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Nature is taking colossal frame as the shape of heat waves

Sadia Ismail Mim

Source: The UNN

Heat wave is one of the most exasperating and disturbing phenomenon around the world, particularly it is taking the deadliest frame in South Asian regions. This year 2024 warm waves are breaking all the records of past outperforming the temperature 40 degrees Celsius remaining for over a month in those specific locales. The passing toll has been raised due to warm stroke in Philippines', Bangladesh, India, Pakistan.

A heat wave is a delayed unusually tall temperature, more than typical greatest temperature that happens amid the summer season in a specific locale of a country.

Generally heat waves are caused for *moodampness* ,catching warm discuss and anticipating

cooler discuss from moving in. This marvel has presently been quickened by climate alter, deforestation, outflow of green house gasses for mechanical movement. For a few past few a long time the south Asian locale has been persistently stricken by warm waves since of the deficiently sum of forestland.

Based on the Bangladesh Meteorological Division (BMD) information source dated 21 April 2024, extreme to exceptionally extreme, warm wave was clearing a few locale of the nation and mild-moderate warm wave was clearing over most of the areas of the nation. BDRCS figure observing report demonstrates most extreme temperatures surpassing to 38 degree Celsius, with the warm file outperforming 38 for two or more up and coming days.. On 24 April 2024, extreme warm wave (>=40 degree Celsius) was watched in the locale of Rajshahi, Pabna, Khulna, Bagerhat, Jeshore and Patuakhali. On 26 April 2024, Bangladesh set all-time heatwave record as the Meteorological Office recorded 24 days of heatwave amid the month of April breaching past 23 days of heatwave in 2019. Agreeing to BMD dated on 27 April 2024, extreme to exceptionally serious heatwave (>=40 degree Celsius) has been watched in the locale of Rajshahi, Pabna, Chuadanga, Natore, Chapai Nawabganj, Kushtia, Jhenaidah, Jashore, Meherpur and Bogura. Direct warm wave (>38-39.9 degree Celsius) is clearing over the area of Bagerhat, Satkhira, Barguna, Barishal, Patuakhali, Jhalokathi, Bhola, Pirojpur, Sherpur, Mymensingh, Sirajganj, Tangail, Jamalpur, Thakurgaon, Joypurhat, Panchagarh, Lalmonirhat, Faridpur, Madaripur, Magura, Manikganj, Rajbari, Gazipur, Gopalganj, Nilphamari, Rangpur, Naogaon, Gaibandha and it may spread. Concurring to the watched heatwave, most affected divisions are Rajshahi, Khulna, Rangpur, Dhaka and Barisal ... Concurring to Directorate Common of Wellbeing Administrations (DGHS) as of 30 April, a add up to of 10 individuals passed on of suspected warm stroke in distinctive parts of Bangladesh. As the heatwave has been clearing over the nation, the government of Bangladesh pronounced closing of schools and colleges for one week up to 27 April and constrained 33 million children out of schools in

Source: My City Links

Source: Unsplash

Bangladesh. Agreeing to every day Daily paper Prothom Alo, around 70 rate of add up to Bangladesh populace are affected due to heatwave especially individuals living in Khulna, Rajshahi, Rangpur, Dhaka and Barisal division for a few days, causing critical hardship, especially the individuals who are working exterior in sun. (IFRC, 4 May 2024)

In the Philippines, the analysts analyzed a 15-day period of warm at the conclusion of April. In spite of the fact that this is as a rule the most sultry time of year for the archipelago, the analysts found that an occasion of this greatness would not have happened without the impact of climate change—which made this specific warm wave 1.2 degrees C more smoking. There was moreover a discernable affect from this year, which included another 0.2 degree C.The Government of phillipines has announced to near the schools down for this dangerous warm waves for 1 week. Numerous Understudies felt tipsiness and moreover swooned whereas doing their classes. On 29 april Benjo Basas,the chairperson of Teachers' Nobility Coaliton said "We as of now have reports of Tall blood weight and discombobulation and swooning for understudies and instructors in the past days."

A submerged city is visible due to excessive heat exposure in philippines.

The country's Climate Office said the warm Index -the genuine temperature felt by the body to incorporate relative humidity-is anticipated to stay at a record 45 degree Celsius ,in the extend which it classes as "dangerous" as conditions can trigger heatstroke from drawn out presentation to heat.

Scientists are saying that the hear wave is getting worse day by say in the Philippines and other parts of the world for human initiated climate change.

The circumstance is alarming in Gaza strip for warm waves. Almost 1.4 millions of individuals are uprooted from Gaza strip due to the dangers of airstrike of IDF.Over 36000 are murdered in this Israel-Palestine struggle begun from October

7th.People are taking shield in Rafah passage having no benefits of power, drinking water and sufficient sum of Food.Famine has as of now happened in Gaza.People are starvng to passing and this warm wave in Palestine presently has included to their sufferings.People are as of now biting the dust since of lack of healthy sustenance and if this warm wave would tenaciously clearing over Gaza more passings would occur.

