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**LEGISLATING A WARMING WORLD: CLIMATE CHANGE AND  
EVOLUTION OF LAWS**- S Abhipsha Dash<sup>1</sup>

Climate change stands as the most dire and pressing challenge of the present time. The issue transcends national and maritime boundaries affecting every aspect of our lives as the impact of the temperature rise is becoming increasingly evident. The role of law in addressing these changes and mitigating them is becoming more and more evident.

In the words of Sir David Attenborough :

*“The environment is where we all meet; where we all have a mutual interest; it is the one thing all of us share. It is not only a mirror of ourselves, but a focusing lens on what we can become”*

**IMPACTS OF CLIMATE CHANGE:**

Climate Change has a lot of drastic and lethal consequences on different facets of the world and human life. Some of them are:

- **Ecological Impact:**

Mother nature strikes the perfect balance of all elements required to sustain all forms of life. As Global temperature is continuously on the rise it leads to several ecological damages. The intricate and vicious interplay of environmental degradation and ecological changes damages brings in detrimental consequences. This temperature rise can be attributed to the release of greenhouse gases, the burning of Fossil Fuels, deforestation, and industrial processes. Our basic tenet of life is intricately linked to the environment.

Rising temperature disrupts the habitats of both aquatic and terrestrial animals. It leads to a rise in land and water temperature damaging the rich biodiversity both on and under the land.

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It further impacts the breeding cycle as many reptiles and polar animals breed depending on the temperature. Higher temperature changes the migration patterns as well.

Climate Change leads to the melting of Ice sheets and glaciers. The recent event is the melting of Zombie Ice in Greenland which will impact the flora and fauna of polar regions.

It also leads to alteration in Landscapes and Habitats by giving rise to events like forest fires, avalanches, and landslides.

- **Extreme Weather Event:**

Starting from the impacts of the environment on terrestrial regions, it leads to devastating occurrences of forest fires, landslides, and flash floods. The entire world stands as a witness to the forest fire of California since the beginning of the year. Inland ecosystems like forests, grasslands, and wetlands face altered precipitation and monsoon patterns. Several nations are witnessing incessant amounts of rain, they are inundated by the effect of Triple Dip La Nina. Our very neighboring nation Pakistan was a victim of floods. And in some parts of our nation, heavy rains brought normal lives to a halt. In the coastal states, the frequency of Cyclones increased over the year. The Arabian Sea is witnessing cyclones now more frequently than before.

The effect on Oceans is also particularly pronounced. Coral reefs, vital marine ecosystems are susceptible to temperature change.

Coral Bleaching happens when high temperature stresses on coral reefs. Due to toxic coastal pollution, poorer water quality from sediment run-off has degraded the quality of the Great Barrier Reef. The incessant pollution and accumulation of marine debris have also led to the creation of The Great Pacific Garbage Patch. The list of such incidents is never-ending.

- **Impact on Human Health**

Climate change has increased negative impacts on human health. It can impact health in myriad ways including death due to extreme events like sunstroke, heatwaves, and storms. NASA held July 2023 as the hottest year on record and there was a steep rise in the number of deaths due to heatwaves and sunstrokes.

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It can lead to an increase in zoonoses and vector-borne diseases. Heavy rain leads to several waterborne diseases. Due to extreme events like famine, people and children in the Sub-Saharan region suffer from malnutrition and undernourishment.

Exposure to waterborne pathogens (bacteria, viruses, and parasites) that produce toxins can affect the body's gastrointestinal like diarrhea, cholera, and typhoids. Also, it will lead to a rise in waterborne Vibrio bacteria and harmful algal toxins.

It might further reduce access to safe food and drinking water.

- **Impact on Food and water security**

Due to Climate change cropping pattern gets hampered. If there is heavy rain the ready to harvest crops get destroyed and in case of a heatwave the crops stay devoid of water and nourishment. It directly impacts crop growth and yield. Many staple crops like rice and wheat have optimal temperature ranges for growth. Heat stress at crucial stages like flowering and grain filling can negatively impact cereal crops.

