



INTERNATIONAL  
ENVIRONMENTAL LEGAL  
RESEARCH JOURNAL

VOLUME 1 AND ISSUE 1 OF 2023

INSTITUTE OF LEGAL EDUCATION



## International Environmental Legal Research Journal (Open Access Journal)

Journal's Home Page – <https://ielrj.iledu.in/>

Journal's Editorial Page – <https://ielrj.iledu.in/editorial-board/>

Volume 1 and Issue 1 (Access Full Issue on – <https://ielrj.iledu.in/category/volume-1-and-issue-1-of-2023/>)

### Publisher

Prasanna S,

Chairman of Institute of Legal Education (Established by I.L.E. Educational Trust)

No. 08, Arul Nagar, Seera Thoppu,

Maudhanda Kurichi, Srirangam,

Tiruchirappalli – 620102

Phone : +91 94896 71437 – [info@iledu.in](mailto:info@iledu.in) / [Chairman@iledu.in](mailto:Chairman@iledu.in)



© Institute of Legal Education

Copyright Disclaimer: All rights are reserve with Institute of Legal Education. No part of the material published on this website (Articles or Research Papers including those published in this journal) may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher. For more details refer <https://ielrj.iledu.in/terms-and-condition/>

## THE PRESENT ERA CLIMATE CHANGE IS ANTHROPOGENIC

**Author** – MAYURI, Student at Dr. B.R. Ambedkar National Law University, Sonapat, Haryana.

**Best Citation** – MAYURI, THE PRESENT ERA CLIMATE CHANGE IS ANTHROPOGENIC, *INTERNATIONAL ENVIRONMENTAL LEGAL RESEARCH JOURNAL*, 1 (1) of 2023, Pg. 87-92, ISBN - 978-81-960677-0-0.

### Abstract

*Climate Change has emerged as one of the most exigent and unavoidable issue in the global arena which, if left ignored, can prove serious havoc to the survival of various species, let alone human beings, on this planet. For the same reason, this is a hot topic for debate at an international spectrum as it involves the problems of clashing interests among different States and serves as a watchdog for checking their self-centred actions that damage the environment. The following piece of texts aims at providing a better understanding about the concept of climate change, its evolution and contemporary importance, its causes, its scientific explanation and evidence of its degradation in the visible world. Further, the paper deals with global warming and how it is the driver for climate change, greenhouse gases, the impact of climate change and global warming etc. The paper central theme of the paper lies in asserting that the present era climate change is the result of human activities, that is, it is anthropogenic.*

**Keywords:** climate, change, global, warming, degradation, anthropogenic, greenhouse, etc.

### I. INTRODUCTION

"The campaign against climate change is an odd one, strangest of them all, it is a campaign

not just against other people but also against ourselves." <sup>275</sup>

As per United Nations, "Climate Change refers to long term shift in temperature and weather patterns." <sup>276</sup> These shifts may be natural due variations in the solar cycle, change in the directory of Earth's orbit, etc. However, the scientific research has proven that human activities have been the main driver of Climate Change. The reasons attributable for this irreparable environmental damage includes burning of fossil fuels, using coal for thermal heating, deforestation, landfills for garbage, emission from industries, excessive mining; even online shopping can deteriorate the climate.

### II. HOW IT HAPPENS? AN INSIGHT

Earth is surrounded by a blanket of greenhouse gases. The earth absorbs sunlight energy and re-emits it in the form of heat, what scientists call as the long wave infrared radiation, back towards the space. On their way back, they get absorbed by these greenhouse gases. This is actually essential to keep the planet warm. So far, no problem.

It is when the humans, by their activities, start changing this natural balance of these gases in the atmosphere, that is where the rubber meets the road. Earth is not a new planet. However, in just last 150 years, the carbon dioxide concentration in the atmosphere has risen to more than 50%, that is from 280 parts per million to more than 417 parts per million (ppm).

And not just that, the increase in the particle load of atmosphere, contamination of troposphere by the chlorofluorocarbons, the contamination of the stratosphere by the subsonic and supersonic aircrafts, acidification of oceans, depletion of ozone layer, rising of sea

<sup>275</sup> UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS, <https://sdgs.un.org/topics/climate-action-synergies> (last visited on Feb. 26, 2023).

<sup>276</sup> UNITED NATIONS ORGANISATION CLIMATE ACTION, <https://www.un.org/en/climatechange/what-is-climate-change/> (last visited on Feb. 26, 2023).

levels, melting of glaciers etc., are the horrid testimonies of this barbarity.

And a common thread runs through all these environmental problems, that are caused by an agent. They do not occur naturally, they are caused. This very factor hints at the anthropogenic trait of present era climate change.

