

JUDICIAL ROLE IN RENEWABLE ENERGY & CLIMATE CHANGE LITIGATION

by

Adarsh M G

&

Ganga J Sankar

Abstract:

The increasing urgency of addressing global warming and transitioning towards renewable energy sources has significantly impacted legal and policy frameworks worldwide. In India, the judiciary, especially the National Green Tribunal and the Supreme Court, has played an active role in balancing the development of renewable energy with environmental protection and sustainable development. Landmark cases highlight the proactive stance of Indian courts in safeguarding ecological interests while encouraging the adoption of cleaner energy alternatives. However, the expansion of renewable energy infrastructure itself poses environmental challenges, such as habitat destruction, biodiversity loss, and adverse social impacts. Courts have often intervened to ensure that environmental regulations are not compromised in the name of green energy development. Internationally, countries like the USA, UK, Germany, China, Brazil, and Australia have witnessed similar legal interventions where courts have emphasised compliance with environmental standards, rights of indigenous communities, and long-term climate commitments.

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INTRODUCTION

The urgent need to combat climate change and promote renewable energy has brought environmental law and judicial intervention to the forefront. Courts in India and across the world are increasingly addressing disputes where energy development intersects with environmental protection. In India, the National Green Tribunal, Supreme Court, and High Courts have played a proactive role in balancing ecological concerns with the nation's growing renewable energy demands. Globally, countries are witnessing a rise in climate-related litigation, shaping both policy and legal frameworks. This article explores key cases that reflect this growing trend, highlighting how judicial actions are influencing climate governance and the future of sustainable development.

CASES INVOLVING THE DEVELOPMENT OF RENEWABLE ENERGY AND GLOBAL WARMING ABATEMENT

In *Raja Singh v. Ministry of Housing and Urban Affairs & Another*,¹ a National Green Tribunal bench consisting of Hon'ble Mr. Justice Adarsh Kumar Goel (Chairperson) and Hon'ble Mr. Justice Sudhir Agarwal (Judicial Member) dealt with issues concerning the absence of proper regulations that control the "green building rating system." The system has gained prominence in recent times while protecting environmental standards in buildings. The Tribunal instructed several government agencies, such as the Ministry of Urban Development, MoEF&CC, Ministry of Renewable Energy, and the CPCB, to reply. With regard to these submissions, a Joint Committee was established to recommend suitable standards and guidelines for indoor air quality in public places, under the Environment (Protection) Act, 1986, the Environment Protection Rules, or the Air (Prevention and Control of Pollution) Act, 1981. The CPCB also recommended that current green building rating systems need to be strengthened further.

¹ *Raja Singh v. Ministry of Housing and Urban Affairs & Another*, O.A. No. 468/2022. Date of hearing: 19.09.2022.

The Indian judiciary has always played a proactive role in safeguarding the environment, as guaranteed under Article 21 of the Constitution of India. In the seminal case of *M.C. Mehta v. Union of India*², the Supreme Court gave directions to private industries to implement pollution control measures and save heritage sites like rivers and monuments. Even though the ruling did not directly require the utilization of renewable energy, its underlying values strongly advocate a transition away from fossil fuels towards more sustainable forms of energy.

The National Green Tribunal, as in the case of its global equivalents, has not been able to effectively address the impacts of climate change. One of the leading examples is found in the *Court on its Own Motion v. State of Himachal Pradesh and Others* case³, which considered the environmental pollution and degradation responsible for the speedy melting of the Rohtang Pass glacier in the Himalayas. The Tribunal acted with various steps aimed at mitigating air pollution and cutting down emissions within the area.

In *Girish Keskar v. State of Maharashtra*⁴, the Tribunal directed the Maharashtra Pollution Control Board to impose stricter controls on thermal power plants. This involved the imposition of pollution-control equipment and compliance with emission standards. The case highlighted the urgent need to shift away from coal-based energy generation and invest more heavily in renewable energy.

