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CLIMATE CHANGE AND LAW: INDIA'S PREPAREDNESS FOR A SUSTAINABLE FUTURE

Atul Singh¹

I. ABSTRACT

Climate change has been one of the most recurrent problems in the world in the last few decades. To cope with this problem, the countries have come together to make international agreements and national policies with focus on both reducing its effects and adapting to its ever-changing nature. The study examines climate governance, specifically focusing on India's legal status and policy structures to ensure a sustainable future. The nation has made some good progress through constitutional provisions, statutory enactments, and judicial interventions, but its legal readiness is still weak and requires action. This study critically analyzes Indian legislation and statutory provisions with regards to climate change, assessing their adequacy when compared with global legal standards. It also makes it clear that climate change is not only an environmental problem but also a problem of justice, fairness, and human rights. The Study seeks to recommend legal reforms to create a robust and sustainable path for India by assessing current strengths, pinpointing policy deficiencies that are governing the current scenario, and drawing on comparative international experiences. This paper also stresses how traditional and indigenous practices are important for India, as they have been employed for centuries and have contributed to sustainable resource management, especially in agriculture sector. It highlights how Indian laws and policies can change to meet the needs of the country while also keeping up with new technologies.

II. KEYWORDS

Climate Change Law, Indian Legal Preparedness, Climate Governance, Sustainable Development, indigenous methods, Comparative analysis

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III. INTRODUCTION

People can't choose whether or not to believe in climate change; it's happening. - Matt Gaetz². The world has had to deal with climate change for the past few decades, and its effects are getting worse every year. We can't wait any longer to deal with its root causes and lessen its effects. The future of sustainability depends on what this generation does. People today must not exhaust all of the natural resources without limits; they need to be protected for future generations to keep the environment in balance and help it grow over time.

The Paris Agreement³, the Kyoto Protocol⁴, and the United Nations Framework Convention on Climate Change (UNFCCC)⁵ are all examples of international laws and policies that show how bad the crisis is getting. Even though these efforts are being made all over the world, experts say that stronger action plans are needed to deal with planetary emergence. India's problems with climate change are made worse by its growing population, weak geography, fast urbanization, reliance on coal for energy, and lack of water. India is very likely to be affected by extreme heat, rising sea levels, and damage to ecosystems if global temperatures go above 1.5 degrees Celsius.

Indian legal and institutional system has to make some major reforms in attaining sustainable future. The constitution of India is one of the few constitutions in the world that clearly states protection of the environment. This is why there is a need to make rules for the environment and climate. Currently there are a lot of laws and rules, but they don't suffice well because of how broad, vague, and difficult they are to follow.

² Geoff Dembicki, *DC's Trumpiest Congressman Says the GOP Needs to Get Real on Climate Change*, VICE (Mar. 25, 2019), <https://www.vice.com/en/article/matt-gaetz-congress-loves-donald-trump-climate-change/>.

³ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec 12, 2015, T.I.A.S. No. 16-1104.

⁴ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 2303 U.N.T.S. 162.

⁵ United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

Assessments show that India's climate policies are currently insufficient to meet the needed requirements for reducing the emissions.

A. RESEARCH PROBLEM

1. Existing laws focus on stopping pollution and saving of water, but not on cutting carbon emissions in a planned way.
2. Current statutes and legislation are broad, vague and non-effective on ground
3. India's climate policies are currently insufficient to meet the climate goal and requirements for reducing the emissions
4. Lack of independent oversight mechanism
5. Absence of a dedicated climate council with statutory powers
6. Limited public participation in policy formulation
7. Judiciary still faces delayed proceedings and limited enforcement capacity

B. RESEARCH QUESTION

1. To what extent is India's current legal framework adequate for addressing climate change challenges when compared to internationally recognized models like Denmark, Sweden and the Netherlands?
2. How effective are India's constitutional provision are in providing enforceable climate protection mechanisms?
3. What are the key implementation gaps between India's climate policies (NPACC, SPACC) and their practical enforcement?
4. How can India's traditional and indigenous climate adaptation methods be systematically integrated into modern climate legislation for better effectiveness?
5. How can India transition from mere climate policies to legally binding institutional accountability mechanisms?

C. RESEARCH HYPOTHESES

1. This research hypothesizes that the absence of legally binding enforcement mechanism in India's climate policies may theoretically correlate with observed implementation gaps in achieving national climate targets. Future empirical research will be necessary to test this hypothesis and determine strength & nature of this correlation.
2. Compared to purely modern technology measures, the efficiency and cultural acceptability of climate policies will be greatly increased by logical incorporation of India's indigenous and traditional climate coping techniques.
3. Legislative adequacy and judicial activism in climate-related issues may be inversely correlated; the hypothesis suggests that more legislative loopholes exist, the more judicial intervention to address such gaps will be there. This is theoretical relation that will be explored.
4. Compared to the current government-led-approach, the creation of an independent climate council with statutory powers will lead to a better implementation and answerability of climate policy

D. LITERATURE REVIEW

The law for climate change deals with the environmental crisis through various legal and policy frameworks aimed at mitigating and adapting as per the need. In India, this engagement is somewhat complex, as the need to reconcile sustainable development with international climate commitments and domestic needs is paramount, and this review synthesizes seminal academic works by critically examining recent policy developments, scientific reports, and key judicial pronouncements to provide further assessment of India's preparedness for a sustainable future.

