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refereed journal providededicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

CLIMATE CHANGES AND INDIAN LAWS

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CLIMATE CHANGE AND INDIAN LAWS

Nowadays, the world is facing the big problem of the climate change, which increases the level of CO2 into the stratosphere. The human activities are the most important responsible factor for increasing radical changes into the atmosphere. The climate change is one of the greatest challenges by all the nations of the globe. Climate change occurred as impact of the anthropogenic activities like combustion of fossil fuels, industrial processes, deforestation, greenhouse gases release into atmosphere climate change affects population through the altering the basic life conditions, food availability by causing habitat loss and Climate change is caused by the release of Green House Gases into the atmosphere. The climate change is characterized by global warming. It results in frequent forest fires, devastation in vegetation and crop failures. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods". Climate change affects the entire global economy. The impacts of climate change are expected to affect seriously affect the livelihoods, health and educational opportunities of people living in poverty, their chances of survival.

The world is currently facing a grave issue known as Global Warming, which is caused by climate change and poses a threat to the existence of life on Earth. Global climate change is a highly concerning environmental problem that arises from the accumulation of Green House Gases in the atmosphere, leading to the severe impact of climate change, particularly in developing nations like India. In our country, climate change negatively affects forestry, agriculture, natural resources, and temperature patterns. The parliament has enacted important legislations to protect the environment. The alteration in global climate change patterns, observed since the mid-twentieth century, is primarily attributed to the increased levels of carbon dioxide (CO2) in the atmosphere due to the use of fossil fuels. Studying climate change

is crucial because if human activities that contribute to detrimental climate change are not reduced, the survival of the entire human race is at risk. Unfortunately, throughout history, mankind has often misused scientific knowledge to harm nature, despite the potential for understanding and preserving it.

IMPACT OF CLIMATE CHANGE

Climate change has wide-ranging effects on both humans and natural resources, including economic activity. It significantly impacts the population by altering basic aspects of life, such as food availability, and by causing habitat loss and fragmentation. The primary driver of climate change is the increasing temperature, which leads to a rise in greenhouse gas emissions, including CO2, CH4, and CFC. This change in climate poses a threat to human health and all living creatures. One of the most serious potential consequences of climate change is water scarcity. The melting of glaciers will result in flooding and have a significant impact on water resources within the next 2 to 3 decades. The implications of melting glaciers and the sharing of river basin water resources present a formidable challenge and will lead to a severe shortage of water for farming and drinking purposes. Coastal areas, including their ecosystems, will also be affected by climate change. The rise in ocean levels and increasing temperatures will have a detrimental impact on these regions. The high population density in mega-delta regions puts them at risk of flooding. Consequently, the increase in sea levels could pose a threat to industries and fish productivity. Furthermore, climate change has a profound impact on agriculture. Surface warming and shifts in rainfall patterns can lead to a decrease in crop yields. Additionally, there will be a reduction in arable land, which will further impact agricultural output¹.

Climate change is a profound challenge that affects every aspect of life on Earth. Rising global temperatures, driven by the increase of greenhouse gases such as carbon dioxide and methane, are causing significant disruptions to natural and human systems. One of the most visible impacts is the melting of polar ice caps and glaciers, which contributes to sea-level rise, threatening coastal cities and low-lying islands with flooding and erosion. This is compounded by more frequent and severe extreme weather events, including hurricanes, heat waves, droughts, and floods, which disrupt ecosystems, destroy infrastructure, and harm communities.

¹Mr. Sagar Vilas Shelke,THE INDIAN ENVIRONMENTAL LAWSAND CLIMATE CHANG,VOLUME 1, ISSUE 10 (2016, NOV), http://publications.anveshanaindia.com/wp-content/uploads/2016/11/THE-INDIAN-ENVIRONMENTAL-LAWS-AND-CLIMATE-CHANGE

Changing precipitation patterns have led to water scarcity in some regions while causing excessive rainfall and flooding in others, both of which adversely affect agriculture, reducing crop yields and increasing food insecurity. Biodiversity is also at risk as many species struggle to adapt to rapid environmental changes, leading to habitat loss and higher extinction rates. For humans, the health implications are severe, with rising temperatures exacerbating heat-related illnesses and facilitating the spread of vector-borne diseases like malaria and dengue. Economically, the costs of climate change are staggering, including damage to infrastructure, losses in agricultural productivity, and increased expenditures on disaster relief and adaptation measures. Socially, vulnerable communities bear the brunt of the crisis, often facing displacement and resource scarcity, which can lead to conflict and migration. These challenges underscore the urgency of addressing climate change through mitigation efforts such as reducing greenhouse gas emissions and transitioning to renewable energy sources, as well as adaptation strategies to enhance resilience in the face of inevitable changes. The global community must act decisively to curb the impacts of climate change, as its far-reaching consequences threaten not only the environment but also the stability and future of human society.

