



Research Paper

Legal Response to Climate Change in Bangladesh

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Abstract

Climate change is a time befitting issue considering the impact of it on human civilization. This article talks about the impact of climate change and how legal systems shall respond to the crisis. It discusses the role of different international agencies to combat climate change in the upcoming years. Side by side, the paper discusses its impact to human rights and how it has affected the lives of people. Lastly the paper figures out Bangladesh's response to the crisis. It mends out the gaps in Bangladeshi legal regime and advises a way forward for Bangladesh to devoid the vices of climate change.

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I. Prelude:

Climate is often defined as average of weather within the timeframe of twenty to thirty years. It describes the variabilities of prelude, precipitation and wind over a period of time. Climate change occurs when changes in earth's climate system result in new weather pattern that remains in place for an extended period of time. The whole climate mechanism comprises five interacting parts, i.e. the atmosphere (air), hydrosphere (water), cryosphere (ice), biosphere (living things), and lithosphere (earth's crust).ⁱ The change can also occur due to external forcing or volatility within the outside components of the system, i.e. changes in solar output and volcanism. Reasonably complete global records on surface temperature is volatile from the beginning of mid nineteenth century. During the twentieth century the instrumental temperature of surface station had been unprecedentedly warm due to the ruthless changes of climate.ⁱⁱ The situation has become serious after witnessing the drastic change of climate across the world. Sea-level is rising, cyclones, floods, hurricanes, typhoons are occurring frequently. Excessive rainfall or low-rainfall is the outcome of climate change. All these elements of climate change portray an alarming future for the upcoming generations due to climate change.

II. The Global Scenario of Climate Change:

The term climate change is used to express global warming because it helps to convey that there are other changes in addition to rising temperature, climate change refer to any significant change in measures of climate such as temperature, precipitation or wind lasting for an extended period of time. Climate change may result fromⁱⁱⁱ: a) Natural factors, such as changes in the sun's intensity or slow changes in the earth's orbit around the sun, (b) Natural process within the climate system (such as changes in the ocean circulations), (c) Human activities that change the atmosphere's condition (such as burning fossil fuels) and deforestation, urbanization and industrialization attributable to raise the atmospheric temperature of the earth. Our atmosphere traps solar radiation and raises the temperature due to major greenhouse gases such as carbon-di-oxide and methane. In some regions of Asia and Africa the frequency and intensity of the drought have increased in recent decades. Episode of El Nino is more frequent from the 1970s.^{iv} All of these are the signs that the earth is ailing in pursuance of climate change making mankind to survive. The earth is losing its equilibrium due to the imbalances created by human activities. Climate change related impacts on human health might lead to a large number of migration. It also bombards poverty and cripples the pace of growth and development.

There are fourteen places that are effected by climate change.^v **The Great Barrier Reef** is the most affected by climate change due to rise in temperature and sea level rise. As a result the coral mortality rates has increased in the periphery. Venice is one of the cities that are harmed by the increase of sea level rise. Also the Glacier national park in Montana in USA-Canada border has surprisingly started to melt harming the home of hundreds species of animals. Whereas the Dead Sea is shrinking at a rate of four feet every year losing its one-

third surface every year. Most recently the Amazon in South America has been in forest fire for 14-15 days. It may extinct if the dry season lasts for few more months. Yamal Peninsula in Russia, The Maldives, The Alps, The Rhone Valley, Mumbai, Key West, Napa Valley, Rio de Janeiro, and Alaska are prone to climate change. The islands especially Solomon Island, Nuatambu Island, and few more Island are at risk. Side by side Jakarta, Bangkok, Lagos, Manila, Dhaka, Shanghai, London and Houston are the most vulnerable cities due to climate change.^{vi} Kiribati, Nigeria, Yemen, Kiribati, United Arab Emirates and Bangladesh are the most disaster prone countries in pursuance of climate change.^{vii}

III. International Agencies dealing with Climate Change:

Some subordinate organs as well as some specialized organization is concerned with menaces of climate change. And those are:

- **World Meteorological Organization^{viii}:**

The World Meteorological Organization is an intergovernmental organization with a membership of 193 member states and territories. As a specialized agency of the United Nations WMO is dedicated to international cooperation and coordination on the states and behavior of the earth's atmosphere, it's interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources.

- **Intergovernmental Panel on Climate Change:**

The Intergovernmental Panel on Climate Change is created by the world meteorological organization in partnership with the United Nations Environment Programme. It is the leading international scientific body related to climate change research. The IPCC has the mission to provide scientific assessment reports on climate change impacts, future risk, adaptation and mitigation options. Three working groups of IPCCs are^{ix}:

- Physical science basis
- Impacts adaptation and vulnerability
- And mitigation of climate change.
- All organizations and states use IPCCs reports as the baseline for policy making at the top of all climate change research initiatives.

