

PRECAUTIONARY PRINCIPLE OF SUSTAINABLE DEVELOPMENT DURING COVID-19 PANDEMIC

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Abstract

India, a democratic country, is promoting sustainable development through the "Precautionary principle" to promote better health and environmental decisions. This principle arises from the lack of indefinite scientific knowledge and uncertainty, making it a controversial debate in ecological management. The Covid-19 pandemic has highlighted the impact of the virus on the environment, with potential consequences due to deforestation and toxic genetic material introduction into the food chain. The "Rio Declaration" on Environment and Development outlines the principle as a core principle of environmental legislation. This research examines the principle's emergence in India and the inability to implement precautionary steps to address climate change. The research will explore the complex interaction between biodiversity loss, climate change, and increased pandemic incidence. The burden of proof shifts to lawmakers in determining a permissible vulnerability relation, with the key challenge being determining which criteria should use when scientific evidence partially establishes and considers stakeholders' best interests.

Keywords: Precautionary Principle, Covid-19, Health-crisis, Environmental Laws, Constitution.

Introduction

Earth's resources are currently used and manipulated by people for their benefit. Now, human interaction with biodiversity contributes to environmental dangers. Humans are subject to illnesses such as COVID-19, resulting in great suffering and loss. The COVID-19 pandemic has raised awareness of the importance of precaution in human interactions without the environment and pushed for applying the precautionary principle throughout all walks of life.

To prevent causing humankind irreparable harm throughout the aftermath of a pandemic, where Indian regulations must change. The development of the precautionary principle in India and

the lack of action to stop climate change emphasizes. Furthermore, there is a complicated relationship between pandemics, climate change, and biodiversity loss. Pandemics further exacerbates by environmental deterioration and rising temperatures. To avoid potential pandemics in the future, the precautionary principle ought to include climate change policy alternatives. Genetically modified crops have for commercial purposes, but there is a need to control production and circulation and build a biosafety framework.

During a pandemic, indigenous peoples and their traditional knowledge endangering. Big companies embrace practices disregarding indigenous peoples' contributions, jeopardizing their very existence and valued knowledge. As a result, preventive measures and regulatory systems must implement to safeguard their cultural and financial rights. The precautionary principle ("Principle"), the cornerstone in environmental laws, maintains that when there's any scepticism regarding the detrimental environmental effects of any operation, it is preferred to correctly assess every action rather than waiting for unfavourable outcomes. The research presented here makes suggestions for recovery following a pandemic program to guarantee human-nature coexistence for the long term.

Research Methodology

The research adopted by the researchers is purely Doctrinal, without the researchers aiming to explore precautionary concepts based on numerous environmental law reviews and scientific publications. The researcher used the doctrinal research approach, in which the contributors acquired all material linked to the precautionary principle due to Covid-19 from many different publications, journals, e-books, and other secondary sources. As a result, the researcher has to pinpoint loopholes in the law by offering relevant cases and judicial precedents.

Research Objectives

The ultimate goal of doing this research is

- It acquires an in-depth account of the function of the precautionary principle in the Indian legal system.
- It discovers deficiencies in legislation that safeguard the precautionary principle or its significance within the legal system.
- The Precautionary Principle, which proved essential during Covid-19, must be understood to understand the environmental laws

Prevention of environmental changing issues

COVID-19, climate change, and habitat loss are the three greatest environmental challenges the world and its inhabitants are now experiencing. All of them have varying effects on human existence, and the root cause is the unfettered economic plundering of nature. Although these problems exacerbate through human activity, their solutions rely on individual engagement. There have been several negative outcomes as a result of global warming. The upsurge in sea level raises the likelihood of torrential rains, and weather extremes that threaten crop yields are two of the most visible effects of climate change, which has had an unfathomable influence worldwide. Another issue that demands immediate attention is biodiversity loss,¹ especially in the aftermath of the outbreak. During recent decades, a growing percentage of ailments have been passed from humans, the most recent being COVID-19. Disease transmission occurs due to intensifying degradation, accounting for 31% of all incidences. It has been stated that all pandemics evolved in living creatures (primarily wildlife) and that their formation results from interactions involving humans and livestock. In the long run, exposure to tiny particulates in dirty air decreases human immunity, according to Research. As a result, the number of fatalities among COVID-19 patients has increased. In a nutshell, pollution levels lead to global warming even while having other adverse ramifications during the outbreak. While making policy decisions on responding to pollutants, incorporating preventative measures to address environmental challenges would be beneficial. Countering global climate change may lower the risk of pandemics. Such actions include:

- Promoting the use of natural vegetation.
- Minimizing distribution networks by supporting more local eco-friendly companies.