### III. FACTORS AFFECTING THE CLIMATE CHANGE

There are myriad natural and man-made factors which act as the driver of climate change. However, this no secret that the harm caused to the climate by man-made factors is far more pronounced as compared to that caused by natural reasons. Some of these reasons are listed below: -

#### A. Natural Causes -

##### 1. Volcanic Activity

Volcanic eruptions cause a great deal of carbon dioxide efflux in the atmosphere which contributes to the greenhouse effect and consequently global warming, in the long run. Yet, this is insignificant as compared to the deterioration caused by the human activities.

##### 2. Sunspot Activity

The surface of the sun is covered in large number of spots known as 'Sunspots'. These sunspots are at a significant lower temperature as compared to their surrounding area. This is due to the chain reaction between Hydrogen and Helium molecule that continuously takes place at the Sun. A decrease in the number of sunspots can cause a rise in the Earth's global temperature.

##### 3. Continental Drift

Alfred Wegener in 1912 propounded the continental drift theory. As per the theory, the continents of the world are constantly drifting. Initially, there was a large supercontinent known as Pangaea which

later dissipated into two big continental masses called Gondwanaland, in the south and Laurasia, in the north. Later on, with the passage of time, these further got split into yet smaller continents which we know today. Due to this, there has been a significant change in physical features of the landmasses, their positions, position and size of water bodies (Oceans, Seas etc.) etc., which have resulted in a massive climate change.

#### 4. Milankovitch Cycles

This concept was developed by a Serbian scientist Milutin Milankovitch who stated that Earth's eccentricity (shape of Earth's orbit), Earth's obliquity (axial tilt) and Earth's precession (the direction towards which Earth's axis of rotation is points) together constitute a Milankovitch cycle. This to a great extent affects climate change and also explains the concept of ice-age for its notable correlation with glacial and interglacial periods.

#### B. Anthropogenic or Man-Made Causes of Climate Change -

##### 1. Deforestation

This is the prime cause for climate change. The want of human civilization and modernization has led to severe deforestation which has resulted in the disruption of the climatic pattern worldwide. Untimely rainfall, extreme heat and cold, excessive humidity etc., are all its direct impacts. Forests act as a natural sink for carbon and play an important role in fight against global warming. A carbon sink is anything that absorbs more carbon than what can be absorbed. Forests, soils, oceans, water bodies etc., all store carbon and this carbon moves between them in a continuous cycle. Green Carbon can be effectively removed by photosynthesis and can be stored in soil and plants. Thus, trees act as a natural sink for green carbon and maintain the appropriate

concentration in the air. When the tree cover is cleared, carbon stored in it gets released as carbon dioxide causing global warming.

Moreover, trees prevent soil erosion by holding the silt particles with its roots. They also act as a natural barrier to wind currents and thunderstorms. Thus, deforestation can lead to floods, landslides and other natural calamities.

### 2. Excessive Combustion

Burning of carbon-based fossil fuels and coal cause efflux of carbon dioxide in the atmosphere which increases the concentration of Carbon Dioxide (CO<sub>2</sub>) in the atmosphere, ultimately resulting in global warming and climate change.

### 3. Modern Agricultural Practices

Agricultural practices embraced lately contribute largely towards global warming. The modern agricultural processes like biomass burning, enteric fermentation, rice paddies etc., are a viable source of methane (CH<sub>4</sub>) discharge in the atmosphere. They absorb infrared radiations, affects tropospheric O<sub>3</sub>, affects stratospheric O<sub>3</sub> and produces CO<sub>2</sub>.

### 4. Industrialization and Urbanization

Industrialization and urbanization are the sin-qua-non, of present world. But incessant industrial growth at the cost of the climate with continued apathy to it causes a great threat to it. Moreover, the discharge of harmful untreated waste in the form of fluid waste, solid waste or smoke disrupts the balance. The harmful gases present in the smoke like Sulphur dioxide, Nitrous oxide etc., are the greenhouse gases which absorb the infrared radiation causing global warming and climate change.

### 5. Global Warming: The Driver of Climate Change

Global warming refers to overheating of the planet that occurs as a result of increased emissions of greenhouse gases in the atmosphere from human activities. This gradual increase in the earth's temperature is known as global warming.

Global warming is the exact opposite of the extreme cross frostbiting cold that took place around 1500 years ago on earth due to two volcanic eruptions, one after the other. The average temperature of Earth's atmosphere and oceans has been increasing at an unprecedented rate since the last two decades. The year 2015 has been termed as the globally warmest year after 1880. Global warming can result in a plethora of impacts on the climate.