- **United Nations framework Convention on Climate Change:**

The United Nations framework Convention on Climate Change is an environmental treaty adopted on 9 May 1992 and entered into force 21st March 1994 after sufficient number of countries had ratified it.^x The ultimate aim of the Convention is to prevent "dangerous" human interference with climate change. This council was awarded with Princess Asturias for international cooperation.

- **United Nations Environmental Programme:**

The United Nations Environment Programme is a programme of United Nations that coordinates the organizations environmental activities and assist developing countries in implementing environmentally sound policies and practice.^{xi} It is the leading global environmental authority that sets the global environment agendas and promotes coherent dimension of sustainable development within the United Nations. Side by side some other regional organizations, development banks and NGOs work for the betterment and procurement of climate change.

International Conventions on Climate Change: The conventions relating to climate change are addressed below:

- **The UN Intergovernmental Panel on Climate Change (IPCC):**

The Intergovernmental Panel on Climate Change (IPCC) was set up by the World Meteorological Organization (WMO) and United Nations Environmental Programme (UNEP) to provide an objective source of scientific information.^{xii} In 2013 the IPCC provide more clarity about the role of human activities in climate change. When it released its Fifth Assessment Report, it is categorical in its conclusion: climate change is real and human activities are the cause.

- **United Nations Framework Convention on Climate Change:**

The UN family is at the forefront of the effort to save our planet. In 1992, its "Earth Summit" produced the United Nations Framework Convention on Climate Change (UNFCCC) as a first step in addressing the climate change problem.^{xiii} Today, it has near-universal membership. The 197 countries that have ratified the convention are parties to the convention. The ultimate aim of the convention is to prevent "dangerous" human interference with the climate system.

- **Kyoto protocol^{xiv}:**

By 1995, countries launched negotiation to strengthen the global response to climate change, and two years later, adopted the Kyoto protocol. The Kyoto Protocol legally binds developed country parties to emission reduction targets. The protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on 1 January 2013 and will end in 2020. There are now 197 parties to the convention and 197 parties to the Kyoto Protocol.

- **Paris Agreement^{xv}:**

At the 21st conference of the parties in Paris in 2015, parties to the UNFCCC reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The Paris Agreement build upon the convention and for the first time bring all nations into a common cause to undertake ambitious efforts to combat climate change and adopt to its effects , with enhanced support to assist developing countries to do so . As such, it charts a new course in the global climate effort. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 Celsius On the Earth Day, 22 April 2016, 175 world leaders signed the Paris Agreement at United Nations Headquarters in New York. This was by far the largest number of countries ever to sign an international agreement on a single day. There are now 184 countries that have joined the Paris Agreement.

- **Climate Summit in 2019^{xvi}:**

In September 2019, Secretary -General Antonio Gutierrez will convene a climate summit to bring world leaders of governments, the private sector and civil society together to support the multilateral process and to increase and accelerate climate action and ambition .He has named Luis Alfonso De Alba, a former Mexican diplomat, as his special envoy to lead its preparations. The summit will focus on key sectors where action can make the most difference heavy industry, nature -based solutions, cities, energy, resilience, and climate finance. World leaders will report on what they convene in 2020 for the UN climate conference, where commitments will be renewed and may be increased.

IV. Human rights and climate change:

Climate change poses an enormous threat to the lives and wellbeing of individuals and communities across the world. These adversarial effects of climate change affect millions of people by violating human rights through the lenses of ecosystem, natural resources and physical infrastructure^{xvii}.

- **Impacts on ecosystem and natural resources:**

According to Intergovernmental panel on climate change (IPCC) climate change will significantly reduce surface water and ground water through the reduction of rainfall and snowpack and increasing temperature. And many other plants and ecosystems will change their behavior and response to nature due to climate change. Coastal areas and low-lying areas will succumb under the water in pursuance of sea level rise. River erosion and flooding will also increase. Climate change is altering the physical, chemical, and biological properties of the ocean; scientists have already observed large-scale distribution shifts of species and altered ecosystem composition as a result of ocean warming.^{xviii} All these events will ultimately affect right to food, right to water, right to livelihood, right to health, right to life and standard living etc.