As a result, there is a strong correlation between global warming and outbreaks.

Furthermore, the research found that when worldwide temperatures rise in response to climate change, ice in the Northern area will thaw, releasing a slew of hazardous species. Bacteria and viruses' humans have not encountered and are assumed to have been eliminated or preserved are examples of such species. The harmful effects of these microbes on humans are unreliable, but specialists have concerns that they could spread contagious, life-threatening conditions, including COVID-19, ² which pose a hazard. On the contrary extreme, a group of experts says

¹ (NBSAP) National Biodiversity Strategy and Action Plan - FEDERAL REPUBLIC OF SOMALIA - NBSAP Forum, <https://www.readkong.com/page/nbsap-national-biodiversity-strategy-and-action-plan-1891941> (last visited Feb 13, 2023).

² Anthony Capon, Fiona Armstrong & Ro McFarlane, *Coronavirus is a wake-up call: our war with the environment is leading to pandemics*, THE CONVERSATION (2020), <http://theconversation.com/coronavirus-is-a-wake-up-call-our-war-with-the-environment-is-leading-to-pandemics-135023> (last visited Feb 13, 2023).

that there is an amplification effect, which indicates that as biodiversity increased, so did the danger of transmission of infection.³ According to another source, places with biodiversity⁴ potentially be a source of virus infections. Several experts & politicians have denounced environmental issues as a myth and are resistant to actions to save the world.

Regulatory Framework

Over here, under the constitution of India as decided in various judicial precedents concerning Art.48(A) & Art.51A(g), which talks about the wider protection of the ecosystem of the environment thus their several provisions arrive those Air Act 1987⁵, water Act, EP Act 1986 and CBD provisions. The Air and Water Act aims to prevent climate change by controlling greenhouse gas emissions and preserving air quality. The Central and State Pollution Control Boards (CPCB) monitor air pollution issues and establish air pollution control areas in regions with heavy industrial activity. However, the current statutory framework faces problems such as increased staffing, ineffective criminal penalties, overburdened Indian Courts, and the reluctance of industries to implement clean technology due to associated costs.

The EP Act aims to address these issues, focusing on environmental protection and development. It seeks to conserve and safeguard biological diversity but has yet to materialize as specified in the law. The EIA⁶ needs help in producing accurate reports, with ongoing judicial conflicts, conflict of interest in Expert Appraisal Committees, and attempts to adapt its mechanical techniques to new locations.

The NBDA expects to generate approximately Rs. 10,000 crores per year due to improper implementation of the BD. Act rules.⁷ The Biodiversity Management Committee is limited to establishing biodiversity registrations to record relevant expertise and bioengineering.

Judicial Precedents

In the case of the “*Indian Council for Enviro Legal Action v. Union of India*”⁸ (1996), the Supreme Court of India determined that factories' chemicals were responsible for the most

³ Biodiversity loss is hurting our ability to combat pandemics | World Economic Forum, <https://www.weforum.org/agenda/2020/03/biodiversity-loss-is-hurting-our-ability-to-prepare-for-pandemics/> (last visited Feb 13, 2023).

⁴ Moreno Di Marco et al., *Opinion: Sustainable development must account for pandemic risk*, 117 PROC NATL ACAD SCI U S A 3888 (2020).

⁵ A1981-14.pdf, <https://legislative.gov.in/sites/default/files/A1981-14.pdf> (last visited Feb 14, 2023).

⁶ Kanchi Kohli and Manju Menon, ‘Environmental Regulation in India’ (2015) 50(50) Economic & Political Weekly 20, 21

⁷ in-nbsap-other-en.pdf, <https://www.cbd.int/doc/world/in/in-nbsap-other-en.pdf> (last visited Feb 13, 2023).

⁸ Indian Council For Enviro-Legal ... vs Union Of India And Ors.Etc on 13 February, 1996, <https://indiankanoon.org/doc/1818014/> (last visited Jun 26, 2023).

serious situation in Bichhri, the village in Udaipur District. Such facilities' unmitigated hazardous effluent poisoned groundwater, emitting pollutants into the soil and rendering it unfit for agriculture. The Court referred to “*Sections 3 and 5 of the Environment Protection Act of 1986*” or urged the Central Government to isolate chemical businesses from other sectors and meticulously supervise operations for possible contamination. The Court also proposed the establishment of environmental tribunals to give justice and ecologically responsible alternatives to aggrieved parties.