The Gujarat High Court, in *Gujarat Urja Vikas Nigam Ltd. v. Essar Power Ltd*⁵, ruled in a case involving energy companies and the state government over the implementation of Renewable Purchase Obligations (RPOs). The Court validated the state's authority to impose such obligations and called for complete adherence by energy companies. This action further established the place of renewable energy in the energy policy of the state.

The Supreme Court, in *Gujarat Urja Vikas Nigam Ltd v. Solar Semiconductor Power Company (India) Pvt. Ltd*⁶, emphasized observing "power purchase agreements" to maintain predictability in renewable energy development. It held against one-sided changes to these contracts, reaffirming the proposition that stable, predictable contracts are necessary for investor confidence and cross-border investment in renewable energy ventures.

²*M.C. Mehta v. Union of India*, AIR 1997 SC 735

³ . *Court on Its Own Motion v. State of Himachal Pradesh and others*, 2013 (CWPIIL No. 15 of 2010).

⁴ *Girish Keskar v. State of Maharashtra*, O.A No. 334 of 2014.

⁵ *Gujarat Urja Vikas Nigam Ltd. v. Essar Power Ltd*, AIR 2016 SC (SUPP) 123, 2016 (9) SCC 103.

⁶ The Supreme Court, in *Gujarat Urja Vikas Nigam Ltd v. Solar Semiconductor Power Company (India) Pvt. Ltd* (2017) 16 SCC 94

While the NGT has not ruled on *Ridhima Pandey v. Union of India*⁷ so far, it has attracted some public interest. It invoked the provisions of Section 20⁸ of the NGT Act, including the "precautionary principle" and "sustainable development." It raised issues pertaining to the inconsistency between the prevalent environmental laws and their ineffective enforcement, observing administrative inertia still impairing effective action on climate matters. The matter underscores the need for thoughtful policy frameworks to respond meaningfully to the climate crisis.

2. CASES PERTAINING TO THE RENEWABLE ENERGY DEVELOPMENT AFFECTING THE ENVIRONMENT

There are numerous writ petitions and cases pending in various Indian courts, including the National Green Tribunal. These cases demonstrate an increasing sensitivity and judicial involvement with the environmental implications of renewable energy expansion. While judicial opinions on these matters are still in the process of development, the courts themselves are playing an active role in shaping new policy and jurisprudence, frequently taking cues from expert committee recommendations and specialists.

The Supreme Court of India made a great leap in the development of "climate litigation" with its path-breaking judgment in *M.K. Ranjitsinh & Others v. Union of India & Others*.⁹ In this matter, the Court exercised jurisdiction to safeguard threatened species, namely the Great Indian Bustard (GIB) and the Lesser Florican, whose remaining populations are mostly located in Rajasthan. The IUCN has classified the GIB as a "critically endangered" species based on the precipitous drop in its population.

The petition, submitted by a celebrated environmentalist, had expressed concerns over the risk to life caused by overhead power transmission lines to such birds. The petitioner prayed before the Court to issue interim orders to the state governments of Gujarat and Rajasthan and request them to act forthwith. These consisted of putting in place protective fencing against predators, controlling livestock grazing in known habitats, stopping the laying of overhead power lines, and limiting the establishment of wind and solar infrastructure in priority and potential habitats designated by the Wildlife Institute of India. The case also initiated a debate on "sustainable development", with reasoning based on both anthropocentric and ecocentric worldviews.

⁷ *Ridhima Pandey v. Union of India*, O.A No. 187 of 2017, National Green Tribunal (India).

⁸ National Green Tribunal Act 2010. S.20.

⁹ *M.K. Ranjitsinh & Others v. Union of India & Others* (2021) 15 SCC 1.

In *Shankarlal Gopalbhai Patel v. Union of India & Others*,¹⁰ the applicant had made a case under Sections 14, 15, and 18(1) of the National Green Tribunal Act, 2010. The petition was to stop the setting up of wind farms in Sangara, Gujarat, on grounds of illegal deforestation for the purpose of construction of the project. The Tribunal made it clear that leases given to plots of land in forest areas had already been canceled. For non-forest lands, where there was no strong evidence of severe harm to biodiversity, the Tribunal permitted the projects. It stressed that while slight environmental impact may result, the greater public interest of building green energy infrastructure took precedence over such losses.