IMPORTANT ENVIRONMENTAL LAWS ON CLIMATE CHANGE

1. The Forest Conservation Act 1980:

The enactment of the Forest Conservation Act in 1980 was a response to the growing concern over India's escalating deforestation and the subsequent degradation of the environment. Its primary objective was to safeguard and preserve forested areas. Instead of safeguarding forests, the law imposes limitations on the state's authority to de-reserve land for future generations. Following an amendment in 1988, states with reserved forests are required to seek permission from the central government before utilizing forest land for non-forest purposes, transferring forest property to private individuals or companies, or clearing forested areas for reforestation purposes. The Act also establishes an advisory council to provide guidance to the central government on these matters. Once a forest has been designated as reserved, it cannot be de-reserved by any government or entity. Forest land can only be utilized for forestry purposes with prior consent from the national government. The Act was enacted to address the detrimental effects of deforestation, which include ecological damage and the

exacerbation of global warming².

2. The Air Prevention and Control of Pollution Act, 1981

Just like the Water Act of 1974, the Air Act of 1981 follows a similar structure. The central and state water pollution control boards created under the Water Act were also tasked with managing air pollution under the 1981 Air Prevention and Control of Pollution Act. States without existing boards were required to establish air pollution control boards. Sections 19 to 31 A of the Air Act outline methods to prevent and control air pollution, aiming to reduce pollution and address warnings about climate change³

3. The Environment Protection Act, 1986

This legislation was enacted following the tragic Bhopal Gas Disaster of 1984, which resulted in the loss of more than 3000 lives. The Environment Protection Act serves as an umbrella for various national and state bodies established under previous laws like the Water Act and the Air Act, enabling them to collaborate effectively. It grants the executive branch extensive powers and reflects a key legislative objective of environmental protection. The Act empowers the Central Government to uphold and improve environmental quality by regulating emissions and discharges, overseeing industrial locations, managing hazardous waste, and safeguarding public health and welfare. Environmental pollution occurs when substances in the environment reach levels that could impact the atmosphere, whether in solid, liquid, or gas form. Section 3(1) of the Environment Protection Act authorizes all necessary measures to safeguard and enhance air quality, as well as to monitor and reduce water pollution. Pollutants can only be emitted or discharged into the atmosphere in compliance with Section 7 of the Act. The Environment (Protection) Rules of 1986 were formulated by the government to enforce these regulations. Additionally, this legislation outlines the Ecomark Program, established in 1991 by the Department of Climate, Forests, and

²J. Sathaye, P.R. Shukla and N. H. Ravindranath, (2006), "Climate change, sustainable development and India: Global and national concerns", Current Science, February 2006, Vol.90 (3), https://www.researchgate.net/publication/237247341_Climate_change_sustainable_development_and_India_Global_and_national_concerns

³MS.ADITI JANI 1, DR MAYURI H.PANDYA,AN ANALYSIS OF LAWS REGARDINGCLIMATE CHANGE: A TRANSNATIONAL LAW PERSPECTIVE , February 2022 , https://www.researchgate.net/publication/367100508 AN ANALYSIS OF LAWS REGARDING CLIMATE CHANGE A TRANSNATIONAL LAW PERSPECTIVE.

Wildlife. The program aims to equip producers with tools for creating environmentally friendly goods, recognize and reward those making significant efforts to reduce their environmental impact, and raise consumer awareness. Areas at risk environmentally are periodically safeguarded through notifications issued by the central government under the EPA.

