

EFFECTS OF CLIMATE CHANGE: PERSPECTIVE BANGLADESH

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Mr. Chair, respected guests and elders, I thank you for giving me this opportunity to share my thoughts and experience on the effects of climate change to Bangladesh.

The effects of climate change have been very significant to Bangladesh and their way of life. Bangladesh is one of the largest deltas in the world which is exceptionally vulnerable to natural disasters¹ and climate because of its geographical location². It features many rivers, flat and low-lying landscape - which provides the natural resources (water, land, fisheries, and wildlife) for the country. Bangladesh is a densely populated country³ and inadequate infrastructure. There are several issues which threaten the country's natural resources, some of which are directly correlated to human activity and some of which are natural such as **floods, cyclones and storm surges, erosion, landslides, salinization, sea level rise and extreme temperature and drought** (North and North-western regions of the country) - which are now slowly becoming more frequent and disastrous as climate change continues to become more lethal.

Bangladesh is the 43rd most vulnerable country in the world to the effects of climate change but is the 37th least prepared to deal with these massive issues⁴. **Two-thirds of Bangladesh is less than five meters above sea level. 28% of population of Bangladesh lives on the coast. It is estimated that by 2050, one in every seven people in Bangladesh will be displaced by climate change. Up to 18 million people may have to move because of sea level rise alone – and Bangladesh may lose approximately 11% of its land.**⁵

Underground Drinking Water

One of the country's main sources of drinking water is groundwater, 85% percent of the population in the country uses groundwater for drinking and domestic purposes⁶.

¹ Bangladesh, home to 160 million people, is among the countries most vulnerable to the effects of climate change. Around 40 per cent of the population here are children. The changing climate | UNICEF Bangladesh

² "Bangladesh is one of the disaster prone areas of South Asia as well in the world, because of its geographical characteristics, complex topographical features, mighty rivers system, monsoon climate and the coastal morphology. Since 1972 the country has experienced total 297 natural disasters." Art-Bangladesh-floods-753-4466-3-PB.pdf (publichealthdisasters.eu). Also, refer to Disaster Management Reference Handbook (2020) - Bangladesh - Bangladesh | ReliefWeb

³ The current population density of Bangladesh in 2021 is 1,123.85 people per square kilometer, a 0.98% increase from 2020. Bangladesh Population Density 1950-2021 | MacroTrends

⁴ Environmental issues in Bangladesh - Wikipedia

⁵ Environmental Justice Foundation | Climate Displacement in Bangladesh (ejfoundation.org)

⁶ Just how much do countries rely on groundwater point sources for their drinking water? – Rural Water Supply Network – blog (rwsn.blog)

Unfortunately, 49% of Bangladesh's groundwater is contaminated by many dangerous metals and chemicals, the most lethal being arsenic⁷ which is responsible for many severe diseases including skin cancer. The issue is an environmental problem but has since been further worsened because of the use of tube wells, which extract groundwater. This problem is very common around inland areas as the surface water there carries lots of bacteria which has affected 35-77 million people in the country already⁸. **Another form of groundwater contamination is lead contamination which is most regular in places like Dhaka because of the overwhelming number of factories, including the leather sector and tanneries - Bangladesh leather exports account for 10 percent of world demand.** Pollution from tanneries at the main industrial site in Dhaka are poured into the Buriganga River, damaging the aquatic life, and forcing the city to rely on groundwater for washing and drinking⁹.

Bangladesh is amongst the fastest-growing world economies. The economy of Bangladesh is characterised as a developing market economy. The industrial sector contributes significantly to Bangladesh's economic growth and development. However, unplanned rapid industrialization and industrial waste has a substantial impact on natural resources, causing contamination of the air, water, and soil, alongside disruption of aquatic and forest ecology¹⁰. **Bangladesh requires lots of energy to sustain the country and its growing factories. To meet its energy demand – Bangladesh is constructing the Rampal power plant, a 1,320-megawatt coal-fired power station in Rampal Upazila of Bagerhat district in Khulna Division** - which will undoubtedly provide a huge amount of energy for the country. However, the construction of this massive power plant will lead to the destruction of the Sundarbans and many acres of land and forests, all of which are inhabited with many species of wildlife.

Experts and environment activists have demanded the scrapping of the Rampal power plant project in Bagerhat on the grounds of using low quality coal for energy generation and polluting the Sundarbans mangrove forest¹¹. This will of course affect the animals, birds, and biodiversity of the of the Sundarbans. This power plant will emit many harmful gases such as sulphur, nitrogen, and carbon

⁷ Arsenic Poisoning in Bangladesh, Impact on Health and Ecology and Mitigation Strategies – IJERT

⁸ Environmental issues in Bangladesh - Wikipedia. Also, refer to Arsenic (who.int)

⁹ In Bangladesh, Tanneries in Trouble - The Asia Foundation

¹⁰ Impact of Industrial Waste on Natural Resources: A Review in the Context of Bangladesh (cwejournal.org)

¹¹ Experts demand scrapping Rampal power plant | Dhaka Tribune Published at 12:29 am July 6th, 2021

all of which will severely increase the threats of climate change and global warming. The gases will lead to the gradual decrement of the ozone layer and can lead to acid rain which will also place the wildlife in danger. **In 2016, a UNESCO report said that hot water and chemicals to be discharged into water bodies from the coal power plant would cause significant damage to the aquatic life in the river and canal networks of the Sundarbans¹².**

Finally, we all fully aware of the importance of water for our living and the survival of all living creatures, organism, and plants to grow. The Water Cycle is a wonderful natural phenomenon. God almighty says, **“And sent down, from the rain clouds, pouring water. That We may bring forth thereby grain and vegetation.”¹³** (78: 14-15). Water is precious, without water, it would be impossible for any form of life to exist in the universe. Adult humans are 60 percent water, and our blood is 90 percent water¹⁴, so we need to remain constantly hydrated to maintain optimal psychophysical balance and ensure the correct functioning of the systems. Close to 75% of the Earth is covered with salt water, while 2% of the surface contains frozen water. Despite the abundance of water, only 2.5% of all water on Earth is fresh water, of which less than 1% is accessible¹⁵. With increase of population and human development, demand for fresh water has increased dramatically, and this has put immense pressure on accessible fresh water on the Earth to provide adequate water for human consumption.

Therefore, it is very important for us to preserve the natural sources of fresh water to protect our human planet. In this regard God almighty explicitly says, **“Say, “Consider this: if your water were to sink `into the earth`, then who `else` could bring you flowing water?”¹⁶** (67:30).

Thank you.

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¹² World Heritage Centre and IUCN call for relocation of Rampal power plant, a serious threat to the Sundarbans - UNESCO World Heritage Centre. Also please refer to UNESCO World Heritage Centre - Document - Report of the joint World Heritage Centre/IUCN Reactive Monitoring mission to the Sundarbans World Heritage site (Bangladesh), 22-28 March 2016

¹³ Al-Qur'an, 78: 14-15

¹⁴ benefits of drinking water and other water facts (medicalnewstoday.com)

¹⁵ Why fresh water? | FreshWater Watch (thewaterhub.org)

¹⁶ Al- Qur'an, 67:30