In *Lafarge Umiam Mining Pvt. Ltd. v. Union of India*,¹¹ the Supreme Court applied stringent environmental controls on mining limestone in Meghalaya, especially around the Nongtra Wildlife Sanctuary. These conditions included restricting practices like blasting and transportation to contain ecological harm. Significantly, the Court also discussed the side effects of industrial activity related to the development of renewable energy sources, including the ecological impact of the production of solar panels, installation of windmills, and hydropower plants.

The National Green Tribunal, in *Green Society v. Union of India*,¹² considered the environmental concerns raised by marginal communities about the solar energy projects. The Tribunal centered on revamping the Environmental Impact Assessment (EIA) process for renewable energy projects. Its initiative sought to simplify project approvals while responding to the concerns of local people. The decision showed a commitment to reconciling the growth of renewable energy with nature and social responsibility, so that environmental, economic, and cultural interests are all addressed.

In *M/s. Lanco Infratech Ltd v. State of Andhra Pradesh*,¹³ the Tribunal considered the negative effects of the creation of large-scale solar parks, especially the relocation of local people and degradation of the environment. The ruling highlighted the need for an integrated, interdisciplinary strategy that balances environmental protection with social concerns. The ruling was a reminder that development schemes need to be in consonance with the tenets of

¹⁰ *Shankarlal Gopalbhai Patel v. Union of India & Others* O.A No. 06/2020(WZ) I.A. No. 11/2020 & I.A. No. 61/2021. Date of hearing: 20.01.2023.

¹¹ *Lafarge Umiam Mining Pvt. Ltd. v. Union of India* 2011 INSC 461, [2011] 7 S.C.R. 954.

¹² *Green Society v. Union of India* [2017] NGT 21.

¹³ *M/s. Lanco Infratech Ltd vs. State of Andhra Pradesh* [2013] NGT 95.

"sustainable development" and not compromise ecological integrity or social justice in the name of progress.

CLIMATE CHANGE LITIGATION WITH SPECIAL EMPHASIS ON RENEWABLE ENERGY IN FOREIGN COUNTRIES

Around the world, climate litigation has more and more overlapped with the growth of renewable energy. A number of countries such as India, the United States of America, Germany, Brazil, the United Kingdom, etc., have experienced legal disputes in light of renewable energy projects that impact forests, wildlife, and ecosystems. ¹⁴The construction of wind farms in forest areas has usually resulted in conflicts over habitat fragmentation, noise pollution, and interference with wildlife migration corridors. Similarly, solar power infrastructure established in protected areas or along forest buffers has been criticized for leading to loss of biodiversity and disrupting ecological connectivity.

Hydropower schemes, particularly those in watersheds with high forest cover, have initiated environmental changes like the loss of habitats for aquatic life and disruption to the natural river flow. Such effects also find their way to indigenous and tribal people, who tend to suffer most through loss of traditional means of livelihood, cultural heritage, and land. As a result, litigation in these settings normally revolves around issues related to Environmental Impact Assessment (EIA) processes, deterioration of biodiversity, forest certification rules, and land acquisition regulations.

UNITED STATES

In the historic case *Massachusetts v. Environmental Protection Agency*,¹⁵ the U.S. Supreme Court acknowledged the EPA's responsibility under the Clean Air Act to control greenhouse gas emissions. The ruling created a vital connection between vehicle emissions and global warming, requiring the EPA to formulate emissions control policies for vehicles and power plants.

Some of the other key decisions are *Maine Council of Atlantic Salmon Federation v. National Marine Fisheries Service*,¹⁶ in which procedural restrictions under the Federal Power Act were

¹⁴ Wu B and others, *Power Conversion and Control of Wind Energy Systems* (John Wiley & Sons 2011)

¹⁵ *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007).