Further change in precipitation or monsoon patterns including an increase in frequency of droughts has several impacts. Droughts can lead to water stress affecting crop development and reducing yields. On the other hand, heavy rain can cause soil erosion, nutrient loss, and waterlogging degrading soil health

- **Economic Disruptions, and Migrational Changes**

Climate change has an intense and earnest impact on economies affecting the market trends. Extreme weather conditions like hurricanes, floods, and storms cause a substantial economic loss to the society and the respective state. These impacts ripple through energy infrastructure and affect the supply of electricity. Heatwaves reduce the efficiency of thermal power plants. Rising sea levels pose a risk to coastal energy infrastructure

- **Impact on Indigenous People:**

The list goes on to encompass the hazardous effects on the lives of indigenous people. They are deeply intertwined with nature and even worship them; hence climate change brings them cultural and spiritual disruptions. It further leads to them losing their ancestral property because of displacement and changes in migration patterns.

Traditional knowledge passed through generations is the cornerstone of the lives of indigenous people, including knowledge about weather and wind patterns, however,

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climate change is rendering this knowledge obsolete, snatching some people's source of livelihood as well.

### **Legal Frameworks:**

#### International

The people epiphanised about the ticking bomb of climate change. The legal framework is based on the foundation of International Agreements, different Domestic Legislations, and regional policies. The Landmark Paris Agreement of 2015, ratified by nearly all countries established a unified framework for mitigating climate change. It started with the United Nations Summit on Environment held in Stockholm, Sweden in 1972. It ended in the passing of the Stockholm Declaration containing 26 principles and 109 recommendations.

- The Kigali Amendment Act:- The Kigali Amendment Act aims to reduce the production of Hydrofluorocarbons, which are potent Green House Gases.
- European Green Deal 2019:- It is a comprehensive plan by the European Union to phase out carbon and become carbon neutral by 2050. It includes policies regarding energy efficiency, renewable energy, etc.
- Climate Action and Resilience Act 2019- This is an example of state-level climate legislation that aims to achieve the target of net zero by 2050
- Energy Jobs Act in Marylands 2019
- The commitments made by India at COP26, also known as 'Panchaamrit'
- The establishment of the International Solar Alliance by India and France,
- The One Sun, One World, One Grid project by India and the UK.

### **INDIAN LEGISLATIONS:**

The environmental protection movement in India dates back to 1485AD's Bishnoi Movement by Guru Maharaj Jambaji. It has been a topic of utmost concern in the past two decades. Realising the impacts the government has formulated several legislations to protect the environment and people related to it.

- The Water Act of 1974
- Air(Prevention and Control) of prevention act 1981
- Environment Protection Act of 1986

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- Wildlife Protection Act 1972
- Forest Conservation Act 1980
- Public Liability Insurance Act 1991
- Biological Diversity Act 2002
- National Green Tribunal Act 2010.

### **INITIATIVES IN THE NATION:**

In recent years several different initiatives, shaping the green economy, attempting to strike a balance between environment and development. But the ambitions are yet to be fulfilled.

For instance, The Swachh Bharat Abhiyaan 2014, which focuses on cleanliness and sanitation has its effects penetrated deep into the roots of society. In pursuance of the same, the government has launched several initiatives to eliminate the menace of open defecation, and manual scavenging-related hazards. The introduction of the NAMASTE scheme for instance provides a relief to manual scavengers.

The Jawaharlal Nehru Solar Mission was launched in 2010, to achieve 100GW of solar energy by 2022. The Pradhan Mantri Ujjwala Yojana launched in 2016, aims to provide clean cooking fuel in every household eradicating the hazardous effect of using traditional fuel sources like timber and coal which not only pollutes the environment but at the same time causes tuberculosis. The Har Ghar Jal Yojana which aims to provide 55l of water to every household has been a success in the state of Goa, Union territory of Daman and Diu.

The Smart Cities Mission launched in 2015 creates a sense of competition among all cities and provides them with incentives to maintain cleanliness. Further to legislate failure to obey these laws and duty to protect the environment there is the establishment of the National Green Tribunal in 2010 which takes suo moto cognizance of them

The 2015 Paris Agreement commits the countries to limit the global average temperature rise to well below 2 degrees Celsius above pre-industrial levels and aim for 1.5 degrees Celsius.

The effects we are witnessing now are just the tip of the iceberg and the real picture is more grim than it. We are sitting on top of a Volcano which can burst at any point in time. In the words of Greta Thunberg, we should not sell our future so that a small number of countries can make money out of it. We owe this environment to each other and the next generations. From altered habitats to disrupted ecosystems, the impact of climate change on the environment is complex

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and intertwined. We should realize the labyrinthine relationship of our environment and the impacts that will arise from its degradation, and urge all stakeholders to take necessary steps to mitigate the challenges.

*"The greatest threat to our planet is the belief that someone else will save it." - Robert*

*Swan*



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