Scientists are saying that the west Asia counting Lebanon,Jordan,Syria,Palestine are enduring from warm wave this year .The nations of West asia never confronted this kind of hot climate cause there climate condition is comparative to European countries.But this year the temperature of those countries has risen upto 40-42 degree Celsius breaking all the records of Past.

Amid this war circumstance in Gaza the condition of the outcasts is getting more regrettable day by day.

Scientists announced the cause of this Warm waves in West Asia is too the human initiated Climate alter.

In the south asian locale counting Bangladesh,India,Pakistan,Burma warm waves have been strking for the final few a long time. One of the most noticeable reason for delayed warm waves is evacuating of trees and woodlands in the title of improvement. Particularly in Bangladesh,for street and Interstate developments has caused a enormous sum of evacuating trees each year .

Only 11% forestland stay in Bangladesh now.But Concurring to researchers atleast 25% forestland is fundamental for any nation to keep up environmental balance.uprooting of trees at arbitrary increments the sum of CO2 in the discuss which causes worldwide warming.

The same scenario is for other south Asian countries like India,Pakistan,Burma.Scientists have analyzed that 1.2% of Asian forests are being destroyed annually so the main reason for the heat waves is destroying the forests . Another research said that rapid industrialization has also a great impact in Global warming.They emit C02 in the atmosphere and it causes Greenhouse effect.Thus it increases temperature.

If this unplaaned urbanization and rapid industrialization continues to happen this way in the upcoming year world would face the drastic form

Source: Unsplash

of heat waves.The temperature might surpass 50 degree Celsius in south Asian region and other countries would suffer from heat waves too.

So its high time to restore the forests and plant trees to save the planet from the dangerous frames of heat waves and climate change.Moreover,Planned and eco friendly urbanization also industrialization are also needed to prevent Global warming.If temperature is going to rise in this way many countries will turn into desert soon.

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Blooming Under Pressure:

Extreme Heat Waves and Flowering Patterns of Summer Fruits in Bangladesh

SM Abdullah Al Mamun

Source: Freepik

Bangladesh, known for its lush landscapes and fertile plains, is a country where agriculture thrives, especially during the summer months when a variety of fruits come into season. However, the increasing frequency and intensity of extreme heat waves pose a significant threat to the cultivation of summer fruits and the delicate flowering patterns up-

on which they depend. In this article, we explore the repercussions of extreme heat waves on summer fruits and flowering patterns in Bangladesh.

Effects on Fruit Cultivation:

Summer fruits such as mangoes, jackfruits, lychees, and papayas are not only a staple of the local diet but also an essential source of income for many farmers in Bangladesh. However, extreme heat waves can disrupt the growth and development of these fruits, leading to reduced yields and economic losses. High temperatures during flowering and fruit set stages can cause flower drop, poor fruit development, and sunburn damage to fruits, affecting their quality and marketability.

Source: Freepik

Impact on Flowering Patterns:

The timing and duration of flowering play a crucial role in the successful production of summer fruits. Extreme heat waves can alter the flowering patterns of fruit trees, leading to inconsistencies in fruiting cycles. In some cases, heat stress may induce early flowering, resulting in a mismatch between flowering and pollination, which can negatively impact fruit set and yield. Conversely, prolonged exposure to high temperatures can delay flowering, leading to reduced fruit production and affecting the livelihoods of farmers.

Challenges for Farmers:

For farmers in Bangladesh, coping with the impacts of extreme heat waves on summer fruits presents numerous challenges. Fluctuations in flowering patterns and fruit yields can disrupt planning and management practices, making it difficult for farmers to predict harvest times and market demand. Moreover, the increased incidence of pests and diseases associated with heat stress further compounds the challenges faced by farmers, requiring additional resources for pest control and disease management.

Adaptation Strategies:

To mitigate the impacts of extreme heat waves on summer fruits and flowering patterns, farmers

Source: Freepik

can adopt various adaptation strategies. These may include selecting heat-tolerant fruit varieties, implementing shade netting or mulching to reduce heat stress, and providing supplemental irrigation to maintain soil moisture levels. Additionally, agroforestry practices that promote biodiversity and resilience can help buffer against the impacts of extreme weather events.

Extreme heat waves pose significant challenges to summer fruit cultivation and flowering patterns in Bangladesh, threatening food security, livelihoods, and ecosystems. By understanding the impacts of climate change on agriculture and implementing adaptation measures at the farm and policy levels, Bangladesh can build resilience and ensure the continued prosperity of its fruit industry for future generations.

Government Support and Policy Interventions:
Government support and policy interventions are essential for building resilience in the agricultural sector against the impacts of climate change. Investments in research and development of climate-resilient fruit varieties, extension services, and infrastructure for water management can help farmers adapt to changing climatic conditions. Moreover, policies that promote sustainable agriculture practices, reduce greenhouse gas emissions, and enhance climate resilience are critical for ensuring the long-term viability of fruit cultivation in Bangladesh.

