LEGISLATIVE APPROACHES TO UPHOLD CARBON NEUTRALITY IN INDIA: AN ANALYSIS OF SUSTAINABLE USE OF ENERGY

by

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Abstract:

The term 'carbon neutrality' refers to a state where the amount of CO_2 released in the atmosphere is equal to the amount of CO_2 is extinguished from atmosphere by various means. India has targeted to reduce carbon emissions by 50 % by 2030 and will become carbon neutral by 2070. The major step towards this target is the amendment to the Energy Conservation Act in 2023 which amended the 2001 Act to specify the carbon trading scheme in India, with an objective to reduce carbon emission.

Sustainable use of a source of energy is of utmost concern in the present context, taking into consideration the growing population and use of energy to meet their needs. On the other hand, it is also necessary to protect the environment, hence development concerning reservation of energy for future generations became a barrier for many business houses. India being the signatory to the Paris Agreement, agreed limit the global warming to 1.5 degrees Celsius over pre-industrial levels. Whereas the new Act mandated the industrial and transportation sectors to obtain a percentage of their energy from non-fossil sources, and energy usage limits may be imposed on vehicles and ships.

Needless to emphasize that there are provisions to secure and protect environment in India and amendments to those may contribute to carbon neutrality. But the source of these laws are soft laws and customs, and the very nature of these statutes are not penal in nature unless backed by Indian Penal Code in some cases (Pollution). This paper thus designed to analyse the new amendment in Energy Conservation Act as well as other statutes present in this context to check

their ability to meet the set target by Indian government. While the scope of this paper is extended to an of analyse judicial pronouncements with this regard.

Keywords: Carbon-Neutrality, Legislations, Amendments, Judiciary, analysis.

Introduction

The idea of becoming carbon neutral has become significantly important in the fight against global warming, as the environmental problems has become more severe in recent years. Achieving a balance between the quantity of carbon dioxide (CO_2) released into the atmosphere and the quantity removed or offset—thus producing a net zero carbon footprint—is known as carbon neutrality.[1] As the need to prevent climate change grows more urgent, this idea has gained a lot of support in both corporate strategy and governmental regulations. The transition to carbon neutrality requires a diverse approach that includes sectors such as energy, transportation, industry, agriculture, and forestry. It entails not only lowering emissions using cleaner technology and practices, but also investing in carbon removal and offsetting measures to compensate for remaining emissions.

Achieving carbon neutrality necessitates collaboration and creativity among sectors, governments, and communities to transform existing systems and promote a greener, more sustainable future. India has set ambitious goals for increasing its renewable energy capacity, with a special emphasis on solar and wind power. Initiatives such as the National Solar Mission and the Green Energy Corridors Project seek to increase

[1]Manisha Singh, Pradeep Kumar Kamal, Carbon-Neutral Policies in India, Asian Business Law Journal, (2022), https://law.asia/carbon-neutral-policies-india/.

renewable energy deployment and integrate it into the national grid. In addition, India has pledged to increase afforestation and forest cover in order to sequester CO2 from the environment. Furthermore, regulations like the National Clean Air Programme[2] and the FAME India Scheme encourage greener mobility and the use of electric vehicles to minimise emissions from the transportation industry,[3] amongst which the recent amendments in Energy Conservation Act is likely to affect more in terms of carbon emission and sustainable use of energy.

This research paper focuses on the significance, challenges, and opportunities related with carbon neutrality. It will further investigate the factors driving this paradigm change, the implications for global climate action, and the approaches used by governments, organisations, and individuals to achieve a carbon-neutral society. By investigating resilience and implications of carbon neutrality, this paper will target to gain a better understanding of its significance in driving environmental policy, promoting economic resilience, and protecting the world for future generations with a special focus on use and production of energy. The Energy Conservation (amendment) Act 2023 has empowered the Central government to frame a carbon trading scheme, although the term "carbon trading" is neither defined in the parent Act nor in the said amendment. This amendment further places an obligation on the industries to use non-fossil fuels and the amount of such use shall be decided by the central government, but to what percentage the said sectors has to limit the use to achieve the target in specified time will be a major obstacle before the government. Moreover, whether judiciary will support the decisions of Parliament in such scheme is another point of concern to this context. Also, literatures shows that India fall short to use non-fossil fuels from 2016 and the nearest target is to be achieved by 2030, and this is serious concern in terms of rate of progress in achieving the promise made by Indian government.