IV. POLICY EVOLUTION IN INDIA

Dubash, Khosla, Kelkar, and Lele looked at how India's climate policy has changed over time. They showed how it went from being questioned by people outside of India to being

run by a single government. The authors said that India's climate policies include climate action in national development plans. This shows that people are becoming more aware of climate risks and what the world expects from them. India's National Action Plan on Climate Change (NAPCC), which started in 2008, is a major plan that guides climate policy there. It has eight main missions that aim to boost the use of technology to cut greenhouse emissions and improve on renewable energy, energy use, water management, farming, forests, and understanding climate change. While Dubash et al. emphasize a development-first climate policy; other scholars caution that the NAPCC suffers from weak statutory mandates, fragmented institutional coordination, and limited enforceability.⁶

India's is committed to a sustainable energy transition and this lies in its 'Panchamrit' targets, which accounts for achieving 500 GW of non-fossil fuel energy driven capacity and gaining 50% of electricity demand through renewable energy by 2030. The report from the ministry of forest and climate change stated a 7.93% reduction in greenhouse gas emissions in 2020 compared to 2019, signifying progress with an adapting legal and policy formulation.⁷

V. INTERNATIONAL STANCE & CLIMATE NEGOTIATIONS

Dimitrov's analysis on the Paris Agreement negotiations has helped us identify the rigid political dynamics in global climate governance. India's role, therefore, emphasizes equity & the rule of common yet differentiated responsibilities, which reflects its developmental priorities and efforts to balance international expectations keeping up with national realities.⁸ This balancing act has shaped Indian response, aligning with international commitments by development goals. India's leadership in coalitions and its

⁶ Navroz K Dubash and others, 'India and Climate Change: Evolving Ideas and Increasing Policy Engagement' (2018) 43 *Annu Rev Environ Resour* 395.

⁷ '7.93% Drop in GHG Emissions'

<<https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=2092311>> accessed 15 September 2025.

⁸ Radoslav S Dimitrov, 'The Paris Agreement on Climate Change: Behind Closed Doors' (2016) 16 *Global Environmental Politics* 1.

recent international climate-oriented finance initiatives, such as the International Solar Alliance program, have strengthened the active engagement of the nation in global climate diplomacy.⁹

VI. ROLE OF JUDICIARY AND CLIMATE LITIGATION (INDIA)

A study Climate Change litigation: Indian Perspective that outlines the increasing role of the Indian judiciary in climate governance, leveraging constitutional rights such as the right to life under Article 21 to promote environmental protection.¹⁰ The judiciary's activism is witnessed in the recent decision of the Supreme Court's 2024 ruling in the case of *M.K Ranjitsinh & ors. V. Union of India*,¹¹ which was fundamentally a case about balancing Great Indian Bustard conservation with renewable energy projects, insisted a link between climate change mitigation and fundamental rights, thereby holding the state accountable for climate impacts. The recognition of climate change as part of the fundamental right to life was first articulated in this case.

Moreover, the pending case law of *Ridhima Pandey V. Union of India*,¹² exemplifies judicial supervision of state action in climate policy implementation. In 2025, the Supreme Court mandated inter-ministerial coordination and directed the formulation of a comprehensive carbon reduction plan, indicating judicial demand for government accountability and coherent climate governance. The court stressed the need to reassess the existing laws of environmental protection and air pollution prevention act to ensure enforceable climate-centric action. Though the case remains pending and no final judgment has been delivered, these were the interim orders not the final determination. Such judicial activities highlight the opportunities and challenges of effectively enforcing climate laws amidst legislative gaps.

⁹ 'COP-26: CEEW Unpacks India's 2070 Net-Zero Target and Other Climate Mitigation Measures | CEEW' <<https://www.ceew.in/news/cop-26-ceew-unpacks-indias-2070-net-zero-target-and-other-climate-mitigation-measures>> accessed 15 September 2025.

¹⁰ Eeshan Chaturvedi, 'Climate Change Litigation: Indian Perspective' (2021) 22 German Law Journal 1459.

¹¹ *M.K Ranjit singh v. Union of India*, Writ Petition (civil) No. 838 of 2019

¹² *Ridhima Pandey v. Union of India*, Civil appeal no. 388, 2021, SC

VII. DEVELOPMENTAL ISSUES & OPPORTUNITIES

Another research paper states that India is currently facing a critical problem of balancing rapid economic growth with infrastructure demands keeping up with the climate mitigation imperatives..¹³ Some Scholars argue that coal dependence & industrial expansion render India's net-zero trajectories as political aspiration but institutionally it is under-specified, while others mentions green finance mobilization and decentralized renewable initiative as credible transition. These differing viewpoints create a policy-capacity paradox.

