections. While "lockdown" isn't a technical term used by public-health officials, it can refer to anything from mandatory geographic quarantines to non-mandatory recommendations to stay at home, closures of certain types of businesses, or bans on events and gatherings. Within the package of lock-down, there has been a call for social distancing, which prevents people from being closer to each other with a distance of one to two meters.

Covid-19 and Socio-economic Justice

Similar to climate change, this pandemic is affecting the poor and vulnerable populations most. They include, urban and rural vulnerable and poor communities, mostly affected by Climate Change, day labour workers, who live on a daily wage, who have been asked not to come to work. Migrant workers returning home also pose a threat to small towns and villages. Some of the

sectors affected by climate change include, Agriculture, Water, Tourism, just to mention a few. Social distancing as a result of Covid-19 has prevented such groups from working even when they need to for their livelihoods. A French official has recently said that "avoiding crowded places, meeting places or close contact with groups or other people" is part of social distancing. While the WHO emphasized on "physical distancing" rather than "social distancing", it is still a near impossible feat for people living in poor communities as their living conditions simply do not allow them to form the advised distances. A few key examples, just to mention a few, relating to communities affected by climate Change can be mentioned here.

Agriculture

Adaptation activities in low income communities are often done communally. It simply means no community Adaptation and Resilience planning meetings or tools can no longer be shared from one person to another as they take turns in using agricultural tools.

Water

Unfortunately, climate change has brought another unprecedented challenge to water access. Whilst the 20 second hand-washing rule with soap is noble, availability of and access to water, is another challenge. Many communities in Asia and Africa have been having water availability challenges as a result of low rainfall patterns. Bringing home water is a huge accomplishment as finding water sources require walking for long distances.

Social

Social distancing requires community members to be far apart from each other, that is, a minimum 2 meters. Women in the village clean their containers together before filling it up with fresh water. In Africa, women walk in groups, and laugh whilst touching each other's shoulders, as they discuss what is happening in their families and communities.

Governments can be challenged this time to think about how water can reach the poor. In some urban ar-



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eas, the availability of water depends on one's ability to pay for it, or having a good rainfall season. For a while this has been a challenge. Some mountain communities in India live in fear as their living conditions do not allow maintaining a distance of 2 meters. People belonging to these communities line up in order to fetch water for daily use. The current measures suggested by the government has left them living in fear as the lines would run through narrow streets where maintaining a two meter distance is near impossible.

Community based tourism businesses

In Nepal, the effects of climate change have posed a threat to tourism which is a primary source of livelihood in the mountain community of Nepal. The Nepali government had declared 2020 as the year of "tourism" with the hopes of attracting 2 million tourists, however, in March, due to the rapid increase in Covid-19 cases being reported from Europe and China, the tourism campaign was suspended and borders were closed in order to protect the Nepali rural and urban based citizens. Many small and medium Enterprise tourism businesses had spent a good part of their fortune in advance as preparatory measures for the tourists that would arrive during peak season. These communities have now been left at a loss due to the loss of revenue and have reverted to menial labour in order to feed their families.

Climate solutions for the poor

While rich nations clearly crafted well-thought-out strategies that include financial bail-outs, to assist their citizen's welfare during lockdown, developing countries have not been able to do so due to unavailability of financial resources. A few countries with the exception of South Africa have come up with a clear social distancing strategy, that takes cognisance of the poor and vulnerable, women and children in the urban and rural settings.

The WHO Chief mentioned that as governments respond to the Covid 19,

they must ensure that the poor and vulnerable poor people's livelihoods would not be affected. It is interesting that, in Africa, Zimbabwe, though it came as an after-thought, a few days after Lockdown, the president pronounced a policy where the Police were asked to stop seizing and burning the farmers' produce. In his following speech, the President of Zimbabwe, considered the climate vulnerable and poor communities, by mentioning that, all agricultural activities were to remain undisturbed throughout the lockdown and that producers were to continue to feed the nation. He also mentioned that "... field teams working on projects meant to climate proof our agriculture, and towards impending harvests must be facilitated". While this seemed clear, it in terms of how the communities must interact, it assumes, these can interact unhindered. South Africa's strategy clearly considered the poor and vulnerable especially the homeless.