2. Existing Legal Principles

[2]Press Information Beaurue, https://pib.gov.in/PressReleasePage.aspx?PRID=1655203. (Last visited 8th Feb 2024).

[3] Ministry of Heavy Industries, https://heavyindustries.gov.in/fame-ii. (Last visited 8th Feb 2024).

i. A report by ministry of Environment, Forest and Climate change, "Net Zero Emission Target"[4], is a comprehensive statement of how India can achieve the net zero emission target by 2070, although its is mere brief of what to be chieved and not the procedure to achieve and there lies the issue. Without defining appropriate pathway, the government of India has set a target irrespective of the fact that some goals are only possible to achieve if the all the plans work at its respective time. Absence of comprehensive data and support from all sectors, such target is aimless and doesn't pursue any value towards sustainable use of energy in India. Also, the '*National Action Plan draft in 2018*'[5] talks about the eight different mission works under this plan which is based on climate change in India. Among these eight only three are relevant to the context of this paper because it directly linked with emissions, green energy and sustainable habitat. This draft was made in reference to the agricultural scenarios and climatic conditions of India for past years and hence relevant enough to identify the status of climate due to carbon emission.

There are some Programs run by the 'Ministry of New and Renewable Energy'[6] in India under the name of 'green energy corridors'[7], both the 'phase I and phase II' and the respective states which have adopted these schemes are significant. These are the programs that promotes inter-state energy transmission and the central government support these projects with significant amount of funds in each case. This shows the involvement of Indian government in making its promise come true. Furthermore, the '*Energy conservation amendment bill*'[8], is the key highlight for this paper. The changes proposed and brought by this amendment signifies the problem on which this paper is depending upon. The insertion of carbon credit trading and the schemes relating to it without defining the important terms are debatable and major highlights of this bill.

[4] Press Information Bureau, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1945472. (Last visited 9th Feb 2024).
[5] Press Information Bureau, https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf (Last visited March 12, 2024).
[6] Ministry of New and Renewable Energy, https://mnre.gov.in/about-department/introduction/ (Last visited March 24, 2024)
[7] Ministry of New and Renewable Energy, https://mnre.gov.in/green-energy-corridors/ (Last visited March 24, 2024).
[8] PRS Legislative research, https://prsindia.org/billtrack/the-energy-conservation-amendment-bill-2022 (Last visited March 14, 2024).

3. Legislative contribution towards India's net zero emissions

This part will deal with the arguments based on various laws that governs India's environment with a special reference to carbon emission. It is pertinent to note here that India has already signed Paris Agreement by virtue of which, it is not a wrong assumption to take in consideration that India has shown its commitment to contribute to reduction of pollution from the environment by appropriate legislative governance. various statutory provisions that intend to reduce carbon emissions in India. Although, regardless of the term pollution as a whole, this chapter is only restricted to those legislative provisions that deal with carbon emissions, and in later stage, how it can contribute to net zero emissions is the major concern.

The recent amendments to 'The Energy Conservation Act' are the key to establish the intent of the Indian government towards reduction of use of fossil fuels and sustainable use of energy but the amendment to provisions relating to carbon trading is more debatable in the present scenario.[9] Carbon neutrality is a consequence which is having a direct relation with the carbon trading schemes in India and hence it is very necessary to analyze the schemes first. The carbon emission rate per person in India is 1.9 Tons per Person,[10] which is quite lower than other developed economies like US and China but that doesn't depict India releases less CO_2, it is just because the population in India is much higher compared to other leading CO_2 releasing countries.

