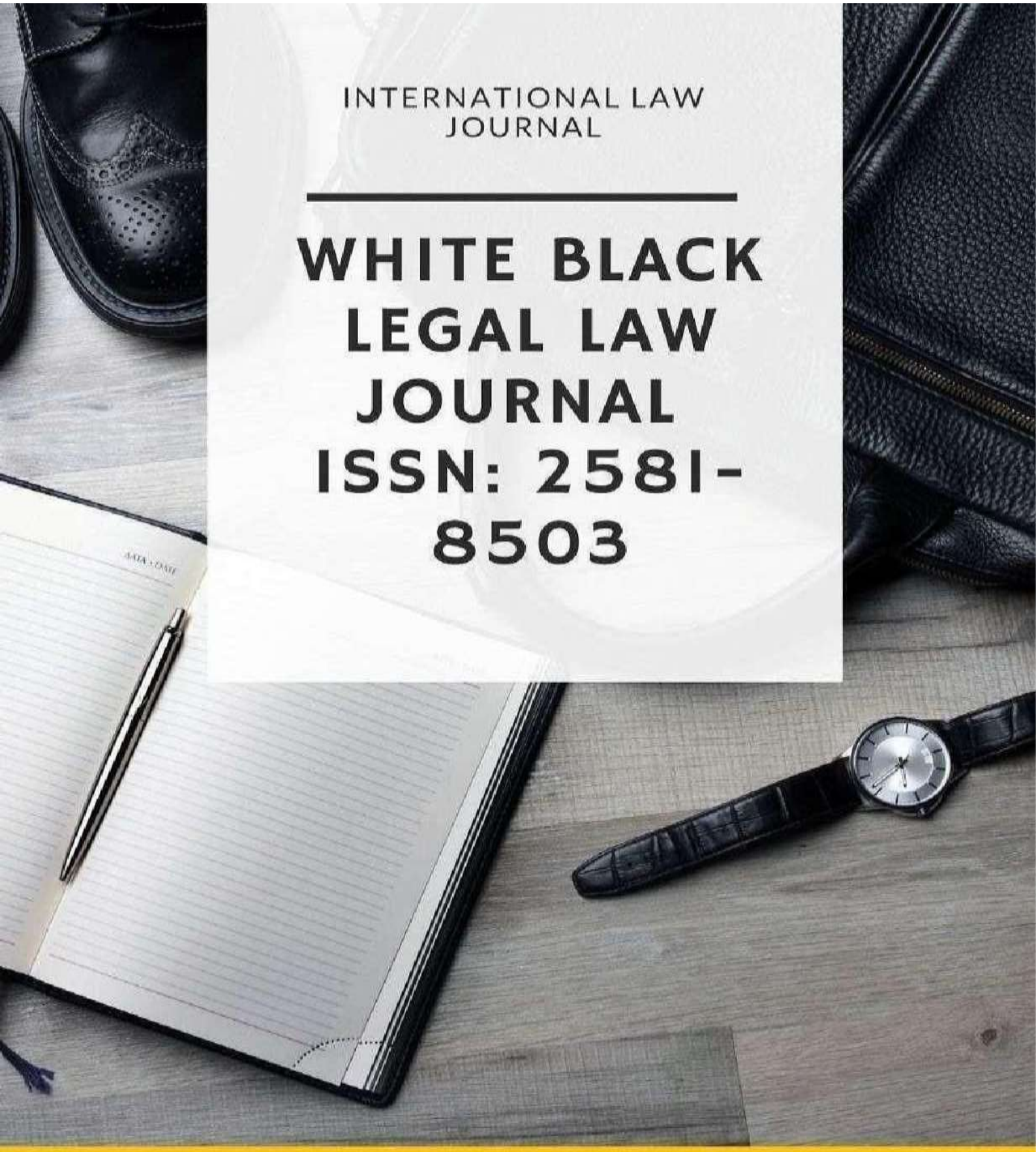

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## *ABOUT US*

WHITE BLACK LEGAL is an open access, peer-reviewed and 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