## IV. ENVIRONMENTAL JURISPRUDENCE HINTS AT CLIMATE CHANGE BEING ANTHROPOGENIC

The entire environmental jurisprudence is premised upon the concept of 'Anthropocene' which perceives that humans are powerful source in re-shaping the environment. This phenomenon is backed by the enactment of numerous treaties and conventions, laws like The Environment (Protection) Act, 1986<sup>277</sup>, The Air (Prevention and Control of Pollution) Act, 1981<sup>278</sup>, The Water (Prevention and Control of Pollution) Act, 1974<sup>279</sup>, etc., to curb the harm caused by the human activities, to punish the defaulters and provide the remedies for its restoration. The concept of Absolute Liability and Polluter Pays principle is laid down to control the anthropogenic environmental pollution which is detrimental to the climate.

The United Nations Framework Convention on Climate Change in its Article 2<sup>280</sup>, explicitly

<sup>277</sup> The Environment (Protection) Act, 1986, No. 29, Acts of Parliament, 1986 (India).

<sup>278</sup> The Air (Prevention and Control of Pollution) Act, 1981, No. 14, Acts of Parliament, 1981 (India).

<sup>279</sup> The Water (Prevention and Control of Pollution) Act, 1974, No. 6, Acts of Parliament, 1974 (India).

<sup>280</sup> UNITED NATIONS, <https://www.un.org/en/climatechange/what-is-climate-change> (last visited on Feb. 26, 2023).

mentions that, its ultimate objective is the stabilization of greenhouse gases in the atmosphere that would prevent the dangerous anthropogenic interference with the climate system.

The remedies available include:

#### A. Civil Remedies

As far as the civil remedies are concerned, the environment related matters in the civil law can be dealt under the law of torts. The law of torts is an unwritten law that is developed mainly due to the judicial precedents. The law of torts contains the provisions of nuisance, negligence, trespass, strict liability and absolute liability to deal with the cases of environment pollution. The aggrieved party can approach the Civil Court to avail the remedies like injunction, damages or compensation, specific restitution etc.

An injunction is a court order stopping the defendant from doing, repeating, or continuing a wrongdoing. In most cases, an injunction is used to force someone to do or not do something.

For instance, if your neighbour pollutes your neighbourhood by bringing filthy water into your home, you can request an injunction by filing a civil case with the civil court. Your neighbour will be warned by the court not to discharge dirty water.

Damages or compensation can be sought based on the plaintiff's loss. The court will award the plaintiff reasonable damages to be paid by the defendant.

Specific Restitution- A person who has been wrongfully deprived of immovable or specific movable property has the right to recover the immovable or movable property, depending on the circumstances.

#### B. Criminal Remedies

The Indian Penal Code, 1860<sup>281</sup>, The Code of Criminal Procedure, 1973<sup>282</sup>, incorporates various provisions like public nuisance, adulteration of food, drink and drugs. Apart from this, the code contains provisions to deal with the protection of the environment such as fouling of the water under section 277<sup>283</sup> and air pollution under section 278<sup>284</sup> and provides punishment in such situations. CrPC.1973, lays down the procedure and remedy in case of public nuisance under section 133<sup>285</sup> of the code wherein the executive magistrate has the power to pass additional order to remove public nuisance based on the report of the police officer or as he may think fit in such matters.

#### C. Constitutional Remedies

The Indian Constitution did not include any specific provision regarding environmental protection at first. However, new provisions for environmental preservation and protection were added to the Indian Constitution in 1976. This amendment was enacted following the 1972 Stockholm Conference, which was the first international conference to address the protection of the environment. The two new constitutional provisions namely, Art. 48A and Art. 51A (g) were inserted by the 42nd Constitutional (Amendment) Act, 1976.

The State is specifically obligated to protect and improve the environment under Art. 48A. which imposes a duty on the state to protect and improve the environment. Art. 51A (g) stipulates that protecting the environment is a fundamental duty of every citizen. The Constitution provides a number of additional provisions to facilitate citizens'

<sup>281</sup> The Indian Penal Code, 1860, No. 45, Acts of Parliament, 1860 (India).

<sup>282</sup> The Code of Criminal Procedure, 1973, No. 2, Acts of Parliament, 1974 (India).

<sup>283</sup> The Indian Penal Code, 1860, § 277, No. 45, Acts of Parliament, 1860 (India).

<sup>284</sup> The Indian Penal Code, 1860, § 278, No. 45, Acts of Parliament, 1860 (India).

<sup>285</sup> The Code of Criminal Procedure, 1973, § 133, No. 2, Acts of Parliament, 1974 (India).

access to justice, in addition to imposing a duty on the State and citizens.

The writ jurisdiction under Art. 32 and Art. 226 and also the Public Interest Litigation has proved to be a pioneer in ensuring access to justice in environment related cases.

## V. JUDICIAL PRONOUNCEMENTS

In *MC Mehta v. UOI*<sup>286</sup>, the Court ordered prevention of vehicular pollution caused by traffic vehicles in the National Capital Territory, New Delhi.