3.1. Law governing Carbon neutrality in India:

Primarily it is important to understand the origin of the Carbon credit system and schemes that India has adopted. At the international stage, under Kyoto Protocol, one of the most debated concepts is "cap and trade";[11] which in literal term refers to a system where the government sets an upper limit of the emission and simultaneously issues an allowance limit for quantity of emission which is in consistent with the upper limit of the emission. The step taken by Indian government via amendment in Energy Conservation Act 2001, well fits under the term "cap and trade".

[9] PRS Legislative Research, Supra Note 13.
[10] Statista, https://www.statista.com/statistics/606019/co2-emissions-india/ (Last visited March 16, 2024).
[11] Centre for Climate and Energy Solution, https://www.c2es.org/content/cap-and-trade-basics/#:~:text=In%20a%20cap%2Dand%2Dtrade,market%20establishes%20an%20emissions%20price. (last visited March 16, 2024).

On a very similar note, "Carbon offset" comes into play when the actual trade happens. Offset acts like a credit which a company receives when they remove 1 unit of Carbon from the atmosphere. At the other hand, such a credit or offset can be purchased by another company to hide or reduce their own carbon footprints in the atmosphere.[12] The terminologies and practices primarily leaves a disputed question of conservation of atmospheric sustainability if every company who generates carbon footprints, start trading in a manner that hides the actuality of their released footprints in the atmosphere. The question of law in such circumstances as well as the mandates by the government becomes a leading role player.

Considering the mere law of the land, the Constitution of India levy a duty to both State and citizen to protect and conserve the environment under Article 48 A[13] and 51 A(g)[14] respectively. Which clearly means it's not only the duty of the State to frame policies time to time rather it is the duty of the citizens also to protect the environment. The concept of carbon offsetting is somewhere not lying on the line of instruction enshrined under abovementioned provisions. Moreover, the key issue related to Carbon Trading arises when there is a discussion of its definition. Neither in the Parent Act i.e., The Energy Conservation Act 2001 nor in its amendment the term is specifically defined. In lieu of that one cannot blame the citizens for the same, the formation of appropriate legislation is in hand of Legislative Authority of the State and the Constitution of India provides that power to the Parliament under Chapter XI.[15]

3.2. **Governance by International Regime:**

Apart from that, Article 253 of the Constitution empowers the Indian government to enact statutes that give effect to the International Agreements and Treaties.[16] Now the very basic question to note here that whether the definition "Carbon Trading" is also missing at international regime? To answer this question, it is better to understand that the term "carbon Trading" is used interchangeably with "Emission Trading". The

[12] World Economic Forum, https://www.weforum.org/agenda/2019/06/what-is-carbon-offsetting/ (Last visited March 16, 2024).
[13] INDIA CONST. art. 48, cl. A.
[14] INDIA CONST. art. 51, cl. A(g).
[15] INDIA CONST., Chapter XI.
[16] INDIA CONST. art. 253.

origin and parental governance of Carbon offsetting and Emission Trading is led by Kyoto Protocol. Whereby Article 17 of the Kyoto Protocol gave the discretion to the signatories to define *"...rules, modalities, Relevant Principles and Guidelines for the reporting, verification and accountability of the Emission Trading..."*[17] but there exists a precondition while participating in an emission trading between parties to this convention which is enshrined under 'Article 3 of the Kyoto Protocol'[18]. Article 3 basically lists the commitments or objectives for which such a trade has been recognized by this convention.[19]

Furthermore, 'Article 6 of the Paris Agreement' which deals with the procedure by which a state party can contribute to a better and sustainable environment at global level.[20] Moreover, this Article also gives enough discretion to the state parties to adopt any mechanism that can efficiently help in the process of sustainable use of energy. Since Carbon Neutrality is an imaginary condition, the exact mechanism has not been prescribed by any of the Statutes by its own motion. Although, by this provision, the credits can be transferred from one country to another to help them achieve their climate target.[21] By the transfer of credits, a particular company or a state as a whole may achieve a limit where the condition is very close to carbon neutral but in actuality the environmental condition doesn't even get any better treatment. The pen paperwork cannot decide the climatic conditions of a region unless the actual effect is shown.