India has a formal commitment to achieve the net-zero greenhouse gas emissions by 2070, as mentioned at COP 26 and the nation reaffirmed in recent government statements, reflecting a long-term strategic vision that prioritize equity and justice. This commitment contrasts with scientific assessments as the 2024 IPCC reports that the Indian state is more vulnerable to climate-induced hazards, including but not limited to sea-level rise, extreme heat, and ecosystem disruptions, urging multi-sector climate adaptation.¹⁴

VIII. RESEARCH GAPS & METHODOLOGY

Considering all the reviewed literature, it is evident that India is gradually fortifying its climate law framework by evolving policies, active international diplomacy, judiciary innovation, and a rising focus on balancing developmental and environmental goals. However, there is limited engagement with the enforceability dimension of climate governance and the role of statutory specificity in reducing judicial load. Few studies undertake comparative doctrinal assessment between India and high compliance jurisdictions like Denmark & Sweden; this study position itself in this gap; this paper focuses on suggesting the same by focusing on indigenous techniques and traditional

¹³ Naveen Sukumaran, 'Paris Agreement and India: Challenges and Opportunities' (Social Science Research Network, 30 March 2020) <<https://papers.ssrn.com/abstract=4315976>> accessed 15 September 2025.

¹⁴ '2024 – IPCC' <<https://www.ipcc.ch/2024/>> accessed 15 September 2025.

knowledge to tailor a climate law specifically meeting the demand of the Indian Climate condition according to the regions in different parts of the state. The paper has followed a doctrinal approach and suggests that an empirical study could be conducted in future research to support the claim with real-time data regarding the need for climate-specific legislation incorporating indigenous methods and suggestions tailored for Indian climate conditions.

The literature reveals three key tensions:

1. Ambition versus enforceability in Indian climate statutes.
2. Judicial innovation versus institutional overreach; and
3. Developmental imperatives versus global compliance expectations.

IX. INDIAN CONSTITUTIONAL FRAMEWORK

We are the largest democracy of the world, and the Indian constitution has provided for environmental protection and safeguarding even in the Fundamental Rights of the Constitution, along with the Directive principle of state policies and other provisions.

1. Article 21¹⁵ refers to right to life, where the Supreme Court has made it clear that it also includes the right to clean environment
2. Article 14¹⁶ refers to right to equality, states there shall be no discrimination in protection against climate harm.
3. Article 48A¹⁷ mandates the state to improve the environment and safeguard forests and wildlife.
4. Article 51A(g)¹⁸ refers to Fundamental duty of every citizen to protect the natural environment, including- forests, lakes, rivers, and wildlife, and to show compassion for living creatures.

¹⁵ India Const. art. 21.

¹⁶ India Const. art. 14.

¹⁷ India Const. art. 48A.

¹⁸ India Const. art. 51A (g).

The table below is not exhaustive, and there are several other state-level policies that have played a vital role so far in coping with the issues of climate change, although the need for comprehensive legislation that can cover climate change has been highlighted in many previous studies as well. Scholars and Courts have called for a dedicated Climate Change law that can unify and strengthen the current system.¹⁹

There are some countries with proper separate legislation relating to Climate Change norms, such as Denmark, which is one of the most successful countries with a legally binding Climate Act (2020), which advocates for 70% green-house gas reduction by 2030 and also achieves climate neutrality by 2050. India's current legislation is globally recognized for its ambition and commitment, but the NPACC (National Action Plan on Climate Change) and SPACC (State Action Plan on Climate Change) lack legal enforceability and binding force, which will be highlighted in further chapters.

The current legislation that is active in the nation needs to be scrutinized to align them with the fast-changing environment as the legislation and its mechanism is not up to the standards and needs of the current challenges that the country is facing constantly in the face of havocs, heavy rainfall, scorching heat, and extremely dry conditions in certain parts of the country. The sections and provisions are specifically mentioned that act as climate specific rules for the country.

¹⁹ Ashwini Kumar Upadhyay v. Union of India, Writ Pet. No. 794/2018 (Supreme Court, Sept. 25, 2018) (AIR 2018 SC 4633;2019 (11) SCC 683).

LAW/POLICY NAME	YEAR	KEY SECTION/ PROVISION	SCOPE DESCRIPTION
Environment (Protection) Act,	1986	Section 3,5,7	Umbrella law for environmental protection and pollution control
Air (Prevention and Control of Pollution) Act,	1981	Section 17, 21	Regulates air pollution control and regulation standards
Water (Prevention and Control of Pollution) Act,	1974	Section 17,24	Regulates Water prevention
Forest (Conservation) Act,	1980	Section 2	Safeguard Indian forests, a crucial carbon sink
Biological Diversity Act,	2002	Section 18, 20	Conservation, sustainable use of biodiversity
National Green Tribunal Act,	2010	Section 14, 15	Adjudicate environmental protection, climate related issues
Wildlife protection Act,	1972/2002	Section 9, 17A	Wildlife conservation and habitat protection
Energy Conservation Act,	2001	Section 14, 15	Promoting energy efficiency, crucial for mitigation

National Action plan on Climate Change Policy	2008	–	National mission for adaptation, mitigation
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X. THE LEGALLY BINDING CLIMATE LAW OF DENMARK, SWEDEN AND THE NEHERLANDS

The Climate Change Performance Index (CCPI) is an index worldwide that evaluates climate performance using a standardized framework of 63 countries and the European Union (EU) of global green-house gas emissions. The measures used to calculate the rankings are shown in the figure below.²⁰