¹⁶ *Maine Council of Atlantic Salmon Federation v. National Marine Fisheries Service* 858 F.3d 690 (1st Cir. 2017).

considered, and *Animal Welfare Institute v. Beech Ridge Energy LLC*,¹⁷ in which a federal court held that a wind energy project violated the "Endangered Species Act" (ESA) by posing a threat to the Indiana bat. The court emphasized the necessity of comprehensive EIAs and required that wind projects close to endangered species' habitats must be closely monitored and regulated. Settlement was made to limit turbine setup and implement strict conservation procedures, putting an active onus on companies to expect and devalue risks to protected species.¹⁸

CHINA

China is the world leader in renewable energy capacity installed. It has a "Renewable Energy Law" that entails a comprehensive legislative framework including the objectives, incentives, and regulatory standards for the development of renewable power. The legislation prescribes approval processes, compliance requirements, and subsidy disbursements to facilitate efficient implementation of projects.¹⁹

Latest policy changes stress incorporating innovative renewable technology, increasing efficiency, and facilitated grid integration in order to extend access to cleaner energy. In the high-profile case of *Jiangsu Zhongtai International Co., Ltd. v. Ministry of Finance*²⁰ of the People's Republic of China, the Jiangsu High People's Court ordered the release of outstanding subsidies for solar energy projects by the Ministry, bolstering the government's intention to honor its pledges under current renewable energy policies.

UNITED KINGDOM

In *R (Friends of the Earth) v. Secretary of State for Business, Energy and Industrial Strategy*,²¹ the High Court considered the inadequacies in the U.K.'s "Net Zero Strategy" (NZZ). The petitioners contended that the government had not adhered to Sections 13 and 14 of the CCA 2008²² and that the NZZ increased energy poverty, thus breaching the "Equality Act 2010" and the Human Rights Act 1998. The Court held that the strategy was not transparent

¹⁷ *Animal Welfare Institute v. Beech Ridge Energy LLC* (2009) No. RWT 09cv1519.

¹⁸ Balzer KS, "Bats and Breezes Take on Federal Policy: The Windy Effects of *Animal Welfare Institute v. Beech Ridge Energy LLC*" (2011) 22 *Vill. Envtl. L.J.* 225.

¹⁹ Hu T, "Energy Law" (*NPC Observer*, April 10, 2020) <<https://npcobserver.com/legislation/energy-law/>> accessed April 2, 2025.

²⁰ *Zhongtai International Co., Ltd. v. Ministry of Finance*, Jiangsu Province High People's Court, Case No. (2020) Su Gao Min Zhong No. 391

²¹ *R (Friends of the Earth) v. Secretary of State for Business, Energy and Industrial Strategy* [2022] EWHC 1841 (Admin).

²² Climate Change Act 2008.

and lacked measurable targets, instructing the addition of specific policies to achieve the specified objectives.

In another case, *R (Cox & Others) v. Oil and Gas Authority & Others*²³, the High Court dismissed applications against the government's new oil and gas policy, which aimed to reconcile net-zero targets with maximizing production from the North Sea. The Court ruled that economic considerations did not violate statutory duties.

GERMANY

Germany has witnessed influential judicial action to reaffirm its climate commitments. In *Neubauer et al. v. Germany*,²⁴ the Federal Constitutional Court decided that the "Federal Climate Protection Act, 2019" fell short of achieving the goals of the Paris Agreement. The Court decided that putting off significant reductions in emissions after 2030 would disproportionately harm future generations and hence violate rights to life and property under the constitution. The ruling triggered legislative changes and is now a reference point in climate litigation debate around the world.

In *Bund Naturschutz v. Free State of Bavaria*,²⁵ the Munich Administrative Court ruled that the building of wind turbines in the Bavarian Forest National Park would be a violation of established landscape and nature conservation legislation. The Court emphasized the need to preserve ecological equilibrium while increasing renewable energy infrastructure.