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Source: Freepik

THE ENVIRONMENTAL insecurity conundrum

Muhammad Hamza Chaudhary

Environmental insecurity, as one of the most pressing, complex, and multi-pronged issues of existential importance, has started to broader its canvas. The reciprocity of multiple climate insecurities, that form a never-ending cycle, has started to ring alarms across the world. The lack of understanding in addressing these calamitic insecurities has caused our planet to bleed, while the earth's agony is heard from its distressed echoes.

As the world moves towards the 'climate end-game' and its devastating aftershocks, the looming threat of certain insecurities tighten their grip over our planet. As the world is kept hostage

of these socially-constructed threats, it has started to form a vicious cycle of the interplay between climate, water, food, and resource insecurity.

According to some reports, scientists have warned that earth is on a brink of an irreversible climate catastrophe. The state of climate degradation on earth, has compelled the international community to ponder over their choices. As the era of 'global boiling' has begun, the exacerbation of our existing socio-political fault lines continued to loom over like a ticking time-bomb.

As environmental insecurity has a deeper connection with human and societal security, this correlation helps us in understanding the multifaceted dynamic of this non-traditional security issue. In addition, environmental insecurity inevitably fuels a quake that manifests itself in our dented socio-political fault lines. Therefore, the recontextualization of certain security issues has become a necessity for an effective governing mechanism besides educating the world on its evolving dynamics.

The idea of introducing 'environmental security' to the world, arose from the Copenhagen Security School (CSS), which highlighted this aspect as a key security issue in the world of non-traditional security issues. As the Copenhagen School has an overemphasis on human and societal security, it often views every threat as an issue of national survival. Environmental insecurity, in a recontextualized environment, can address such issues as security concerns rather than limiting them to climate-induced disasters.

The reframed context of environmental insecurity, as an issue of national survival, can adapt to the ever-evolving dynamics that tends to shift with each passing year. The focus on human and societal security will bring individual autonomy, traditional social order, and interdisciplinary approaches into play. As we enter into new environmental dynamics, the dire need for a multilevel governance grows. Environmental governance is a prerequisite towards sustainable climate practices and innovative perspectives.

Source: Pexels

Environmental sovereignty, as closely related to state sovereignty, highlights the dire need of an effective local governing mechanism, sustainable practices, and perseverance of climate justice. The combination of mounting climate insecurities has created a buzz around the world. The devastation and catastrophes marked by climate disasters has caused havoc to run amok the inhabitants of this planet.

Likewise, as mentioned above, the Copenhagen School focuses on institutionalism, global environment governance, and agreements for agenda-setting tables to have an environmental consensus. This showcases a vision for joint effort to solve issues of national, international, and transnational importance.

Environmental conferences, agreements, and treaties have bounded the world to abide by some climate laws but the determinants of each state vary because their dynamics are different. As the entire idea of climate commitment is very procedural and progressive in nature, it will take us another decade to fully realize what lies ahead. The alarms that have been ringing and the distressed voices that echoes during climate insecurities, should remind us of the graves we have dug for our future generations.

The Frankfurt School or the Critical Security School (CSS), has a very pessimistic view on bridging the world on climate security issues. As the Frankfurtian way of viewing non-traditional security issues is to attach them to armed conflicts and national security, this approach lacks practical recommendations and reasonability. The over-emphasis on theory and less on practice, apart from its cynical, hyper-skeptical, fatalistic, and critical nature, showcases that it lacks solution-centric approaches and considers non-traditional security threats, that does not involve military, as a hoax.

Thus, the Frankfurtian way of viewing environmental insecurity is not applicable in a heavily globalized world. The mockery of climate change has been taking place for decades, and with the

Source: Freepik

Source: Pexels

passage of time, it got further demonized. As the weaponization of environmental insecurities is a harsh reality, often done in the pretext of climate security or policies by right-wings, it justifies the pessimism and disillusionment people have started to feel towards it.

Climate Fatalism, as a nail in the coffin of a dying planet, is a belief that human beings are powerless and climate change is inevitable. In contrast with climate deniers, fatalism brings a devastating wave of hopelessness and despair, especially for those who are working their lives out in mitigating the 'doomsday' of climate cataclysm.

The WWI is called "the war to end all wars", but the war with environmental insecurities will end all wars, leaving us with a soulless planet with its last distressed echoes.

To sum up, the need of a collective yet a comprehensive 'plan of action' is already in play. However, the lack of penalties on non-compliance should be fixed, otherwise, all of our efforts will go in vain.

The global community does realize the threats climate insecurities can bring, but the short-termism, cognitive dissonance, climate illiteracy, and non-compliance of states is potentially creating a 'climate apocalypse' for us in a blink of an eye.

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Unwanted Floods in Bangladesh: Causes, Consequences, and Prevention

Mahmud Kamal Anamul Haque

Bangladesh, a South Asian country criss-crossed by numerous rivers, is highly susceptible to floods due to its geographical location and low-lying topography. While seasonal floods are part of the natural cycle and contribute to the fertility of its agricultural land, unwanted floods have become a recurring crisis, bringing widespread destruction and suffering. In recent years, these floods have intensified due to climate change, urbanization, and poor management, warranting urgent attention and action.