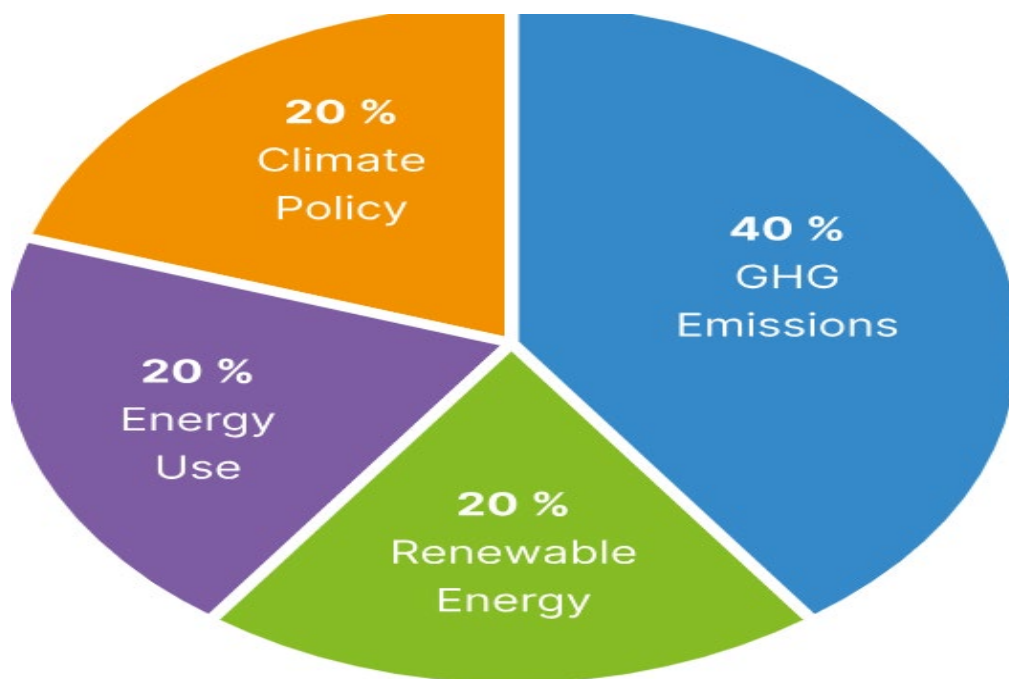
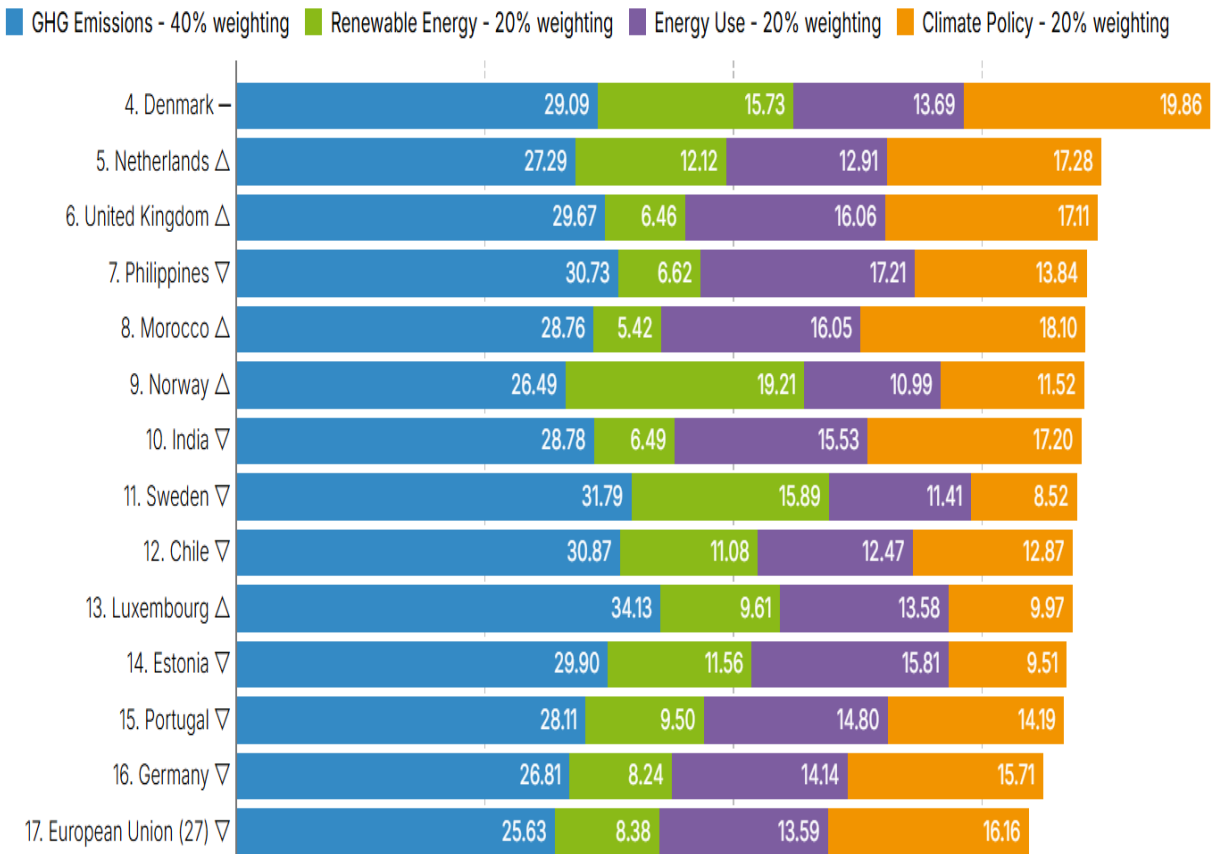