4. The Factories Act, 1948

The primary objective of The Factories Act, 1948 was to ensure the well-being of workers not just in their workplace settings but also in terms of their benefits. This law safeguards both the environment and the health of employees. Consequently, all liquid waste, gases, and fumes produced during manufacturing must undergo treatment before being released. Hazardous processes are described in the Act as any process or operation that, if not handled with care, can lead to significant harm to the health of individuals involved or result in contamination of the environment. The 1987 amendment to the Factories Act, which came into effect after the Supreme Court's ruling in the Shriram Gas Leak Case and the Bhopal tragedy, introduced additional regulations specifically addressing hazardous industrial practices⁴.

5. The National Green Tribunal Act of 2010

The National Green Tribunal Act of 2010 was enacted to govern the National Green Tribunal. These Tribunals were established to ensure the fast and effective disposal of cases that relate to the protection of the environment. These tribunals also have jurisdiction over cases where a substantial question relating to the environment arises.

6. The Wildlife Protection Act of 2002

The Wildlife Protection Act of 2002 was enacted to protect wildlife within the borders of India. The act has three main objectives – First, to establish uniform legislation for wildlife. Second, to establish a network of national parks and wildlife sanctuaries. Third, to regulate the illicit trade of wildlife and its products.

 $\frac{https://www.google.com/search?q=4.J.W.+Hansen\%2C+(2004)+\%E2\%80\%9CClimate+impact+on+Indian+Ag}{riculture\%E2\%80\%9D\%2C+International+Journal+of+Climatology\%2C+Vol.+24\%2C+1375-1393.\&ie=UTF-8\&oe=UTF-8\&hl=en-in\&client=safari$

⁴.J.W. Hansen, (2004) "Climate impact on Indian Agriculture", International Journal of Climatology, Vol. 24, 1375-1393.

7. The Biological Diversity Act of 2002

The Biological Diversity Act of 2002 was enacted for the conservation and sustainable use of biodiversity in the country. This act helps bring India one step closer to the objective of realizing the equitable sharing of its biodiversity.

Constitutional Perspective on the protection of Environment and climate change

Our Indian constitution is one among some constitutions in the world that have provisions for the protection of environment. Such a important provisions are as follows-

Article 21 is stated that "No person shall be deprived of his life or personal liberty except according to procedure established by law." So the right to life including right to clean environment is a fundamental right of every individual. In Rural Litigation and Entitlement Kendra, Dehradun vs. State of Uttar Pradesh, (AIR 1985 SC 652) for the first time through not directly, recognized the right to life include right to clean environment.

Article 47 of the Indian Constitution stated that, "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall Endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health." The responsibility of the state regarding raising the level of nutrition as well as the standard of living and to improve public health.

Article 48A of the Indian constitution stated that, "The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country".

Article 51(A)(g) of the Indian constitution stated that, "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."

By the 42nd Constitutional amendment, 1974 stated that the responsibility of the State Government to protect, preserve as well as develop the environment and to safeguard the forests and wildlife of the nation. Then, under Fundamental Duties, makes it the fundamental duty of every citizen to protect and develop the natural environment containing rivers, forests, lakes and wildlife as well as to have compassion for living creatures.⁵

⁵ Pooja Sangwan,A Review Of Climate Change And Environment Laws In India, April 2019 https://journals.edupub.org/index.php/ejbss/article/view/5625

LANDMARK JUDGEMENTS

- 1. In the case, *Virender Gaur v. State of Haryana*⁶, the Hon'ble Court noted that The right to life is guaranteed under Article 21. Without environmental protection, sustainability, ecological harmony, freedom from polluted air and water, and sanitization, it is impossible to enjoy life to its fullest. This includes the right to a dignified existence. Anyone who contracts or engages in any activity that will harm the environment shall be regarded to be in violation of Article 21. As part of the right to a decent existence, everyone has the right to a healthy environment, and without it, it would be impossible to live with any sense of honor or respect for one's own human dignity.
- 2. In the case, *M.C.Mehta v. Union of India*⁷. In addition, the Supreme Court mandated the presentation and dissemination of environmental messages as well as the inclusion of the environment as a mandatory subject in schools and colleges. Films and slides must be shown in cinemas, as well as radio and television programs, according to the Supreme Court's guidelines. The University Grants Commission (UGC) was tasked with recommending environmental studies as a topic of study for colleges and universities throughout the country. As a result, State Boards of Government were ordered to take immediate action to include environmental education into the school curriculum."
- 3. In the case, *Industrial Areas Development Board v. Sri. C Kenchappa and Ors*⁸. An decision of the Karnataka High Court requiring the appellant to maintain a one-kilometer-wide buffer zone around the outskirts of a community in order to preserve a "open space" was overturned by the Supreme Court. According to the judiciary, the globe is experiencing a significant environmental degradation crisis as a result of disorderly growth and industrialization, the combustion of fossil fuels, and vast deforestation, which contributes to environmental degradation and global warming."
- 4. In this case, *M.C.Mehta v. Union of India*⁹. An urgent PIL has been filed to safeguard the Taj Mahal and prevent air pollution from the Taj Trapezium. The Taj-Trapezium

⁶(1994) SCC 577.