History of Unwanted Floods in Bangladesh

The history of floods in Bangladesh is deeply intertwined with its geography and climate. Some of the most devastating floods in recent decades include:

Flood of 1988: This catastrophic flood inundated nearly 60% of the country, displacing millions and causing extensive damage to crops, infrastructure, and livelihoods. It highlighted the vulnerability of the country's flood management systems.

Flood of 1998: One of the worst floods in Bangladesh's history, it lasted for over two months and submerged about two-thirds of the country. The economic losses were estimated at billions of dollars, and recovery took years.

Flood of 2004: Heavy monsoon rains combined with water inflow from upstream rivers caused widespread flooding. Approximately 38% of the country was underwater, affecting millions of people and resulting in severe economic and agricultural losses.

Flood of 2007: Occurring in conjunction with Cyclone Sidr, this flood exacerbated the destruction, leading to loss of lives and significant damage to infrastructure and agriculture.

Floods of 2020 and 2022: These recent floods were triggered by extreme rainfall, both locally and upstream, compounded by climate change. They caused displacement, agricultural loss, and disruption to daily life, underscoring the need for improved flood management and resilience.

Source: Freepik

Causes of Unwanted Floods

Excessive Rainfall: Heavy monsoon rains often overwhelm the river systems of Bangladesh, leading to flash floods and prolonged inundation.

Climate Change: Rising global temperatures have

intensified the frequency and severity of extreme weather events, including unseasonal and excessive rainfall.

River Erosion and Sedimentation: Continuous erosion of riverbanks and sediment deposition

Source: Freepik

reduce the carrying capacity of rivers, causing them to overflow during periods of high discharge.

Deforestation: Unchecked deforestation in upstream regions of neighboring countries like India contributes to soil erosion and increases sediment load in rivers flowing into Bangladesh.

Urbanization: Rapid urban development without adequate drainage systems exacerbates waterlogging in urban areas during heavy rains.

Failure of Infrastructure: Weak embankments, poorly maintained dams, and insufficient flood control mechanisms contribute to the occurrence and severity of floods.

Damage Caused by Unwanted Floods

Human Suffering: Floods displace millions, leading to loss of lives and livelihoods. They disproportionately affect vulnerable communities, including farmers and low-income urban dwellers.

Agricultural Loss: Floodwaters destroy crops, submerge farmland, and disrupt planting cycles, causing food insecurity and economic hardship for farmers.

Infrastructure Damage: Roads, bridges, schools, and hospitals are often damaged or destroyed, hampering recovery efforts and economic activity.

Waterborne Diseases: Stagnant floodwaters create breeding grounds for mosquitoes and other disease vectors, leading to outbreaks of cholera, dengue, and other illnesses.

Economic Impact: The cumulative economic losses from floods are staggering, affecting industries, agriculture, and overall national productivity.

Prevention Measures

Improved River Management:

Regular dredging of rivers to enhance their capacity.

Strengthening and repairing embankments and dams.

Afforestation:

Promoting tree plantation programs in upstream regions to reduce soil erosion.

Increasing mangrove cover along coastal areas to act as natural barriers against storm surges.

Urban Planning:

Developing efficient drainage systems in cities to prevent waterlogging.

Enforcing strict building codes to avoid construction in flood-prone areas.

Source: Freepik

Climate Resilience:
Investing in early warning systems for floods and cyclones.
Promoting adaptive farming techniques, such as flood-resistant crop varieties.

Collaborating with neighboring countries to manage shared river systems and reduce upstream impacts.
Participating in global climate initiatives to mitigate the effects of climate change.
Community Awareness and Preparedness:
Conducting training programs on flood preparedness and response.
Ensuring accessible shelters and relief supplies in flood-prone regions.

Recent Efforts and Challenges
The government of Bangladesh, along with international organizations, has implemented several projects to mitigate the impacts of floods. These include the construction of flood control structures, implementation of community-based flood management programs, and initiatives to enhance climate resilience. However, challenges remain in terms of funding, coordination, and addressing the root causes of floods.

Unwanted floods in Bangladesh are a complex issue that requires a multifaceted approach for mitigation. Addressing the root causes, such as climate change and poor infrastructure, while empowering communities with knowledge and resources, is crucial. With effective planning, sustainable practices, and international collaboration, the devastating impacts of floods can be significantly reduced, ensuring a safer future for the millions living in this vulnerable region.

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Struggles of Hill Tracts Women due to Climate Change

Ariful Islam & Misu Akter

Source: Freepik

The Chittagong Hill Tracts is about one-tenth of the area of Bangladesh. It is made up of three districts namely Khagrachhari, Rangamati, and Bandarban. A total of about 1 million women are living in these three hill areas. Although people of all communities live in the Chittagong Hill Tracts, the number of aborigines (Marma, Tripura, Chakma, Garo, Sawtelle, Mug, Orao, Munda, Paharia, Khashia, etc.) are more than 52% of the total population.