Figure 1 Source: Climate Change Performance Index (CCPI) 2024 Report, (online), section “methodology” available at: <https://ccpi.org/>

²⁰ ‘Climate Change Performance Index (CCPI)’ (20 November 2024) <<https://ccpi.org/>> accessed 16 September 2025.

The rankings of 2025 also prove that the Danish model of Climate Law is one of the best worldwide, and India can put together its own legislation based on some traditional and indigenous knowledge as per its demography and requirements which will be discussed in detail in this paper. An overview of the rankings of 2025 can be seen through the index below taken from the official CCPI:²¹



© Germanwatch 2024

Figure 2 Source: Climate Change Performance Index (CCPI) 2024 Report, (online), available at: <https://ccpi.org/ranking/>

If we look at the Indian ranking, its position is relatively strong on a global stage, especially in managing emission intensity and energy use efficiency, but still faces hurdles due to overdependence on coal and implementation gaps. This shows how

²¹ *ibid.*

important it is to take action in a planned way over time. The recent opening of the carbon market and the ongoing rush to make policies shows that things are moving forward. The average person in India has a carbon footprint that is less than half of the world's average. But there are two problems that need to be fixed: adaptation of finance and the sector gap of inclusion.

XI. THE DENMARK CLIMATE MODEL

The Danish law aim is to reduce greenhouse gas (GHG) emissions by 70% by 2030 in comparison to 1990 levels and achieve climate neutrality by 2050. There is a fine policy commitment to make the government set new, legally binding climate goals every five years, with a ten-year view in check, making sure that the new goals are better when compared to last ones.²²

The government is required to send a new climate action plan and yearly reports relating the state of the climate and its predictions. In this way there is a method of keeping checks and balances in place, resulting in political and public oversight.²³

A. Concept of Green Transition in Denmark

The reason of good governance in the Danish region is not limited to legislation alone; the society and people are committed to innovation and collaboration. The concept of green transition is the outcome of strong public and private partnerships, characterized by societal trust. This approach has helped the nation in building green technologies particularly in renewable energy sector, where Denmark is Global pioneer in wind power.²⁴

The multi-sector approach shows that green transition is a collective effort, not just an isolated one. The success of the Danish model of legislation does not lie in government

²² "Key elements of the Danish Climate Act."

²³ 'The Climate Act - Climate Change Laws of the World' <https://climate-laws.org/document/the-climate-act_dae7> accessed 16 September 2025.

²⁴ 'Denmark's Green Transition - to a Global Green Frontrunner' <<https://stateofgreen.com/en/about/denmarks-green-transition/>> accessed 16 September 2025.

initiatives, but rather in a collective effort from every aspect of the economy. The implementation of the norms is strictly adhered to, and people are consciously taking up responsibility for the betterment of the surroundings and overall climate.

XII. SWEDEN'S CLIMATE POLICY FRAMEWORK

Swedish Climate Law is also referred to as one of the most fruitful and results-oriented globally because, of its great legislative framework, futuristic targets, and effective implementation, as profoundly seen in consistent recognition in international rankings and reports.

Sweden also has a specific climate act,²⁵ with an independent climate-policy council.²⁶ The legislation has legal binding principles, and its implementation is strictly adhered to. The goal of Sweden's policies and government is achieving net-zero greenhouse gas emissions by 2045. The act ensures the government's accountability as it requires climate goal integration in policymaking, necessary annual climate reports to the Parliament, and duty of outlining action plans every four years.²⁷

The Council is an independent advisory body that functions as a monitor of government policies, offering expert reviews and promoting public discussion, which results in transparency and economic validity. Sweden has paid special attention to carbon isolation and investment in carbon capture storage to address the remaining residual emissions, which have ambitious targets grounded in science and periodically reviewed. There is a mandatory rule of climate consideration in every aspect of the government's policy, which is one of the world's greenest countries because it has incorporated such practices in the real world.

²⁵ Swedish Climate Act (Klimatlag 2017:720).

²⁶ Swedish Climate Policy Framework Act (Klimatlag 2017:720).

²⁷ Christiana Jansen, "3 Leading Countries in Climate Policy" *Earth.Org*, 2023, available at: <https://earth.org/countries-climate-policy/> (last visited September 18, 2025).

XIII. THE NETHERLANDS' LEGISLATION AND POLICY FRAMEWORK

The Climate Act of the Netherlands, also referred to as *Klimaatwet*, is a comprehensive, legally binding framework made to achieve deep greenhouse gas (GSG) emission reduction while maintaining policy continuity across governments and ensuring a systematic progress track. The binding Emission target mandates a 55% reduction in GSG reduction by 2030, in contrast to 1990 levels, and a 95% reduction by 2050, with the further goal of carbon-neutral electricity production by 2050.