- **Impacts on infrastructure and human settlements:**

Cities: Climate-related risks such as rising sea levels, coastal storms, heat stress, extreme precipitation, inland and coastal flooding, landslides, drought, increased aridity, water scarcity, and air pollution will have serious impacts on a broad spectrum of city functions, infrastructures, and services and will interact with and may exacerbate many existing stresses. Urban climate change-related risks are increasing, with widespread negative impacts on people and their health, livelihoods, and assets, as well as local and national economies and ecosystems.^{xix}

Villages: Climate change will directly impact water supply, food security and agricultural sectors in rural areas. This will also have effects on the incomes, livelihoods, health and migration patterns of rural areas. It will ultimately cause poverty increase, lower the levels of education and physical isolation. Key economic sectors including energy, water services, transport, livestock, forestry, fisheries and poultry will be harmed due to the offshoots of climate change.

- **Impacts on Livelihood, Health and Security:**

Climate related hazards will increase the prices of food, energy and other critical commodities, political instability and other large scale conflict may increase, individual and household disturbances may also exacerbate due to the losses of crop yields other necessary livelihoods. In the scarce of food and water, vector borne diseases may increase. As well as due to intense heatwaves and fires death rate and disease rate will bombard to another level.^{xx} People in poor regions will become more vulnerable to death and diseases. Climate change will eventually jeopardize human lives through different scarcities, diseases or displacements. Right to property, right to life, right to livelihood, right to health, right to education and other fundamental rights will be incessantly violated.

- **Climate Change and Migration^{xxi}:**

The direct relation between environmental factors and migration is very tough to identify. Because there other factors which contributes to climate induced migration. There are some people who migrate for better livelihood

and a better place to live on. According to the report of Norwegian Refugee Council 31 million people across the world have migrated or displaced due to the offshoots of climate change, i.e. tsunamis, tornadoes, floods etc. It may increase up to 200 million by 2050. In Bangladesh the rate of internal climate induced migration is also concerning. As the residents and other earning sources are being dismantled due to climate induced events, many of the victims move to different areas for better life and livelihood. This makes the clear connection between climate change and migration.

National laws Regarding Climate Change:

The UNFCCC recognized common but differentiated responsibilities of all the nations of the world. Initially the developed nations complied with these modalities provided by Convention on Biodiversity and International Union on Conservation of Nature. Gradually all the nations joined the movement to protect the continuous degradation of climate. All the countries started to contribute mitigate the risk of climate change. To stop GHG reduction developed countries started contributing to developing countries like Bangladesh to enact laws and mitigate climate change.^{xxii} The Labour Act 2006, has aimed to reduce industrial pollution and use of hazardous substances. The Environment Policy of 1992, recognized the need for a better and comprehensive approach to address climate change and environmental issues. Environment Conservation Act (ECA) 1995, was for conserving and improving environmental standards through controlling and mitigating environmental pollution. The Environment Conservation Rules 1997, were promulgated to pursue and strengthen the objectives of ECA-1995. Very recently The draft Clean Air Act is proposed by the Department of Environment and Bangladesh Environmental Lawyer's Association (BELA) to reduce air pollution, carbon emission and use of other harmful chemicals within the country, which is yet to be passed by the parliament. Bangladesh requires more specialized laws to protect and fightback the vices of climate change.

Mechanisms to respond to climate change:

- The mitigation policy under the Paris Agreement 2015 shall be implemented by all the state parties with different mitigation mechanisms. Carbon emission, reduction of harmful chemical use, controlling the burning of fossil fuels and controlling exhale of harmful fumes etc. shall be given priority^{xxiii}.
- UNEP, UNFCCC and WMO shall work hand in hand with the assessment reports of IPCC. They together shall fix capacity building policy to minimize the vices of climate change.
- Carbon Emission rate shall be comprehensively followed by the different state parties to bring a balance in the atmosphere.
- Carbon Emission taxes may be levied globally, which will be monitored and controlled by UNEP with the help of World Bank.
- NGOS, different other regional organizations shall continuously publicize the vices of climate change and make people aware about the loss and damages of climate change.
- Moreover positive will power is very much significant from all the state parties as well as other related stakeholders to adapt with climate change risk and mitigate it. These positive mindsets shall be initiated from the Conference of parties (CoP), that is organized by UNFCCC in different member states.

V. Conclusion:

Climate change is one of the most concerning issues for the upcoming generation as well as this generation. If we fail to adopt comprehensive policies and maintain them accordingly our children or grandchildren may have to pay a greater price for all these. Every state shall continuously update better policies to adapt with the drastic changes of climate and implement the mitigation policies strictly to leave a better world for the future generation. And that's why Ban Ki Moon said, "Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment."^{xxiv} Solutions to one problem must be solutions for all." We all shall look forward to sustainable solutions to tackle the vices of climate change.

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