Most of them have a culture of matriarchal society, so women must carry all the responsibilities of the family. Due to this, these women are directly and indirectly involved in various types of social activities including economic aspects. Three-quarters of the women in the Aborigine communi-

ty take up agricultural work and animal keeping as their occupations. Most of the indigenous women who usually live in hilly areas are illiterate, which is why they participate in crop production very efficiently. These indigenous women are not only involved in agricultural work but also in animal observance in the fields and hills. They also do all the household work of their family. Since women complete their daily tasks in direct harmony with nature, and they are directly dependent on natural resources for their work. They are one of the main victims of climate change.

"There is only one difference between me and the cow- the cow stays in the forest all day, wandering in the field to fill her stomach and I work all day in the forest, working in the field to feed the family member's stomach. I spend six months a year as a farmer in the field and six months as a herdsman in the forest. This is my life, I was born a woman, I must fight and live"- Rimchai Marma, a hill tracks woman was saying this to us.

It is seen that all the women groups in the hilly areas, i.e., the women of both the aborigines and Bengali communities, collect their fuel, grow crops, irrigate, raise and feed the animals, collect water, and meet various daily needs depending on the natural resources. In the hilly areas, the supply of water, cooking gas, ready-to-eat food, and other necessities of life, such as in cities, is almost unavailable. But at present climate change is hampering their daily life activities. The environment of the hilly regions is being exploited on a mass scale in the name of modernized civilization. Various types of natural and man-made disasters are gradually appearing in hill tract areas. In addition, these women have to deal with various natural disasters caused by climate change. The women of the hilly areas prefer

Source: Freepik

Source: Freepik

the small hilly rivers as their source of drinking water. Due to climate change the rivers are waterless most of the time in the year and during the rainy days the rivers contain dirty water. These waters can't be used for drinking purposes and neither for WASH.

Women in these areas often have limited access to resources like education, healthcare, and economic opportunities. Climate change can exacerbate these challenges, making it even harder for them to adapt and recover from its impacts. It can affect water availability and agricultural productivity in hill tracts, which can impact women's ability to provide food and water for their families. Women are often responsible for household food security, and disruptions in these areas can disproportionately affect their well-being.

Changes in climate can be a cause of spreading diseases, as well as affect water quality in the hilly areas. This can lead to huge loss of livelihoods, such as farming and other agricultural activities. In that case, women must take on extra tasks to support their families. That might be leading to an extended workload and create nega-

tive impacts on their physical and mental health. Climate change can have effects, on these regions impacting aspects of the environment and the people who reside there particularly women. Let's talk about some health consequences of climate change on hill tract women.

Source: Freepik

As temperatures rise heatwaves are becoming more frequent and intense. Hill tract communities, those involved in tasks like farming and gathering may face heightened heat stress. Women, who often have roles in these activities might bear a burden due, to their traditional responsibilities and clothing norms that could restrict their ability to adapt to higher temperatures. One of the effects is changes in temperature and precipitation patterns, which can influence the distribution of disease carrying vectors like mosquitoes and ticks. As a result, diseases such as malaria, dengue and Lyme disease may spread, posing health risks to women who may have limited access to healthcare and information on preventing these diseases.

Climate change-related events such as landslides, floods, and droughts can lead to displacement and migration. Displaced women often face challenges in accessing healthcare, education, and livelihood opportunities, putting their health and well-being at risk. This can also lead to stress, anxiety, and mental health challenges among women. Climate change-induced stresses and health challenges can indirectly affect women's reproductive health, including access to maternal care and family planning services.

Now is the time to act on climate change and build adaptive capacity. A variety of activities must be undertaken so that vulnerable people can protect themselves from the adverse effects of climate change and adapt to climate change. In addition, steps must be taken on an urgent basis to maintain the natural balance. To empower women in tackling climate change, they must improve their education. Most of women have no idea about climate change because they are deprived of education. As a result, no decision can be made on what steps should be taken to prevent disasters caused by climate change and in pre-and post -disaster times. There is no alternative to preserving the natural balance to live a healthy and sustainable life in the coming days. Everyone should come together to prevent the adverse effects of climate change.

Authors:
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Misu Akter - climate activist and student from Khagrachari.

Source: Freepik

The Price of Progress: A Look at Environmental Pollution in Bangladesh

Md. Eftekharul Alam Emon

Environmental pollution remains greatest challenge facing the world today. Gradually increasing, it poses a significant threat to various living organisms, including humans. Human activities, such as urbanization, industrialization, mining, and exploration, play a crucial role in exacerbating global environmental pollution. These issues burden both developed and developing countries. Environmental pollution occurs when harmful substances or energy

Source: Freepik

are introduced into the environment, resulting in its degradation.

According to the Bangladesh Country Environmental Analysis (CEA), each year about 272,000 premature deaths and 5.2 billion days of disease are attributed to air pollution, contaminated water, inadequate sanitation and hygiene, and lead exposure. In 2019, these environmental problems cost Bangladesh's GDP 17.6% of what it was. The most harmful air pollution to health comes from homes and outdoor spaces; it causes about half of all premature deaths, which in 2019 alone accounted for 8.32% of GDP.