Governments have to make plans for the next five years, which means they have to make a climate plan every five years for the next ten years. These plans include things like energy, transportation, farming, the built environment, and more. Stakeholders also work together to make plans and make sure they are followed. The Dutch Act is different from other national climate laws because it has clear short-term and long-term goals, set reporting cycles, and cooperation between the government, business, and civil society.

The landmark case of Urgenda Foundation v. State of Netherlands,²⁸ where a Dutch environmental group, the Urgenda Foundation, and 900 Dutch citizens sued the Dutch government to require it to do more in order to prevent global climate change, was a game changer movement in the climate legislation around the world. The central question of the case was whether the state had a duty to impose further reductions on greenhouse gas emissions above the limits already established in Dutch climate policy.

Urgenda was successful in seeking an enforceable order; the court found that there were insufficient grounds to compel the State to adopt a higher level than the minimum level of 25%. This was, in part, as the obligation to stick to a higher percentage clashes with the discretionary power vested in the State. The court stated that preventing hazardous climate change is a global problem that requires global accountability, and all the countries are compelled to implement mitigation measures to the fullest extent possible.

²⁸ Urgenda Foundation v. The state of the Netherlands, Supreme Court of the Netherlands, 2019, ECLI:NL:HR:2019:2006.

XIV. INDIAN STRUCTURE OF CLIMATE POLICIES AND GAPS

India's plan for dealing with climate change is made up of separate laws and big national goals. But if you look closely, you'll see that there are some loopholes in the legal and institutional framework.

A. Indian Laws and its limitations

India has a lot of environmental laws that deal with the problems that Climate Change causes. There are also policies at the national and state levels that try to make things better. Most laws are about stopping pollution and saving water, not about cutting carbon emissions across the whole economy in a planned way. The methods and their implementation that takes place in developed nations are scrutinized with proper caution from the authorities, and there is a balance and check of each process involved in the policy as well as the laws. Indian policies, though one of the great measures by the government lack public participation and opinion.

The stakeholder and policy-maker is government itself, and there is indirect participation of the people, which makes it difficult for the policy to survive in the long run. The eight missions involved in the National Action Plan on Climate Change are working on the roadmap of the maximum use of natural resources in a sustainable manner. Our judiciary still faces delayed proceedings and limited enforcement capacity, which often hinders effective climate action. This is why the nation struggles to provide a comprehensive response to climate change.²⁹

B. National Policy Frameworks: The Yearning Approach

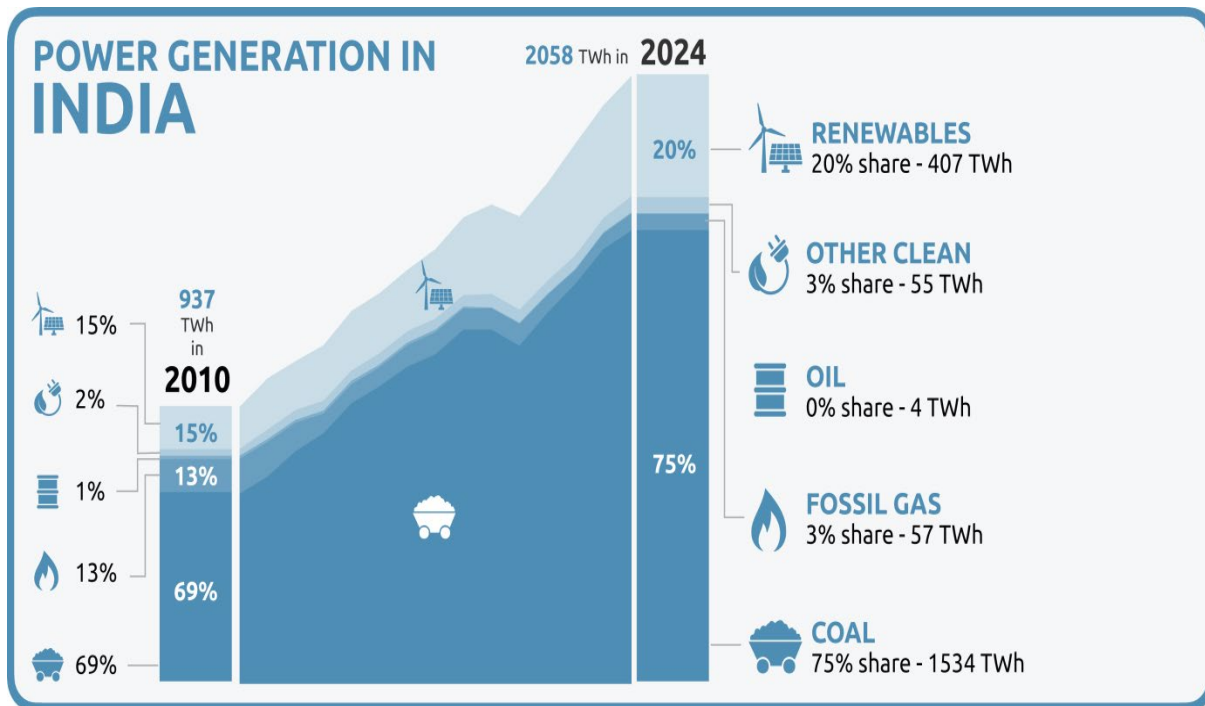
The National Mission on Strategic Knowledge for Climate Change (NMSKCC), the National Mission for Sustaining Himalayan Ecosystem (NMSHE) and State Action Plans on Climate Change (SPACC) are policy backbones of the country that govern and monitor climate norms on mass level. The National Action Plan on Climate Change