# ENVIRONMENTAL LAWS VS ENERGY LAWS: A COMPARATIVE ANALYSIS OF THE SIMILARITIES AND DIFFERENCES

AUTHORED BY - BASKAR BOLLIPALLI

## ABSTRACT

Environmental laws and energy laws have always been a topic of debate among policymakers, legal scholars, and environmentalists. While environmental laws aim to protect the environment and natural resources, energy laws are designed to ensure a reliable and secure energy supply. The Indian government has implemented several laws and policies to protect the environment and promote renewable energy in recent years. This paper provides a comparative analysis of environmental laws and energy laws generally as well as in India to understand the effectiveness of the legal framework governing these areas and identify areas where improvements can be made. The Environmental Protection Act, Wildlife Protection Act, and Water (Prevention and Control of Pollution) Act are the major environmental laws in India, while the Electricity Act, National Tariff Policy, and National Electricity Policy govern the energy sector. Despite the efforts made by the government, India still faces several environmental and energy challenges, including air pollution, water pollution, deforestation, high cost of renewable energy, and limited availability of energy storage solutions. The paper highlights the need for the Indian government to take bold steps to enforce environmental laws and promote renewable energy to ensure a sustainable and secure energy future for its citizens while protecting the environment for future generations. The paper concludes that both environmental laws and energy laws are important for ensuring a sustainable future, and that there is a need to strike a balance between the two.

## INTRODUCTION

The world is facing significant challenges related to the environment and energy. Climate change, pollution, and natural resource depletion are some of the most pressing environmental issues,while energy security and affordability are the key energy challenges. To address these issues, policymakers

have developed a range of laws and regulations, including environmental laws and energy laws. Environmental laws are designed to protect the environment, including air, water, and land, and natural resources, such as forests and wildlife. These laws aim to prevent pollution, preserve natural resources, and promote sustainable development. Energy laws,on the other hand,are designed to ensure a reliable and secure energy supply, including the production, transportation, and consumption of energy. Energy laws also address issues related to energy efficiency, renewable energy, and energy conservation. While environmental laws and energy laws share some similarities, they also have significant differences. For example, environmental laws are primarily focused on protecting[1] the environment and natural resources, while energy laws are focused on ensuring a reliable and secure energy supply. These differences can create tensions and conflicts between the two laws, as policymakers and stakeholders struggle to strike a balance between environmental protection and energy security. This research paper presents a comparative analysis of environmental laws and energy laws, examining the differences and similarities between the two laws, and highlighting the challenges and opportunities they present for policymakers and environmentalists.

## ENVIRONMENTAL LAWS

Environmental laws are a set of laws and regulations that aim to protect the environment and natural resources. These laws cover a wide range of issues, including air quality, water quality, land use, waste management, and natural resource conservation. Environmental laws are enacted by governments at the local, state, and federal levels, and are enforced by a range of agencies, including[2] the Environmental Protection Agency (EPA) in the United States and the European Environment Agency (EEA) in Europe. The main objective of environmental laws is to prevent pollution and to promote sustainable development. To achieve this objective, environmental laws set standards for pollutants and emissions, establish limits on resource extraction and land use, and promote sustainable practices, such as recycling and energy efficiency. Environmental laws also provide for penalties and fines for violations, and can even impose criminal liability in some cases. One of the key strengths of environmental laws is their flexibility. Environmental laws can be adapted to meet the needs of different regions and ecosystems, and can be updated as new scientific research emerges. For

[1] Environmental Protection Act, 1986. (n.d.). http:// moef.gov.in/wpcontent/uploads/2017/03/The-Environment-ProtectionAct-1986.pdf

[2] Wildlife Protection Act, 1972. (n.d.). https://www.moef.gov.in/wpcontent/uploads/2019/09/Wild-Life-Protection-Act1972-amended-2003.pdf

example, the Clean Air Act in the United States was amended in 1990 to address the issue of acid rain, and the Montreal Protocol was enacted in 1987 to phase out the use of ozone-depleting substances.

## ENERGY LAWS

Energy laws are a set of laws and regulations that govern the production, transportation, and consumption of energy. These laws cover a wide range of issues, including energy efficiency, renewable energy, energy conservation, and energy security. Energy laws are enacted by governments at the local, state, and federal levels, and are enforced by a range of agencies, including the Department of Energy in the United States and the International Energy Agency (IEA) in Europe. The main objective of energy laws is to ensure a reliable and secure energy supply, while also addressing issues related to energy efficiency, renewable energy, and energy conservation. Energy laws also aim to promote the development of new energy technologies, such as advanced nuclear energy and carbon capture and storage. Energy laws have a significant impact on the energy sector, as they can influence the cost, availability, and reliability of energy sources[3]. For example, energy laws can provide incentives for the development of renewable energy, such as tax credits or feed-in tariffs, which can increase the share of renewable energy in the energy mix. Energy laws can also regulate the use of fossil fuels, such as setting emissions standards for power plants or implementing carbon pricing mechanisms, which can reduce greenhouse gas emissions.