The Major Environmental Issues in Bangladesh

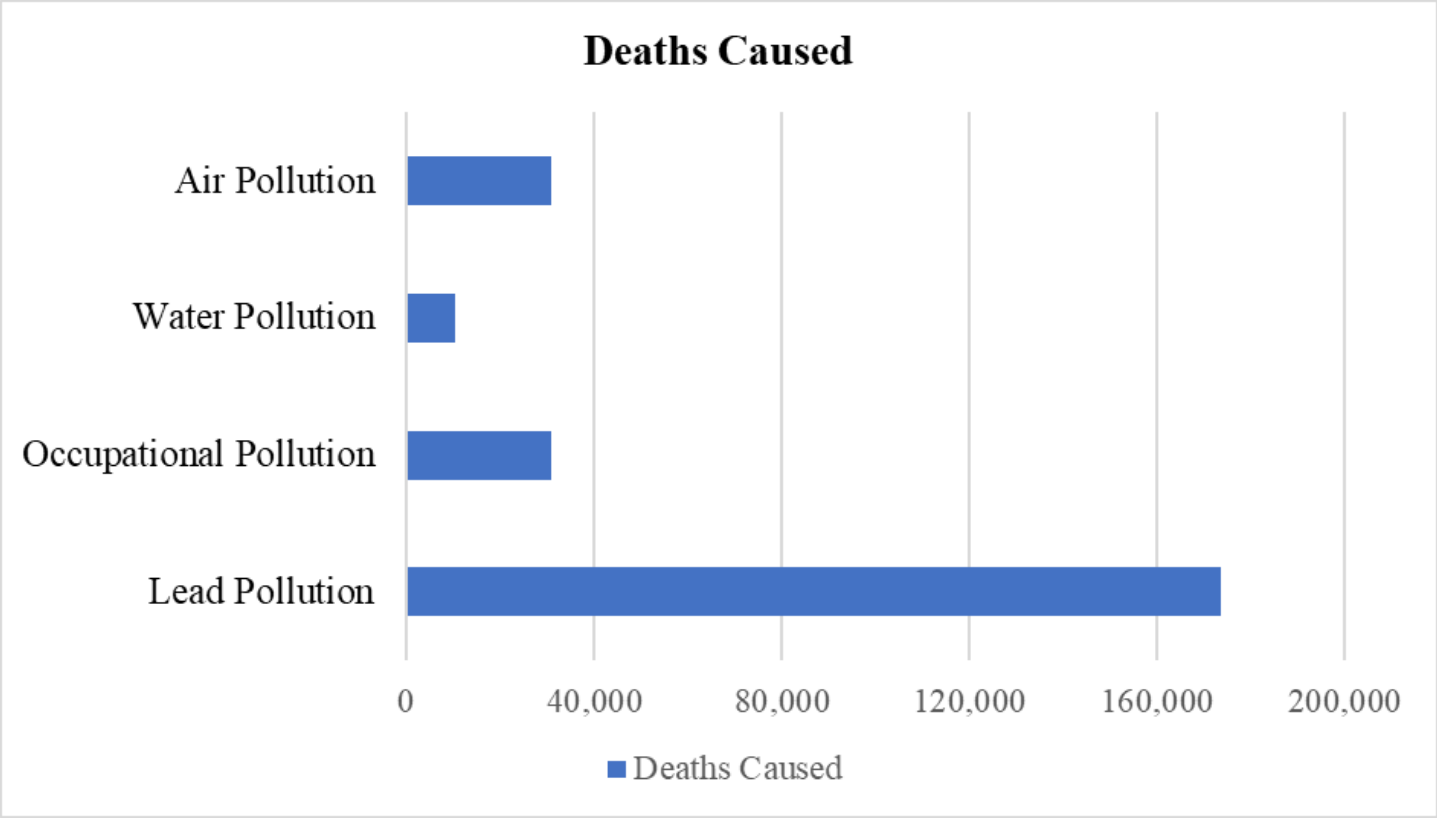
Air Pollution: Bangladesh suffers from severe air pollution caused by the burning of biomass, rapid industrialization, and vehicle emissions. The capital city, Dhaka, is frequently ranked among the world's most polluted cities. High concentrations of particulate matter, sulfur dioxide, and nitrogen dioxide in the air pose serious health risks, exacerbating respiratory conditions and other illnesses. Additionally, poor air quality negatively impacts agriculture and ecosystems.

Noise Pollution: Noise pollution is one of the most dangerous health hazards in Bangladesh. According to WHO 60 decibel (DB) sound could make a man deaf temporarily and 100 DB sound could cause complete deafness. According to the Department of Environment (DOE), the perfect sound condition for Bangladesh is 50 DB at day time and 40 DB at night in residential areas. The main sources of noise pollution are industries, motorized vehicles, construction works and indiscriminate use of loudspeakers. In Dhaka city it is 60 DB to 100 DB. Experts view that if this contin-

ues half the population of Dhaka city will lose 30per cent of their hearing power.