The Supreme Court of India gave directives regarding “*MC Mehta vs. Union of India (1988)*”⁹ for the leather industry on the shores of the Ganga in Kanpur. The “*Environment (Protection) Act of 1986 and the Water (Prevention and Control of Pollution) Act of 1974*” also suggested as the river's major duty for preserving the pristine condition of the Ganga and its adjacent territories lay with Nagar Mahapalika and Municipal Boards. Throughout this instance, the complainant alleged that the tanning facilities generated public annoyance and threatened the natural world. The Supreme Court suggested the proper authorities avoid additional water contamination. Kanpur Nagar Mahapalika should enact suitable bylaws to avoid Ganga river pollution. The initial action is to expand the sewage capacity in Kanpur's labour colonies. The Supreme Court ordered that the practice of tossing corpses and semi-burnt bodies into the Ganga be discontinued. Industries must adapt to trade effluent treatment or risk having their licenses cancelled. The Central Government should require environmental studies at colleges and universities to develop ecological consciousness.

The “*Bio-Diversity Act 2000 and Bio-Diversity Rules 2004*” were not obeyed in the strictest sense in “*Chandra Bhal Singh v. Union of India & Ors.*”¹⁰ The Court discovered that Biodiversity Management Committees and Peoples Biodiversity Registers needed to keep current and up to date, leaving residents in the region illiterate in prospective harvesting constraints. The committee ordered all states to have regular monthly meetings and levied a 10-lakh rupee monthly penalty for noncompliance beginning on February 1, 2020.

“*Shailesh Singh v. Hotel Holiday Regency, Moradabad, and Others*”¹¹ The issue is the unlawful removal of underground water and its polluted condition due to natural resources'

⁹ M.C. Mehta vs Union Of India & Ors on 12 January, 1988, <https://indiankanoon.org/doc/59060/> (last visited Jun 26, 2023).

¹⁰ The Jharkhand Biodiversity Board vs Chandra Bhal Singh on 28 October, 2020, <https://indiankanoon.org/doc/165322084/> (last visited Jun 26, 2023).

¹¹ Shallesh Singh vs Hotel Holiday Regency on 31 August, 2016, <https://indiankanoon.org/doc/195671138/> (last visited Jun 26, 2023).

excessive use. The Tribunal pointed out that India consumes more than 25% of the world's accessible groundwater. Overexploitation is increasing the depletion of subsurface water, leading to increased soil salinity and triggering water shortage in locations with insufficient surface water, such as areas suffering from drought. It also has an impact on river E-flow. The Tribunal asked the “Ministry of Environment and Climate Change to establish a panel of experts to investigate the procedures needed to avoid groundwater depletion, develop a system for tracking to prevent illegal mining of groundwater, and monitor the exploitation of groundwater circumstances.”

The substantive point of legality facing the Tribunal in “ *Central Pollution Control Board v. State of Andaman and Nicobar & Ors.* ”¹² It concerned the appropriate application of the Plastic Waste Management Rules, 2016. The Tribunal ordered a structure and instructed the MoEF&CC to provide a report on it. It also instructed the CPCB to produce a report on its compensation scheme. It urged the government to control unregistered plastic producers and recycling units to halt production and plastic bags of composition 50 microns or less to be stocked/manufactured/sold/consumed. It also instructs governments not to burn plastic garbage when it's open. Failing that, they must file a compliance report or incur a fine of Rs. 1 lakh.

Biosafety in India

Genetic engineering (GM) has become an issue of contention worldwide, with supporters and detractors claiming it may boost yield, grow crops in salty soils, and offer pest and bug protection. The most convincing case for GM crops is that they can improve outcomes significantly, supported by mounting research. In some countries, growers see up to a thirty percent rise in output. GM foods are also suitable for places with high temperatures and droughts, which is significant for nations struggling with land scarcity and low crop yields. However, GM technology faced particularly strong criticism worldwide, including worries regarding potential adverse effects on persons and ecosystems.