²⁹ 'Climate Change Programme | Department Of Science & Technology' <<https://dst.gov.in/climate-change-programme>> accessed 19 September 2025.

(NAPCC) of 2008 was guided by the Prime Minister's Council on Climate Change (PMCCC) however, this (PMCCC) is not active since 2015 and subsequent climate policy efforts have been driven through other mechanisms under the (NAPCC).

While all of these missions are promising, the mechanism lacks binding force, and its execution is often hindered by fragmented funding and institutional barriers. India has its Nationally Determined Contributions (NDCs)³⁰ with impressive targets, such as a 45% reduction in emission intensity by 2030 and reaching net zero by 2070. However, nothing is codified into a single-domestic legal binding mechanism or accountability.

India progress towards 100% clean electricity as per Climate Action Tracker:³¹



³⁰ Updated Nationally Determined Contribution (NDC) under the Paris Agreement, (2022), submitted to UNFCCC, available at: <https://unfccc.int/sites/default/files/NDC/2022-08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf>.

³¹ 'Policies & Action | Climate Action Tracker'

<<https://climateactiontracker.org/countries/india/policies-action/>> accessed 19 September 2025.

India relies heavily on fossil fuel-based power generation and most commonly used commodity is the coal, which accounts for 75% of the country's current electricity generation. The renewable sources (including large hydro) make up the second largest share of India's power generation at 20%. To meet the 1.5° C temperature limit, India's coal power generation would need to be significantly reduced by 2030 and effectively phased out by 2040 for which India will need international support at this scale.

Indian government shows no interest in closing any coal power plants before 2030 and is instead planning to increase the coal capacity. With continuous additions to the coal capacity and absence of any effective plan for early retirement, it is highly unlikely that India will see any 'phase-down' soon. India needs to shift itself to renewable energy sources like solar and wind along with investing in energy storage and modernizing grid. India already has ambitious targets especially for solar power, which just needs more push.

XV. SIGNIFICANCE OF INDIGENOUS & TRADITIONAL METHODS

India is creating new policies for the future, considering global technology growth. A complete climate plan for India, using its traditional knowledge, can help fight climate change effectively. These old systems are not just cultural symbols; they are proven methods that still work today.

A. Traditional Wisdom

A flexible system Sustainable farming uses natural materials to enrich the soil. Examples include Zero Budget Natural Farming (ZBNF)³² and mixed cropping. People have long used animal waste and plant-based fertilizers to help crops grow and keep the soil healthy. The Khasi³³ in Meghalaya and the Bishnoi³⁴ in Rajasthan live in harmony with

³² "Benefits – Natural Farming: NITI Initiative | NITI Aayog," *available at*: <https://naturalfarming.niti.gov.in/benefits/> (last visited October 3, 2025).

³³ "Culture & Heritage | East Khasi Hills | India," *available at*: <https://eastkhasihills.gov.in/culture/> (last visited October 3, 2025).

³⁴ "The Bishnoi: Revisiting Religious Environmentalism and Traditional Forest and Wildlife Management in the Thar Desert," *Environment & Society Portal*, 2024 *available at*:

nature. These groups show how traditional methods benefit the environment. Another approach is to grow millets, which need less water and are nutritious.

B. Use of resources & energy in a way that is eco-friendly

Old mud stoves, which were not very efficient before, are being improved to create less pollution. Indigenous cultures emphasise the use of resources only when necessary, which is a great example of self-awareness. Plans to inform the public should be carried out so people understand the effects and learn to use resources and energy fairly.

C. The Practice of Community-Governance

The panchayat systems and collective decision-making are traditional methods of governance that ensure the equitable and sustainable use of natural resources. According to the Customary Law of Tribes, hunting is prohibited during breeding seasons, and excessive tree cutting is not allowed.

D. Management of Water

Traditional methods of collecting water, like KUNDS and TAANKAS³⁵, STEP WELLS AND TANK IRRIGATION³⁶ in Rajasthan and Gujarat, should be used more in cities as well as rural areas. This helps to save water and ensures people have enough during droughts. The ZABO³⁷ system, which combines forestry, farming, and water conservation, also helps prevent water runoff and is another effective method to save water.³⁸

<https://www.environmentandsociety.org/arcadia/bishnoi-revisiting-religious-environmentalism-and-traditional-forest-and-wildlife-management> (last visited October 3, 2025).

³⁵ "Kunds of the Thar Desert - Rainwaterharvesting.org," available at:

<http://www.rainwaterharvesting.org/methods/traditional/kunds.htm> (last visited October 3, 2025).