Water Problems: Water contamination is another significant environmental challenge faced by Bangladesh. The extensive network of rivers, including the Ganges and Brahmaputra, serves as a vital resource for transportation, irrigation, and livelihoods for millions. Unfortunately, runoff from agrochemicals, untreated sewage, and industrial waste has polluted these waterways. The presence of toxins and heavy metals not only harms aquatic life but also endangers the health of those reliant on these water sources for daily activities and drinking. For example, every day around 700 tanneries of Dhaka city discharge approximately 16000 cubic meters of toxic wastes in rivers. The Buriganga and Turag rivers full of contaminated water destroying fish resources. The water of these rivers is not even usable for human being.

Soil Contamination: Agriculture plays a pivotal role in Bangladesh's economy, providing sustenance for a significant portion of the population. However, soil contamination caused by the excessive use of chemical pesticides and fertilizers poses risks to crop productivity and public health. Toxic substances accumulated in the soil have a detrimental impact on the quality of food production and may jeopardize consumer health. To ensure long-term food security, implementing sustainable agricultural practices and effective waste management is imperative.



Solid and Hazardous Wastes: Bangladesh faces considerable challenges in managing solid and hazardous wastes. The rapid urbanization, industrialization, and population growth have led to substantial volumes of waste generation. The accumulation of municipal solid waste in cities and towns can release greenhouse gases, contaminate water sources, and serve as breeding grounds for disease vectors. Furthermore, the production of electronic waste (e-waste) has become a significant concern due to the rising use of electronic

devices. Improper disposal of e-waste leads to the environmental contamination of hazardous substances such as lead, mercury, and cadmium. Unofficial recycling operations without proper safety precautions contribute to the release of toxic compounds. Approximately 4000 tons of solid wastes are generated daily and only half of the generated wastes are disposed of in low lying areas or into rivers.

Source: Freepik

Impact of Pollution on Human Health

In Bangladesh, extreme environmental pollution is endangering not just people's health but also the country's ability to thrive economically. Urban dwellers are mostly impacted by air pollution. Inhaling smoke can immediately result in headache, dizziness, burning eyes, sneezing, nausea, fatigue, coughing, and other symptoms. In the long run, it may result in bronchitis and asthma. Lead damages the kidneys, liver, reproductive system, and circulatory nerves. It occasionally results in cirrhosis and malignancy. Development and growth are hampered by carbon monoxide exposure. Pneumonia is caused by nitrogen oxides. Numerous waterborne illnesses are caused by industrial pollutants. Lung, kidney, and skin cancers are slowly brought on by arsenic exposure. Deafness and heart attacks are caused

Source: Freepik

by noise and sound pollution. Moreover, it raises blood pressure. Pollution caused over 2.15 lakh premature deaths in Bangladesh in 2019.

According to a study published in the medical journal The Lancet, occupational risks, lead and water pollution, and poor air quality were the other reasons of these deaths. The leading cause of these deaths was poor air quality. According to a report titled Pollution and Health: A Progress Update, over 30,000 deaths were caused by water pollution, but about 1.75 lakh deaths were caused by air pollution alone. Heart disease, cancer, respiratory disorders, and other diseases are all closely associated with pollution. According to the report, occupational risks and pollution of the air, water, and lead caused at least 215,824 deaths in 2019. Bangladesh was in sixth place on the list of nations where pollution causes early mortality, with 2,357,267 deaths. India was first on the list.

Economic Impact of Environmental Pollution

Over the past few decades, Bangladesh has witnessed severe environmental degradation and a loss of natural capital, affecting industrial

productivity, environmental services, human health, agriculture, forests, and fisheries. An estimated 19 million people in Bangladesh depend on forests for their livelihoods. Rapid changes in land use jeopardize the country's remaining woodlands, which serve as a safety net for the impoverished and as a buffer against climate change -induced rising coastal soil salinity. The economic losses resulting from environmental degradation are estimated to be $6.5 billion annually, accounting for 3.4 percent of Bangladesh's GDP. In Bangladesh, approximately 28% of deaths are attributed to air and water pollution. The Environmental Performance Index (EPI) ranks Bangladesh 162nd out of 180 countries in terms of pollution severity.

Source: Freepik

Air pollution poses a significant environmental problem, impacting the population of major cities in Bangladesh. Due to air pollution, Bangladesh incurs an economic loss of $14 billion annually. Global air pollution costs approximately $2.9 trillion, equivalent to 3.3 percent of the world's gross domestic product (GDP), predominantly caused by the combustion of fossil fuels. However, for Bangladesh, this expense represents more than five percent of its GDP. Although Bangladesh ranks seventh among the nation's most vulnerable to climate-related disasters, its contribution to global emissions that contribute to climate change is merely 0.56%.