## ENVIRONMENTAL LAWS VS ENERGY LAWS

While environmental laws and energy laws share some common goals, they also have significant differences. One of the main differences between the two laws is their focus. Environmental laws are primarily focused on protecting the environment and natural resources, while energy laws are focused on ensuring a reliable and secure energy supply. This difference in focus can create tensions and conflicts between the two laws, as policymakers and stakeholders struggle to strike a balance between environmental protection and energy security[4]. Another difference between environmental laws and

[3] Water (Prevention and Control of Pollution) Act, 1974.http://www.indiaenvironmentportal.org.in/files/file/Water%20(Prevention%20and%20Control%20of%20Pollution)%20Act,%201974.pdf

[4] Ministry of New and Renewable Energy.(2021).India Energy Statistics 2021. https://mnre.gov.in/sites/default/files/Indiastatistics2021.

energy laws is their approach to regulation.[5]Environmental laws tend to be prescriptive, setting standards and limits for pollutants and emissions. Energy laws, on the other hand, tend to be more market-oriented, providing incentives and regulations to encourage the development and deployment of new energy technologies. This difference in approach can create challenges for policymakers, as they try to balance the need for regulation with the need for innovation and technological advancement.

**Sustainable Energy:**

Sustainable energy is the provision of energy such that it addresses the issue of the present without bargaining the capacity of future ages to address their issues. Sustainable energy Sources are most often regarded as including all renewable sources, such as solar power, wind power , wave power, geothermal power and tidal - power. It usually also includes technologies that improve energy efficiency. Conventional nuclear power and fusion power may be included, but they are controversial politically due to concerns about waste disposal and the small risks of disaster due to accident, terrorism, or natural disaster.

- Sustainable Energy has two key components: RE and energy efficiency.
- Energy which replenished within a human lifetime and causes no long - term damage to the environment. "- Jamaica Sustainable Development Network.

The efficient use of energy and supplies that are reliable, affordable and less - polluting are widely acknowledged as important, and even indispensable, components of SD. Although perennial debates linger about precise definitions of SD there is growing agreement amongst scholars and practitioners that sustainable development policy relates to three critical elements that need to be treated together: economic, social and environmental.

The case for new energy accords to address the challenge of sustainable energy is premised upon six widely recognized phenomena, including:

- Burgeoning energy demand, especially from the developing world;
- Fearful environmental consequences of using fossil fuels or hydrocarbons as sources of energy;

[5] National Green Tribunal. (n.d.). Retrieved from https://greentribunal.gov.in//

- Finite nature of oil and gas reserves;
- Energy insecurity caused by reliance on oil;
- Unsatisfactory nature of the international legal response to the looming shortage of sustainable energy;
- Cutting down on usage of coal
- Lack of satisfactory technological, legal, economic and social mechanisms currently addressing the issue.

Other links between energy and sustainable development are explored and promoted in clause the integration of energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes ; the development and dissemination of alternative energy technologies with the aim of giving a greater share of the energy mix to renewable energies and improving energy efficiency; diversifying energy contribution by developing superior, cleaner, efficient, reasonable and cost-effective energy technologies, and technology transfer to developing countries at reasonable price; and establishing policy and" regulatory frameworks which create a level playing field between new and existing energy sources. Finally, governments are encouraged to improve the functioning of national energy markets in such a way that they support sustainable development, overcome market barriers and improve accessibility. An important aspect of the drive towards energy and sustainable development involves the increase in the use of renewable energy resources.

## INDIAN CONSTITUTION AND RENEWABLE ENERGY

Renewable energy is not a specific item in the constitution legislative list. Electricity is a concurrent subject Entry 38. It is pertinent to note that electricity includes power generated from conventional as well as non conventional energy sources. Parliament under Entry 33 of list III has the legislative competence on subjects related to trade and Commerce, fixation of rate and price and the production, supply and distribution of the products of an industry where it deems fit to be in the public interest. Also, the states legislature is competent to provide for levy of surcharge on electricity unless and until it is not in conflict with the central act. Solar or wind energy do not under come under any specific entries of the seventh schedule and hence Parliament can make laws by using entry 97, list I read with article 248. Non-conventional sources of energy are mentioned in Item 15 of the 11th schedule. Item 15 read with Article 243G confers the legislative power on Panchayats as may be endowed by the

state legislature.193The eleventh schedule, which has also been included vide second amendment Act, specifically includes, inter alia, rural electrification including distribution of electricity, non conventional energy sources item 15 and minor forest produce items.