Whilst big corporations and businesses will get bailed out or make insurance claims, the poor communities, which are already vulnerable to the effects of climate change, do not have access to such facilities, including proper healthcare or the resources necessary to deal with this pandemic. The physical distancing, as part of the social distancing under the lockdowns, have caused indescribable effect to the social and economic lives of the poor men, women and youths in many urban and rural areas who have always been on the receiving end of climate change impacts within their sectors. This double edged injustice needs to be addressed from now, going forward and there is still an opportunity to still do so. •

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Life and liveability

The value of an interdisciplinary approach and mixed samples

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s a preliminary idea, what do you think livability is? You may say each and every thing that makes your living easier. Mongla and Noapara were the two study areas for one of ICCCAD's recent projects intending to find out what livability means to the inhabitants of these two towns.

The study was conducted by the International Centre for Climate Change and Development (ICCCAD), Bangladesh; the Institute for Hazard, Risk and Resilience (IHRR), Durham University, UK; the South African Research Chair in Spatial Analysis and City Planning (SA&CP), University of Witwatersrand, South Africa and it was funded by the Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods (SHLC)'s Capacity Development Acceleration Fund and Glasgow University. SHLC is funded via UK Research and Innovation, and administered through the Economic and Social research Council, as part of the UK government's Global Research Fund. The study was conducted in October and November of 2019.

The research sought to contribute to understandings around the concept of liveability in the context of secondary cities which are expected to experience considerable urbanisation in the coming years. Similar to the global trend, urbanisation in Bangladesh is also rising and by the year 2030 nearly 46% of the total population is expected to live in the cities. One of the central motivations of the study was to understand why the two selected regional cities were attractive to existing residents and how they could become more 'liveable'. We emphasized people's context and their perspectives: could they continue to live in this city or not in the face of future challenges such as climate change? Did they think their children could live in the city in the future with a balanced, sustainable, 'liveable' life?

The project team intended to capture residents' views and personal experiences as regards to eight different aspects of liveability: livelihoods and food security, utilities and transport, health and natural environment, education, housing, central and local government,



Boats and ferries are used by many in Noapara for daily commutes to and from surrounding areas.

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safety and security and, lastly, social and leisure. To this end, we used multiple research methods: we conducted questionnaire surveys, semi-structured key informant interviews, focus group discussions, storytelling workshops and

To capture a wide range of perspectives on the basis of socioeconomic clusters, we interviewed lower and middle class people in both cities. Locals varied in how they prioritised these different factors as making their city liveable. Having multiple research tools and sources of information served to triangulate our findings and provided a more detailed view of each city from multiple perspectives.

Throughout our fieldwork and subsequent analysis of the collected data we acquired interesting information. For example: Prior to starting the study, we assumed that locals would prioritise livelihood and food security, but most people were more concerned about other components like utilities or places for social gathering. Some said they were not satisfied with their current jobs and wanted to shift to different kinds of work.

Food security was an issue. In both cities, over 29% of low-income residents spent over 50% of their monthly income on food. Through the use of other research tools, this information became more nuanced. Most of the people are not involved in agriculture and food-stuffs were brought from outside of the

area. We also observed that the pay in industry positions was considered low by residents and discouraged some locals from seeking employment in this sector.

Working with officials and locals, middle class and lower income residents, discussing a range of concerns that might fall under the concept of liveability and using a variety of research tools all helped to surface and explore differences in opinion on the perceived liveability of each city. For example, in the storytelling workshop in Noapara, participants expressed that they face problems regarding 'eve-teasing' and women feeling safe in public spaces. However, according to the questionnaire survey, Noapara locals said they felt safe at night. Our research tools were able to accommodate the ideas of different people, enabled us to gather greater detail of information and to crosscheck local opinions on important issues.

Conversely to uncovering differences in perspectives, many people expressed similar experiences and opinions on key issues. On the subject of fresh water, a person from Mongla said, "If we had fresh water, we wouldn't have any issues to complain about", which was echoed by almost all the interviewees. In Noapara one resident's optimistic opinion was similarly echoed by all the locals involved in our research: "Noapara will be way better in ten years".

Our other key finding was insights into how these cities attract people

from all-over the country. We spoke to a number of people in each city who had moved there from other places. Mongla has work opportunities as a port and EPZ area. Noapara is attractive for business which in turn attracts others to come and work in those businesses.

Our mixed sample group and a variety of interdisciplinary research tools enabled us to develop a detailed, nuanced sense of how locals find Mongla and Noapara to be liveable or not. These findings are useful in thinking through how these cities might support their existing residents and expanding urban populations in the future.

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