Water pollution poses serious health hazards in Bangladesh. Each day, approximately 16,000 cubic meters of toxic waste are discharged into rivers by 700 tanneries in Dhaka. The careless dumping of solid waste, including household and hospital garbage, is a major cause of water pollution in Bangladesh. Less than half of the daily production of 4,000 tons of solid waste is properly disposed of, often without any form of treatment. Hospitals and clinics in Dhaka city produce and discharge harmful pollutants that are poisonous and dangerous without proper treatment.

Bangladesh's experience serves as a lesson for other rapidly developing countries, highlighting the importance of preserving environmental well-being alongside economic progress. The choices we make today will determine whether Bangladesh succumbs to the consequences of its growth or becomes a model of sustainable development, demonstrating that a thriving economy and a clean, healthy environment can coexist. This is not solely Bangladesh's battle; it is a global challenge. We all have a role to play in supporting and learning from Bangladesh's efforts to ensure a cleaner and healthier future for all.

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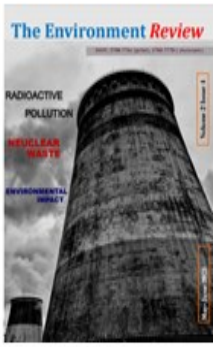

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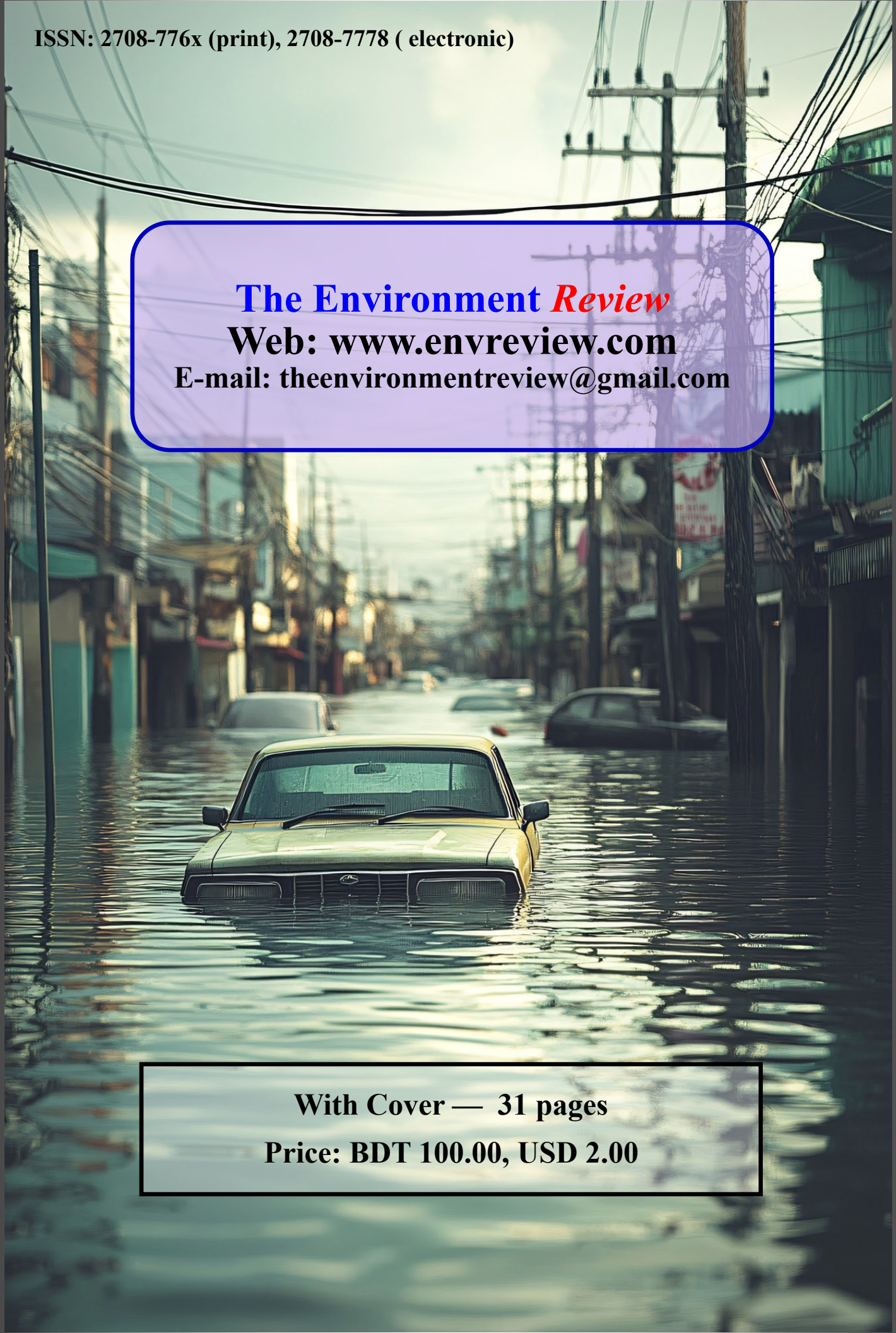

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