# CRITICAL ANALYSIS OF THE DRAFT RENEWABLE ENERGY ACT, 2015

- National Renewable Energy Act, 2015 delivered by the Ministry of New and Renewable Energy (MNRE) is the most recent and most extensive overhaul of the legislative/regulatory and economic/financial framework governing the renewable energy sector in India.
- The preamble of the act mainly focuses upon "promotion the production of energy from renewable energy sources, in order to reduce dependence on fossil fuels, ensure energy security and reduce local and global pollutants, keeping in view economic, financial, social and environmental considerations, and for matters connected therewith or incidental thereto." and indentified need for appropriate legal, regulatory and institutional framework and also the promotion should be in consonance with the GOI international obligations to reduce the emissions of C02 and GHGs.
- The details about the objective of the Act, as provided in preamble to the Act will provide guidance to the judicial system and policy-makers to ascertain the objectives of the Act, thereby, making it easy to be implemented in practice. It will help in limiting the degree of vagueness and antagonistic interpretations.
- RE (Draft) Act, 2015 showed a critical change in strategy essentially engaged to expand its span, delivering decentralized energy (This will chop down the expense of transmission to huge degree and likewise forestall any loss of energy due to transmission). It is a critical bit of legislation, expected to make an institutional structure with the target of advancing RE in the country .It tries to make National RE Policy to concentrate on R&D

**Judicial Pronouncements**

**Vellore Citizens Welfare Forum v. Union of India[6]** , a case concerning pollution being caused due to the discharge of untreated effluents from tanneries in the state of Tamil Nadu. The Court, referring

[6] Vellore Citizens Welfare Forum v. Union of India, AIR 1996 SC 2715.

to the precautionary principle, polluter pays principle and the new concept of onus of proof, supported with the constitutional provisions of Art.21, 47, 48A and 51A (g) and declared that these doctrines have become part of the environmental law of the country.

The Public Trust Doctrine, evolved in **M.C. Mehta v. Kamal Nath**[7], states that certain common properties such as rivers, forests, seashores and the air were held by Government in Trusteeship for the free and unimpeded use of the general public. Granting lease to a motel located at the bank of the River Beas would interfere with the natural flow of the water and that the State Government had breached the public trust doctrine.

The Patna High Court in **Rajiv Ranjan Singh v.State of Bihar**[8], held that failure to protect the inhabitant of the locality from the poisonous and highly injurious effects of the distillery's effluents and fumes amounted to an infringement of the inhabitants' rights guaranteed under Arts. 14 and 21 read with Arts. 47 and 48-A of the Constitution of India. The Court further directed in this case that if any person has contracted any ailment, the cause of which can be directly related to the effluent discharged by the distillery the company shall have to bear all the expenses of his treatment and the question of awarding the suitable compensation to the victim may also be considered.

**Gabikovo-Nagymaros Project (Hungary v. Slovakia)**[9]

it gave not a definition at least an explanation of what is sustainable development: “Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of risk for mankind - for present and future generations - of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades.

Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. There is a need to accommodate financial development with assurance of nature is appropriately

[7] M.C. Mehta v. Kamal Nath, (1997) 1 SCC 388.
[8] Rajiv Ranjan Singh v.State of Bihar, AIR 1992 Pat 86.
[9] Gabikovo-Nagymaros Project (Hungary v. Slovakia), [1997], I.C.J. Reports, 7

communicated in the idea of sustainable development. In the dissenting opinion, Judge Weeramantry recalls: “It is thus correct formulation of the right of development that the right does not exist in the absolute sense, but it is relative always to its tolerance to the environment. The right to development as thus defined is clearly part of modern International law.

**Australian case of Taralga Landscape Guardians Inc. v. Minister for Planning and RES Southern Cross Pty Ltd** [10],

Objections were raised by a group of residents exercising their third party right of appeal to the Court against the Minister's approval. The residents claimed that the construction of wind turbines in close proximity to their houses would have unacceptable noise, visual and ecological impacts on the area, including harm to local flora and fauna. The Court relied on IPCC and the 2006 Stern Review on the Economics of Climate Change.