³⁶ '(PDF) Revitalisation of Irrigation Tanks in Rajasthan' [2025] ResearchGate

<https://www.researchgate.net/publication/262120489_Revitalisation_of_Irrigation_Tanks_in_Rajasthan> accessed 3 November 2025.

³⁷ Usha Dewani, "Zabo: The art of impounding water" *India Water Portal*, 2014 available at:

<https://www.indiawaterportal.org/agriculture/farm/zabo-art-impounding-water> (last visited October 3, 2025).

³⁸ Samiksha Verma, 'Traditional Water Conservation Techniques in India' (2022) 10 IJRASET 705.

XVI. SUGGESTIONS AND RECOMMENDATIONS

The integration of indigenous and modern approaches is essential when formulating new policies. While current policies incorporate certain modern elements, they often lack traditional originality. Encouraging participatory approaches and combining indigenous wisdom with scientific innovation is crucial for achieving improved outcomes. Enhancing capacity building through community-based training, documentation, and the scaling of successful local techniques can foster and empower new ideas among marginalized groups. Legal and institutional support mechanisms are necessary to safeguard traditional knowledge systems and ensure their continued relevance in development planning. Gender-inclusive strategies, which recognize the role of women, often possess specific environmental expertise and adaptive skills. Nationwide promotion of traditional techniques as models for sustainable development should be encouraged.

Additionally, providing direct access to climate finance is a key factor that can significantly impact overall policy implementation. There is a need to strengthen the legal framework by having the principle of free, prior, and informed consent (FPIC)³⁹ to ensure that indigenous communities are consulted and can grant consent for any project that impacts their land or knowledge.

To bridge the gap between legislative and institutional reforms by shifting from an aspiring policy approach to legally binding and institutional accountability, there is a need for a single Climate Act for India, where NDCs are codified into a national legal framework, transforming them from international pledges into domestic enforceable mandates. To ensure that the new act does not stay just a law on paper, there should be a statutory politically independent expert body, which would provide science-based advice, set interim carbon budgets, and conduct independent audits of the governments'

³⁹ United Nations Declaration on the Rights of Indigenous Peoples, GA Res 61/295, UN Doc A/RES/61/295 (Sept. 13 2007), art. 19.

progress against the targets. The council could also have the power to make public recommendations to ensure transparency and accountability.

1. The composition of the council should be a mix of experts from climate science, economics, environmental law, and policy, along with social workers, representatives from relevant sectors and civil society.
2. Powers of the council should be to create a check and balance on governments' policies and actions by having the authority to evaluate government policies and proposing new initiatives by tracking progress towards climate goals as evident in Dutch models.
3. Accountability of the council should be directly answerable to Parliament and general public with transparency.
4. The budgetary consideration should include dedicated government funding to ensure independent operation

A major barrier to effective climate policy is political disconnect: the majority of the population prioritizes livelihood concerns over environmental issues and often overlooks them until they directly affect their daily lives. The overpopulation also strikes as one of the core issues of climate instability in demography, as in India.⁴⁰ The global population surpassing 8 billion in 2023 is alarming for climate crisis.⁴¹ The financial needs of India's green transition are immense, and the need to allocate proper funds in the budget of the nation is crucial to fill the gap in need and supply.

XVII. CONCLUSION

The analysis in this study draws a comparative line between India and the developed nation of the European region. The success of Denmark is a result of a robust and legally binding framework, yet India's current system is dependent on multiple segregated

⁴⁰ "Demographics and Climate Change," *Center for Global Development* available at: <https://www.cgdev.org/page/demographics-and-climate-change> (last visited October 3, 2025).

⁴¹ "The Connections between Population and Climate Change," *Population Connection* available at: <https://populationconnection.org/resources/population-and-climate/> (last visited October 3, 2025).

policies framework as well as different legislation that address different issues of climate-related problems, and there is no binding force backing the ambitious goals of the policies and laws due to which the nation often face implementation gaps.

By the findings of this study and the hybrid model that it proposes a clear roadmap can be concluded that by expanding the renewable energy infrastructure India can transition away from the overdependence and access use of coal. Furthermore, the proposed hybrid model suggests investing in energy storage and grid modernization and providing active support to communities through a just transition.

India is a potential future hub in almost every sector due to its rapidly increasing adaptability and global friendly laws and its goal to be a rich economy with many future prospects for the global world. For the country to develop and achieve this, legally binding policy framework must be developed for a bottom-up community-based strategy that formally recognizes and integrates India's traditional and indigenous knowledge systems. In other words not just laws alone, as India's path forward lies in its diverse communities and centuries-old traditions of managing land, water, and crop sustainability. Policies should not only protect indigenous land and rights but also directly involve local knowledge and offer climate finance to the sector that can implement and adapt accordingly.

The awareness programs and drills can help elevate the knowledge of Climate Change; this is high time that India scrutinizes the environmental instability that has been striking the country from past few years. The need of a robust climate protection force from grass roots level is crucial and need of the hour, India can unlock the powerful, uniquely Indian path to climate resilience. This hybrid model would ensure that the green transition is inclusive, equitable, and just for all its citizens.

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