Again, the Court in *MC Mehta v. UOI*<sup>287</sup>, issued the orders to protect the most historical monuments Taj Mahal against environmental pollution.

In *Indian Council for Enviro Legal Action v. UOI*<sup>288</sup>, and *Vellore Citizens Welfare Forum v. UOI*<sup>289</sup>, AIR 196 SC 2715, the court directed an assessment of the damage to the ecology and environment and imposed compensation on polluters. These cases established the polluter pay and precautionary principles as a part of our legal system.

The assumption that natural resources like water, air, the sea, and forests are gifts from nature and should be freely available for everyone to use is the foundation of public trust. There can be no private ownership of these resources. In *MC Mehta v. UOI*, (1997) 1 SCC 388<sup>290</sup>, the Supreme Court found that the river's flow was diverted for ecotourism purposes. The doctrine of public trust has been declared the law of the land. The court established the doctrine of public trust as a central tenet of sustainable development and ruled that the state is a trustee for the protection of nature and natural resources.

## VI. CLIMATE CHANGE IS ANTHROPOGENIC: ASSERTION

<sup>286</sup> *MC Mehta v. UOI*, 1994 1 Supp. SCC 434.

<sup>287</sup> *MC Mehta v. UOI*, (1992) 2 SCC 353.

<sup>288</sup> *Enviro Legal Action v. UOI*, AIR 1996 SC 1446.

<sup>289</sup> *Vellore Citizens Welfare Forum v. UOI*, AIR 196 SC 2715.

<sup>290</sup> *MC Mehta v. UOI*, (1997) 1 SCC 388.

Thus, we see that all these laws and protocols (such as KYOTO Protocol, MONTREAL Protocol, etc, have been formulated keeping humans at the locus-standi- either individually or in collective form of Nations and Organizations to curb their activities and punish the defaulters. Had the humans, i.e., the anthropogenic factors not been responsible for climate change, then there was no need to formulate such rules and regulations for the nature. Certainly, the sun, the moon, the volcanoes etc., are not going to follow the sections and the articles.

Hence, it is clear that Human Beings are at the core of the Climate Change crisis and hence, it is anthropogenic.

The prime facie example would be the pandemic wherein the human activities were at a significant standstill. Many countries witnessed a remarkable depletion in greenhouse gases in the year 2020.

## VI. CONCLUSION

The incessant population and the ever-increasing industrialisation and exponential urbanisation are the central culprit for climate's continuous wallowing in a deleterious behaviour. As said, "*Nature has enough for man's need but not for man's greed*",

The curb of climate crisis lies in shifting the paradigm from denial to acceptance of locus of responsibility on the human because at the end climate change is nothing but a deadly anthropogenic cocktail.

## REFERENCES

### Article/Journals

1. Anne K Armstrong, *CLIMATE CHANGE ATTITUDES AND KNOWLEDGE, A GUIDE FOR EDUCATORS*, CORNELL UNIVERSITY PRESS 21-24 (2018), <http://www.jstor.org/stable/10.7591/j.ctv941wjn.6> (last visited Feb. 26, 2023).
2. Anne K Armstrong, *CLIMATE CHANGE SCIENCE, THE FACTS*, CORNELL UNIVERSITY PRESS 21-24 (2016)



<http://www.jstor.org/stable/10.7591/j.ctv941wjn.5>.  
(last visited Feb. 26, 2023).

3. Anne K Armstrong, COMMUNICATING CLIMATE CHANGE: A GUIDE FOR EDUCATORS, *Cornell University Press* 59-68 (2014)  
<http://www.jstor.org/stable/10.7591/j.ctv941wjn>  
(last visited Feb. 26, 2023).

4. Macpherson, C.C. CLIMATE CHANGE MATTER, *JOURNAL OF MEDICAL ETHICS* 288-290 (2014),  
<http://www.jstor.org/stable/43282982> (last visited Feb. 26, 2023).

5. Mark Stafford Smith, RESPONDING TO GLOBAL ENVIRONMENTAL CHANGE CHANGE!: COMBINING ANALYTIC APPROACHES WITH STREET WISDOM 29-42 (2015)  
<http://www.jstor.org/stable/j.ctt16wd0cc> (last visited Feb. 26, 2023).

#### Websites

1. UNITED NATIONS,  
<https://www.un.org/en/climatechange/what-is-climate-change> (last visited Feb. 26, 2023).

2. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), <https://www.ipcc.ch/>, (last visited Feb. 26, 2023).

3. EPG: ENVIRONMENTAL SCIENCES,  
<https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=0Xvq9yUM2ILDrJ07FvIArQ==>

4. <https://www.jstor.org/>

5. <https://www.sconline.com/>