The Court also noted that Australia's energy needs have almost doubled in the past two decades and that projected energy needs indicate a further increase of 50% before 2020. Court's decision was based on the concept of intergenerational equity Chief Justice Preston stated that 'the Court's role has enabled the inclusion of a range of conditions founded on the precautionary principle. In the context of the production of energy these two conditions have to be fulfilled:

1) The mining and subsequent use of finite, fossil fuel resources needs to be sustainable so it may be available to future generations and to maintain the environment including the ecological processes on which life depends.
2) as far as practicable, energy sources that produce high Green House Gas emissions should be replaced with energy sources that produce lower Green House Gas emissions, thereby reducing the long-term and cumulative effects of anthropogenic climate change. The stand taken by the Australian courts is very commendable and in sync with the sustainable development and energy requirements of Australia. Sustainability must be a grundnorm or fundamental principle of law in a similar way as freedom, equality, justice and the rule of law. A grundnorm can be expressed in a constitution (in whatever form, written or unwritten), it can be a commonly shared value or it can be a mere assumption. The point is that a grundnorm

[10] Rosemary Lyster, Eric Coonan, “The Precautionary Principle: A Thrill Ride on the Roller Coaster of Energy and Climate Law”, 18 Rev. Eur. Comp. & Int'l Envtl. L.aw 45 (2009).and also see Australian case of Taralga Landscape Guardians Inc. v. Minister for Planning and RES Southern Cross Pty Ltd [2007] NSWLEC 59

"provides navigational coordinates by which politicians, judges and officials can distinguish acceptable from unacceptable public action". These navigational coordinates are missing in our system of environmental law and governance

## CHALLENGES AND OPPORTUNITIES

Environmental laws and energy laws present both challenges and opportunities for policymakers and environmentalists. One of the key challenges is the need to balance environmental protection with energy security. Environmentalists argue that environmental protection should be the top priority, while energy security advocates argue that a reliable and secure energy supply is essential for economic growth and national security. Finding a balance between these two priorities can be difficult, and can require compromise and collaboration between stakeholders. Another challenge is the need to update and adapt existing laws and regulations to address emerging environmental and energy issues. For example, the rise of hydraulic fracturing or fracking, has raised new concerns about water contamination and air pollution. Policymakers and regulators need to update existing laws and regulations to address these issues, while also promoting the development of new technologies that can reduce the environmental impact of fracking[11]. Despite these challenges, environmental laws and energy laws also present opportunities for policymakers and environmentalists. For example, environmental laws can provide a framework for promoting sustainable development and protecting natural resources. Energy laws can provide incentives for the development of renewable energy, which can reduce greenhouse gas emissions and promote energy security. In addition to the challenges and opportunities outlined above, there are also ethical considerations that come into play when analyzing environmental laws versus energy laws. One such ethic is consideration the issue of intergenerational equity. The impact of environmental degradation and climate change will be felt for generations to come, and as such, current policies must take into account the interests and rights of future generations. This means that policymakers must prioritize the long-term sustainability of the environment and energy systems, rather than short-term economic gains. Another ethical consideration is the issue of environmental justice. Environmental degradation and pollution often disproportionately affect marginalized and vulnerable communities, such as low-income neighbor hoods and communities of colour. Energy laws and environmental laws must take into account these

[11] Envi ronmental Protection Act, 1986. http://moef.gov.in/wpcontent/uploads/2017/03/TheEnvironmentProtection-Act-1986.pdf

disparities and work to ensure that all communities have access to clean and healthy environments and sustainable energy systems.

## INDIAN PERSPECTIVE

In recent years, India has made significant progress in terms of economic growth and development. However, this growth has come at a cost to the environment, with the country facing several environmental challenges, including air pollution water pollution, deforestation, and climate change. In response to these challenges, the Indian government has enacted several laws and policies to protect the environment and promote renewable energy. The laws and policies governing the environment and energy in India are critical for the country's sustainable development. The Environmental Protection Act, 1986, the Wildlife Protection Act,1972, and the Water (Prevention and Control of Pollution) Act,1974, are the major environmental laws in India. These laws provide the legal framework for protecting the environment and regulating activities that could harm it. The National Green Tribunal,[12] which was established in 2010, has been given the responsibility of handling environmental disputes and enforcing these laws. On the other hand, the energy sector in India is regulated by several laws and policies, including the Electricity Act, 2003, the National Tariff Policy, and the National Electricity Policy. The Indian government has set a target of achieving 450 GW of renewable energy capacity by 2030, which is an ambitious goal. To achieve this target, the government has launched several schemes and programs, including the National Solar Mission, which aims to promote the use of solar energy in the country. Despite these efforts, India still faces several challenges in its energy sector, including the high cost of renewable energy and the limited availability of energy storage solutions. Similarly, environmental challenges such as air pollution and water pollution continue to plague the country. Therefore, it is crucial to analyze and compare the environmental laws and energy laws in India to understand the effectiveness of the legal framework governing these areas and identify areas where improvements can be made.

[12] Water (Prevention and Control of Pollution) Act, 1974. http://www.indiaenvironmentportal.org.in/files/file/Water%20(Prevention%20and%20Control%20of%20Pollution)%20Act,%201974.