⁷ (1987 AIR 1086, 1987 SCR (1) 819)

^{8.(}Appeal (civil) 7405 of 2000)

^{9.(1987} AIR 1086, 1987 SCR (1) 819)

casing is another name for this model. Mathura Refinery and other industrial sources of sulfur dioxide produce sulfuric acid, sometimes known as "acid rain," which corrodes white marble. The Supreme Court's rulings were based on evidence from several technical experts that air pollution hurt the Taj and those who live in the TTZ. In light of the "precautionary principle," the Court ruled that environmental measures must be taken to foresee, avoid, and remedy the environmental consequences of the activity.

CONCLUSION

"Climate change is already posing major dangers to the country, making global warming one of the country's most pressing concerns. As a developing country like India, this is a huge problem. Environmental and animal health are all being impacted by the effects of global warming. Climate change has a negative influence on human health, including health problems related to food insecurity, vector-borne infections, other health effects, increasing sea-levels, receding glaciers, severe weather events, and excessive temperatures. Crops, forests, coastlines, and other natural resources will all be adversely affected by the changing climate. This, in turn, will have a negative impact on the country's national growth goals.

"Several pieces of legislation have been enacted to address the threat of global warming. Despite the significant environmental risks in the area, India has a well-developed legal and institutional framework for dealing with them. There are particular articles in the Constitution of India to safeguard the environment because of the country's size and development. The government has also set up the Indian Network for Climate Change to address the issue. It comprises the organization's objectives and the measures it intends to follow in order to attain long- term success. As a whole, India is doing a good job combating the effects of global warming 10."

Climate change poses an existential threat that requires urgent and coordinated action globally and nationally. India, being one of the most vulnerable countries to climate change due to its diverse geography, large population, and dependency on agriculture, has taken significant steps to address this challenge through its legislative and policy framework. Indian laws and initiatives, such as the Environment Protection Act of 1986, the Air (Prevention and Control of Pollution) Act of 1981, and the Water (Prevention and Control of Pollution) Act of 1974,

¹⁰10.P.K. Aggarwal, R.K. Mall, (2002), "Climate change and rice yields in diverse agro environments of India". II Effect of uncertainties in Scenarios and crop models on Impact Assessment, "Climatic Change", Vol. 52, 331-443.

provide the foundation for environmental regulation and pollution control. The National Action Plan on Climate Change (NAPCC), with its eight missions including renewable energy promotion, water resource management, and agricultural sustainability, represents India's commitment to mitigating climate change impacts. Additionally, state action plans and sectoral policies aim to address localized challenges.

India's international commitments under the Paris Agreement, such as reducing carbon emissions intensity and increasing the share of renewable energy, reflect its proactive approach toward global climate governance. However, while these efforts are commendable, implementation gaps, inadequate enforcement, and lack of public awareness hinder their effectiveness. Strengthening India's climate change response requires enhancing institutional capacity, ensuring stricter compliance with environmental laws, promoting green technologies, and encouraging community participation. Moreover, aligning developmental goals with environmental sustainability is critical to achieving a low-carbon economy while addressing issues of equity and justice.

As climate change continues to intensify, the legal framework in India must evolve to address emerging challenges. This includes updating laws to incorporate climate-specific mandates, creating stricter penalties for violations, and fostering climate-resilient urban and rural planning. A just transition to a sustainable future must also focus on protecting vulnerable communities, ensuring fair distribution of resources, and fostering public-private partnerships for innovative solutions. India has the potential to be a global leader in climate action, but this requires not only strong laws and policies but also their effective implementation and the collective efforts of the government, businesses, and citizens. By prioritizing sustainability and strengthening its legal and institutional frameworks, India can mitigate the impacts of climate change while paving the way for inclusive and resilient development.