BRAZIL

With more than 90 percent of its power coming from renewables, Brazil has a strong ingrained commitment to clean energy. The legal and regulatory framework of the country, backed by landmark judicial rulings, is crucial in determining the future of its renewable industry.²⁶

A notable example is the Supreme Federal Court's judgment on the constitutionality of the REIDI (Special Incentives for Infrastructure Development) program. The Court held that tax incentives provided under REIDI were legitimate and confirmed that such incentives align with

²³ *R (Cox & Others) v. Oil and Gas Authority & Others* [2022] EWHC 75 (Admin).

²⁴ *Neubauer et al. v. Germany* 1 BvR 2656/18.

²⁵ *Bund Naturschutz v. Free State of Bavaria* C-396/92,

²⁶ Alberto, Barretto AC and Engel D, "A General Introduction to Renewable Energy Law in Brazil" *Veirano Advogados* (June 24, 2024) <<https://www.lexology.com/library/detail.aspx?g=c74a3288-6031-4efe-b887-eccc075433d0>> accessed April 1, 2025.

constitutional goals and facilitate the development of essential infrastructure, including the development of renewable energy projects.²⁷

AUSTRALIA

The ruling in *Gloucester Resources Limited v. Minister for Planning*²⁸ is a landmark in Australian climate litigation. The New South Wales Land and Environment Court denied approval for a coal mining venture in the Rocky Hill site due to substantial environmental, social, and climate harms. The ruling upheld the Minister's power to reject high-carbon infrastructure, indicating commitment to just transition and long-term climate objectives.

In *Jubilee v. Economic Freedom Fighters and Northern Australia Infrastructure Facility*,²⁹ a public interest organization asserted that government-supported fossil fuel projects did not report their environmental effects, hence violating local laws. The case exposed loopholes in mechanisms for transparency and accountability over subsidies for emission-intensive industries.

INTERNATIONAL COURT OF JUSTICE (ICJ) ADVISORY on CLIMATE CHANGE

On 29 March 2023, the United Nations General Assembly passed Resolution A/77/L.58, calling upon the International Court of Justice (ICJ) to render an advisory opinion on States' legal obligations in relation to climate change. The campaign was initiated by the Republic of Vanuatu and backed by youth activism and 105 co-sponsoring countries.

The request seeks clarity on two critical questions: first, the legal obligations of States under international law to safeguard the climate and the broader environment from anthropogenic greenhouse gas emissions; and second, the legal consequences for States whose actions or inactions have caused substantial harm, particularly with respect to vulnerable small island nations and future generations.

This initiative trails other pending advisory petitions to the International Tribunal for the Law of the Sea and the Inter-American Court of Human Rights. ICJ's views are anticipated to bring

²⁷ "Reidi - Regime Especial de Incentivos Para o Desenvolvimento Da Infraestrutura" *Ministério dos Transportes* (November 19, 2014) <<https://www.gov.br/transportes/pt-br/assuntos/conteudo/reidi-regime-especial-de-incentivos-para-o-desenvolvimento-da-infraestrutura>> accessed March 19, 2025.

²⁸ *Gloucester Resources Limited v. Minister for Planning* [2019] NSWLEC 7.

²⁹ *Jubilee v. Economic Freedom Fighters and Northern Australia Infrastructure Facility*[2023] HCA 15, [45].

into light legal responsibilities as regards climate justice, such as the controversial one on "loss and damage" which was accepted at COP27 through the declaration of a worldwide fund to be used by nations impacted by these issues. The effectiveness of such mechanisms will depend on clear legal frameworks and transparent responsibilities domains where the ICJ's leadership could prove revolutionary.³⁰

³⁰ Bañuelos MATAC, "The ICJ's Advisory Opinion on Climate Change: What Happens Now?" (*Climate Law Blog*, March 29, 2023) <<https://blogs.law.columbia.edu/climatechange/2023/03/29/the-icjs-advisory-opinion-on-climate-change-what-happens-now/>> accessed April 5, 2025.