# ENVIRONMENTAL LAWS IN INDIA

India has a comprehensive set of environmental laws and regulations, which aim to protect the country's natural resources and promote sustainable development. The most important environmental[13] law in India is the Environment Protection Act (EPA), which was introduced in 1986.The EPA provides the legal framework for regulating activities that have the potential to cause environmental damage, such as industrial activities, mining, and construction. The EPA also established the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), which are responsible for enforcing environmental regulations and monitoring air and water quality. In addition to the EPA, India has several other environmental laws and regulations, such as the Water (Prevention and Control of Pollution) Act, 1974, the Wildlife Protection Act, 1972 and the Air (Prevention and Control of Pollution) Act, 1981. Despite the existence of these laws and regulations, enforcement and implementation have been weak in many cases, leading to widespread environmental degradation and pollution. For example, air pollution levels in many Indian cities are among the highest in the world, leading to health problems and premature deaths.

**Virender Gaur v. State of Haryana[14]** , the Apex Court confirmed that for every citizen, there exists a constitutional right to healthy environment and further conferred a mandatory duty on the state to protect and preserve this human right.

Another landmark and revolutionary judgement is **Indian Council for Enviro-Legal Action vs. Union of India** [15], a case concerned serious damage by certain industries producing toxic chemicals to the environment of Bichchari District in Rajasthan. Directions for the closure of the industry were given and the decision in the **Oleum Gas Leak case[16]** regarding absolute liability for pollution by hazardous industries was reaffirmed. Moreover, the polluter pays principle was explicitly applied for the first time in the **Bichchari case**.

A foundation for the application of the Precautionary Principle, the Polluter Pays Principle and

[13] Wildlife Protection Act, 1972.
https:// www.moef.gov.in/wp-content/uploads/2019/09/Wild-Life-Protection-Act
[14] Virender Gaur v. State of Haryana, (1995) 2 SCC 577, (1997) 10 JT 600.1994.
[15] Enviro-Legal Action vs. Union of India, (1996) 5 SCC 647.
[16] Oleum Gas Leak case, M.C. Mehta v. Union of India, AIR 1987 SC 965, 982, and 1086

Sustainable Development, having been laid down, the three principles were applied together for the first time by the Supreme Court in **Vellore Citizens Welfare Forum v. Union of India**[17] , a case concerning pollution being caused due to the discharge of untreated effluents from tanneries in the state of Tamil Nadu. The Court, referring to the precautionary principle, polluter pays principle and the new concept of onus of proof, supported with the constitutional provisions of Art.21, 47, 48A and 51A (g) and declared that these doctrines have become part of the environmental law of the country.

The Public Trust Doctrine, evolved in **M.C. Mehta v. Kamal Nath**[18] , states that certain common properties such as rivers, forests, seashores and the air were held by Government in Trusteeship for the free and unimpeded use of the general public. Granting lease to a motel located at the bank of the River Beas would interfere with the natural flow of the water and that the State Government had breached the public trust doctrine.

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The Indian environmental jurisprudence was in a deep slumber. But today, the environmental consciousness imported by the courts, mingled with subsequent legislative efforts in the later years, introduced the right to environment as a fundamental right. The law relating to environment under Article 21 is thus evolving in a phase wise manner and is getting shaped into a well defined commandment. The extended view of Article 21 recognizes an individual's right to live in a pollution

[17] Vellore Citizens Welfare Forum v. Union of India, AIR 1996 SC 2715.
[18] M.C. Mehta v. Kamal Nath, (1997) 1 SCC 388.

free environment as it contributes towards improving one's quality of life. Thus any citizen can resort to filing writ petitions under Article 226 or Article 32 to take recourse against environmental pollution as it is detrimental to the quality of life.

# ENERGY LAWS IN INDIA

India has also introduced several energy policies and regulations in recent years[19], aimed at promoting renewable energy and reducing greenhouse gas emissions. The most important energy policy in India is the National Action Plan on Climate Change (NAPCC)[20], which was introduced in 2008.The NAPCC sets out a series of targets and strategies for mitigating climate change, including increasing the share of renewable energy in the energy mix and improving energy efficiency. To promote the development of renewable energy, India has introduced several policies and incentives, such as the National Solar Mission, which aims to increase the capacity of solar power to 100 GW by 2022. India has also introduced feed-in tariffs, which provide a guaranteed price for renewable energy producers, and tax incentives for investors in renewable energy.