Regulations for Biosafety

For the assessment and authorization of GM technology, the Indian biotechnology regulation framework comprises several ministries and organizations. The “*EP Act is the main source law used in India in regulating biosafety, based on sections 6 and 18*” laying the groundwork

¹² Central Pollution Control Board v. State Of Andaman & Nicobar And Others, National Green Tribunal, Judgment, Law, casemine.com, [HTTPS://WWW.CASEMINE.COM](https://www.casemine.com), <https://www.casemine.com/judgement/in/5dcf3b3346571b7a2b3ade2e> (last visited Jun 26, 2023).

for developing biosafety guidelines. However, the regulatory structure could be more optimal since it needs more public engagement and input from social scientists and non-governmental organizations. The grouping of key regulating organizations, the “*Review Committee on Genetic Management (RCGM)*” and the “*Genetic Engineering Appraisal Committee (GEAC)*” need to be revised in social scientists and professional nonprofit organizations adept at grasping the complexity and making essential contributions. The “*Hazardous Microorganisms Rules, 1989*”, have no opportunity for public participation, resulting in a trust imbalance between the government and the people.

In addition, the requirements fail to incorporate prior consent that is informed, an essential element that makes up the “*Cartagena Protocol*”. The biosafety regulatory framework's organizational framework has been criticized, with the division of duty between RCGM and GEAC remaining a subject of contention. The Rules provide State Governments enormous discretion in establishing state and district-level committees, indicating an important area for improvement in the inquiry method carried out by these regulatory organizations. This failure breaches the state's obligation to risk management under "Article 16 of the Cartagena Protocol." The "Food Safety and Standards Organisation of India (FSSAI)," the primary organization in charge of commercializing genetically modified (GM) and processed foods, requires more powerful equipment as well as research assistance for food science and risk assessment. Despite protests, the "FSSAI" has not enacted genuine legislation governing GM food labelling.

Precautionary Principle-Overview

The precautionary principle is concerned with the foreseeability of environmental harm. As a result of this injury, preventative measures are taken to avoid dangerous conduct. It covers both actual threats and prospective damage.¹³ Such a theory gets implemented in many environmental devices. It might be seen as the old maxim that being cautious rather than disappointed is safer. According to “*Agenda 21, the necessity to safeguard the environment by deploying the precautionary principle is paramount, and it is the government's responsibility to employ it to the best of its ability.*” *We should take “cost-effective remedies instead of creating excuses when there is no scientific certainty and irrevocable hazards. Prevention is utilized when danger is deliberately analyzed, managed, and communicated.*” Scientific judgment may be unpredictable, which decision-makers must assess in terms of logic. It may

¹³ H. Sterling Burnett, *Understanding the Precautionary Principle and its Threat to Human Welfare*, 26 SOCIAL PHILOSOPHY AND POLICY 378 (2009).

decide the degree of permissibility by looking at numerous factors, including scientific methodology evaluation. Evaluation, in addition to the geopolitical aspect, involves its concept's social favourability rating. When examining the precautionary principle from a social-political standpoint, it is possible to argue that advanced technologies are inadequate, and the level of danger entailed remains high.¹⁴ Environmental, health, and economic elements all influence the risk rate. Reducing environmental destruction might incur significant capital expenditures, like remedial expenses and reputational damage. While we engage in practices that degrade the environment, there is no long-term sustainability; alternatively, we should do long-term development and research. It should make it possible for lesser economic exposure & better environmental effectiveness. Insurers should look for organizations that enhance ecological sustainability when investing. It must perform studies and research to create more sustainable products to help humanity in the foreseeable future.

A. Explanation of Precautionary Principle

According to “*Art. 15 of Rio Declaration 1992*”, It argues that to conserve the environment. Each state must use the concept to the greatest of its ability. When there is a risk of irreparable and significant damage, an absence of complete scientific evidence should not be used to delay preventative measures.

B. Precautionary Principle and Indian Law

The Indian judiciary thoroughly endorses the Precautionary Principle. In its decision in “*Vellore Citizens Welfare Forum v UOI*”¹⁵, the Court said sustainable development is an urgent imperative. The Court emphasized the need to agree between financial development and environmental conservation. The Court disregarded the conventional wisdom that environment and development are diametrically incompatible. The Court also examined the evolution of sustainable growth at a global scale. The Court cited the “*Stockholm Declaration of 1972, Caring for the Earth, 1991, the Earth Summit, which was and the Rio Declaration of 1992*”, ruling that the Precautionary Principle and the Polluter Pays Principle are required elements of Sustainable Development.