**India's Commitment to SDGs**

Ensure access to affordable, reliable, sustainable and modern energy for all

1) Deen Dayal Upadhyaya Gram Jyoti Yojana
2) National Solar Mission – providing continuous power supply to rural India
3) India Energy Policy
4) Power (2015) – Electrification of the remaining 20,000 villages including offgrid Solar Power by 2020
5) Five new Ultra Mega Power Projects, each of 4000 MW to be installed95 In India , about 80% individuals have access to electricity .100% rural electrification .Power cables from the grid have arrived at transformer in every village except 31 millions houses have still without electricity as compared to 12.6% people globally still lacks electricity .Energy sector accounts for roughly 2/3rd GHG emission. India has a target of around 175 GW from RE to the UNFCCC.

[19] Ministry of Environment, Forest and Climate Change. (2021). India State of Environment Report: http://www.moef.gov.in/wpcontent/uploads/2021/02/SOE-Report-2021-Summary.pdf

[20] Ministry of New and Renewable Energy. (2021).India Energy Statistics 2021. https://mnre.gov.in/sites/default/files/Indiastatistics2021. pdf

**Sustainable Energy for All Initiative (SE4ALL)**

In September 2011, then UN Secretary-General Ban Ki-moon declared at the UN General Assembly new enterprise Sustainable Energy for All. In 2012 the International Year of Sustainable Energy for All, identified Energy at the middle of every effort relating to poverty alleviation and mitigating climate change.

Three Objectives:

- Ensure universal access to modern energy services.
- Double the pace of progress of energy efficiency.
- Double the portion of renewable energy in the worldwide energy mix.
- A multi-organization effort to establish a Global Tracking Framework (GTF) to give benchmark energy information and updates.

RISE—Regulatory Indicators for Sustainable Energy— is a global inventory of policies and regulations that support the achievement of SDG7 – electricity access, clean cooking, energy efficiency, and renewable energy. RISE allows them to benchmark their own country's progress against that of peers and identify areas for policy and regulatory reform; as a tool for private investors, it supports their due diligence process for new projects, products, and services.

**UNGA resolution: International Year of Sustainable Energy for All.**

By reaffirming its earlier commitments in Rio Declaration on Environment and Development 1 and of Agenda 21, 2 and recalling the recommendations and conclusions contained in the Plan of Implementation of the World Summit on Sustainable Development ("Johannesburg Plan of Implementation") concerning energy for SD. "Declared 2012 the International Year of Sustainable Energy for All to work towards ensuring energy access for all and to protect the environment through the sustainable use of traditional energy resources, cleaner technologies and newer energy sources."

**UNGA Resolution: Promotion of new and renewable sources of energy.**

By affirming the principles of Agenda 21, Johannesburg declaration and plan of implementation. The members perceives that 2.6 billion individuals in developing nations depends on conventional biomass for cooking and warming, that 1.3 billion individuals are without electricity and that, even

when energy services are available, millions of poor people are unable to pay for them. And now it has been established that lack of access to energy and sustainable modern energy services directly affects towards poverty eradication which is the central theme of MDGs.

Declare 2014–2024 the United Nations Decade of Sustainable Energy for All The main objectives is:

- to make universal access to sustainable modern energy services a priority, as such services contribute to poverty eradication, improve the quality of life, reduce inequality, save lives, improve health and help to provide for basic human needs, as well as curb environmental risks, including those associated with climate change, and stresses that these services are essential to social inclusion and gender equality."

**United Nations General Assembly resolution: The future we want- 2012**

The UNGA recognized that:

- Energy plays a critical role in the development process ,social inclusion and gender equality and also adds to poverty alleviation , spares lives, improves health and helps in accommodating basic human needs.1.4 billion People worldwide have no access to energy
- Challenge of access to sustainable modern energy services for all, specifically for poor people, who can't manage the cost of these services in any event, when they are accessible. Emphasizing the need, by mobilizing adequate financial resources, so as to provide these services in a dependable, reasonable, cost-effective and socially and environmentally acceptable manner in developing countries.
- Enforcement of nation and state policies and strategies, based on individual national circumstances and development aspirations, using an appropriate energy mix to meet developmental needs, including expanded utilization of RE sources and other low emission technologies, the more productive utilization of energy, more dependence on advance energy technologies, including cleaner fossil fuel technologies, and the sustainable utilization of conventional energy assets.
- Promoting modern energy services through national and subnational efforts, through electrification and dissemination of sustainable cooking and warming arrangements, by embracing best practices and strategies. Governments to create environments that facilitate public and private sector investment in relevant and needed cleaner energy technologies.

- Improving energy efficiency, portion of RE and cleaner and energyproductive advances are important for SD, so as to address climate change as well. Need for energy efficiency measures in urban planning, buildings and transportation and in the production of goods and services and the design of products.

**Establishment of International Energy Agency**

Article 1

An International Energy Agency (hereinafter called the "Agency") is hereby established as an autonomous body within the framework of the Organization.

Article 6

Development and implementation of a long-term co-operation programme to reduce dependence on imported oil, including: conservation of energy, development of alternative sources of energy, energy research and development, and supply of natural and enriched uranium.

**Agreement on International Energy Programme**

During 1973-1974 Middle East War crisis while oil producing countries are relatively well organized to utilize their oil economic and political power, many OECD countries found inadequately equipped to meet the challenges. Excessive, wasteful and inefficient use of energy and Energy conservation measures were underdeveloped no sufficient investment in the development of alternative energy sources. The policy and institutional lessons emergency prompted the foundation of the IEA with a more extensive system on energy security and energy policy cooperation. Strategy choices and the Agency framework were discovered its place in IEA arrangement called the "Agreement on International Energy Program".

Article 41 talks about that The Participating Countries are determined to reduce over the longer term their dependence on imported oil for meeting their total energy requirements. Countries will undertake national programs.

**Article 42**

a) Conservation of energy, ways and means for reducing the growth of energy consumption through conservation.
b) Development of alternative sources of energy such as domestic oil, coal, natural gas, nuclear

energy and hydro-electric power, ways and means for reducing the growth of consumption of imported oil through the development of alternative sources of energy.

c) Energy research and development, including as a matter of priority on Solar energy.

**Article 47**

The Participating Countries will, in the context of the Program Keep under review the prospects for co-operation with oil producing countries on energy questions of mutual interest, such as conservation of energy, the development of alternative sources, and research and development.

From the above discussion it is now well established that energy, climate change and sustainable development are interrelated which has find its place in many International documents, treaties, conventions Rio conference, Rio declaration, Agenda 21, UNFCCC, Johannesburg plan of Implementation, WSSD, Brundtland report and many more including SE4ALL initiative. There are many principles like Principle of Intergenerational equity, polluter pay, precautionary principle, common but differentiated responsibilities are the part of SD and has been affirmed by many countries national laws and judicial decisions. It is accepted that in order to mitigate climate change, the only answer is sustainable development. An analysis of all these conventions suggests that the goal of sustainable development cannot be accomplished without sustainable energy. Further, sustainable energy cannot be derived from conventional sources including fossil fuels and hydrocarbons, hence in order to achieve sustainable energy, which is a key driver of sustainable development is Renewable Energy which is efficient, pollution free and replenishable. Therefore, Renewable Energy should be given primacy over the conventional sources of energy.

## CHALLENGES AND OPPORTUNITIES

India faces several challenges in implementing and enforcing environmental and energy laws.One of the main challenges is the lack of resources and capacity at the local and state levels to enforce regulations and monitor environmental and energy performance. In addition, corruption and political interference have been identified as major obstacles to effective enforcement of environmental and energy regulations. Despite these challenges, India also has several opportunities to promote environmental protection and energy security. India has abundant renewable energy resources, such as solar and wind, which can be developed to reduce dependence on fossil fuels and promote energy

security. India also has a large population of young people who are increasingly aware of environmental issues and are demanding action from the government.

## CONCLUSION

Environmental laws and energy laws are both important for ensuring a sustainable future. While environmental laws are primarily focused on protecting the environment and natural resources, energy laws are focused on ensuring a reliable and secure energy supply. These laws share some common goals, but also have significant differences, which can create tensions and conflicts between the two laws. To address these challenges, policymakers and stakeholders need to strike a balance between environmental protection and energy security, and to update and adapt existing laws and regulations to address emerging environmental and energy issues. By working together, policymaker s and environmentalists can ensure that both environmental protection and energy security are achieved in a sustainable and equitable manner. Both environmental laws and energy laws play a critical role in ensuring a sustainable and secure future for India. The Indian government has enacted several laws and policies to protect the environment and promote renewable energy. However, the country still faces several environmental and energy challenges, including air pollution, water pollution, deforestation, high cost of renewable energy, and limited availability of energy storage solutions. To overcome these challenges, the government must take bold steps to enforce environmental laws and promote renewable energy. This can include increasing penalties for environmental violations, incentivizing the use of renewable energy, promoting research and development in energy storage solutions, and increasing public awareness on environmental issues. By taking these steps, India can ensure a sustainable and secure energy future for its citizens while protecting the environment for future generations.