Conceptual Framework Relevance in Covid-19

The concept of uncertainty has now become entrenched with the onset of growth and

¹⁴ Mike Feintuck, *Precautionary Maybe, but What's the Principle? The Precautionary Principle, the Regulation of Risk, and the Public Domain*, 32 JOURNAL OF LAW AND SOCIETY 371 (2005).

¹⁵ AIR 1996 SC 2715.

expansion, and it could claim that danger should praise. Without such a perspective, there would be fewer chances to make wise choices and no way ahead. Contrastingly, there's the burden of ambiguity, and the danger of far more damage remains. The only way to prevent this is to employ caution when analyzing such actions. The effective strategy is to establish the right balance between risks and precautions. Research illustrates further how the precautionary principle and its constituents might establish an equilibrium situation. When such a concept is effectively used, it does not hinder the outcome. Additionally, the strategy further ensures that risk variables consider, which leads to increased productivity. International law exists to mitigate future violations, which allude to industrial success, with a wider basis than environmental regulation.

The conference in Stockholm once more provided a structure for embracing multiple values which have since become prevalent in the global environmental sector. According to the precautionary principle, every construction site must halt and limit if it causes significant long-term ecological harm. It is critical to establish whether or not the project development is sustainable. The Corona Virus pandemic exposed inadequacies in national and international systems, showing the significance of preparing systems to deal with worldwide issues.

Impact of Covid-19 on the Environment

The COVID-19 pandemic contributed immensely to human life and the global economy, with the virus's death toll haunting survivors. The influenza virus's lethality and continual changes offer a serious challenge to the medical community and the government. Various methods, including partial or total lockdowns, have influenced the global reaction to the pandemic, substantially boosting air and water quality. The Central Pollution Control Board (CPCB) reported that during the lockdown, the levels of SO₂, NO₂, and PM emissions in 115 Indian cities were reduced significantly. The air quality index (AQI) of around 78% of towns was satisfactory or 'good,' compared to 44% of cities before the lockdown. The lockdown also dramatically decreased municipal solid waste (MSW) generation, with Chennai's daily MSW generation decreasing by 28%, Nagpur's by 25%, and Pune's daily MSW volume reducing by 29%. However, it is critical to address COVID-19's detrimental ecological impacts. The coronavirus pandemic killed thousands of people not just in India but also across the world. During the pandemic's peak, the entire global healthcare system collapsed, and the trash generated in treating COVID-19 is extremely infectious. Many individuals in India dropped sick corpses in rivers or buried them in river sand, making bio-medical waste disposal a major issue.

The National Green Tribunal (NGT) has been instrumental in resolving the matter. It addressed an issue of efficient adherence with the “*Bio-Medical Waste Rules, 2016 (BMW Rules)*” for BMW management that resulted from COVID-19 illness management. The NGT determined that remedial action was required to protect public health and the environment, given the probable negative impact of transmissible trash on health workers, professionals, and other concerned employees.¹⁶

The NGT issued guidelines on various issues related to COVID-19 in its order dated 20-07-2020, such as more isolation hospitals, proper management of specimens collected from COVID-19 patients, appropriate administration of home-care facilities or quarantines camps/homes, responsibilities of urban local bodies in regards to gathering and disposing of bio-medical waste, and how to handle wastewater.

Conclusion

The National Green Tribunal (NGT) has played an important role in resolving environmental disputes in India, particularly on river cleaning and pollution problems involving the Ganga and Yamuna. The Tribunal has imposed substantial penalties and environmental compensations on public bodies for failing to perform their statutory duties and on corporations for causing environmental and ecological damage. To strengthen the administration of justice, the NGT has additionally established committees of experts from academic institutions throughout India. Research shows an unambiguous connection between Covid-19 and air pollution, with particulate matter from sources such as smokestacks and fire accounting for 15% of global Covid-19 deaths. However, in the face of High Court authorities, the NGT's competence tends to be weakened, which renders it less productive. The recent NGT gas spill in Vizag, Andhra Pradesh, claimed hundreds of lives and harmed the environment. The Supreme Court of India refused to intervene in NGT decisions, emphasizing the Tribunal's exemplary performance in providing justice to the "have-nots." The NGT's activities highlight the power of applying preventive principles, and polluter pays principles to any location, date, or time. The National Green Tribunal has made tremendous progress in balancing economic and ecological concerns.

¹⁶ In Re: Scientific Disposal of Bio-Medical Waste arising out of COVID-19 treatment- Compliance of BMW Rules, 2016”, Original Application No. 72/2020.