Which again, drive us to the point that it is the duty of the party Countries to define the technicalities of emission trading, Hence, the responsibility to define the terms in appropriate legislations lies with the respective Government. It is also a point of concern that a universal definition of the rules and relevant principles has not been given by the international guidelines, but the discretion based on the environmental condition, has been assigned to the respective nations. Thus, till the specific definition comes into play, we have to interpret the literal and dictionary meaning of the term "emission trading" and thereafter equate it with the carbon neutrality in India.

[17] Kyoto Protocol, 1998, United Nations, 1998.
[18] Kyoto Protocol, 1998, Art. 3, United Nations, 1998.
[19] *Id* at 23.
[20] Paris Agreement, 2015, Art. 6, United Nations 2015.
[21] Sustainable Development Goals, https://www.un.org/sustainabledevelopment/climate-change/ (Last visited March 20, 2024).

3.3. Other Statutory governance:

Indian statutory governance over the environment is extended over various statutes, that although, directly not governs the carbon neutrality, but definitely been enacted with an objective to reduce atmospheric CO_2. *The Environment (Protection) Act 1986*[22] as well as the *Air (Prevention and Control of Pollution) Act 1981*[23], can contribute to the net zero emission target of India. Both the act came into force as a result of implementation of international regime COP26[24], and Article 253 gives both of them a requisite support to be in force in India. The Environment Act authorizes the Central Government to frame various national level schemes and programs that can help in achieving the target on time.

Section 3 of the Environment Act give immense power to the Central Government to enact rules for a healthy environment and shall also spent requisite expenditure to *"... protect and improve quality of the environment..."*[25]but this authority to exercise the power is often subjected to the several challenges of arbitrariness and some pollutants are not even covered by the ambit of this Act. Apart from the penalty imposed by this Act is not sufficient to fulfil the objective of the Act and thus it will be very difficult to claim this Act is very appropriate to govern net-zero emission. It is also pertinent to note here that every company or organization has their own criteria of discharging pollutants to atmosphere, but the Environment (Protection) Rules of 1986 has established certain guidelines to discharge pollutants with respect to some specific business.[26] Thus we cannot hold that, the rules are uniformly applicable to all the business entities. The covered business sometime tries to establish that they don't fall under the scope of these rules and escape the liabilities as well as impose their own set of rules.

3.4. Contribution of Energy Conservation (Amendment) Act 2022:

[22] The Environment Protection Act, 1986, No. 29, Act of Parliament, 1986 (India).
[23] *Air (Prevention and Control of Pollution) Act, 1981*, No. 14, Act of Parliament 1981 (India).
[24] United Nations, https://www.un.org/en/climatechange/cop26 (Last visited March 22, 2024).
[25] The Environment Protection Act, 1986, S. 3, No. 29, Act of Parliament, 1986 (India).
[26] Environment (Protection) Rules of 1986.

This amendment took place with a clear intention to fulfil the commitments that India has promised under COP 26.[27] The central government has been vested with the power to issue carbon credit certificates to any registered entities which follows Carbon Trading Schemes in India. This Amendment Act for this purpose defined "registered entities" under section 2 (q a) as *"...Any entity including designated consumers, registered under the Carbon Trading Scheme..."*[28] The said scheme further designed the greenhouse gas emission in the atmosphere and ultimately promotes the value of net zero emission. Further proviso to section 14A has been added to authorize any person other than designated consumers to purchase carbon credit on a voluntary basis.[29] Although the Carbon Trading Scheme is not the first scheme under this Act, there are several others like Performance Achievement Trade Scheme (PAT), Energy Saving Certificate, etc. Apart from that there is Renewable Energy Certificate under the Electricity Act 2003[30] which falls within the scope of schemes that may help in net zero emission.

4. Judiciary on Carbon neutrality:

This part focuses on the contribution of Indian judiciary in terms of sustainable use of energy and derivation of various doctrines that can restrict the excessive use of fossil fuels in India. This also includes a critical review of conflict of ideologies between Supreme Court and Parliament in terms of interpretations of several concepts related to net zero emissions or carbon neutrality. Before jumping to the landmark decisions, it is better to discuss the context in which the Apex Court of India considers such incidences. The judiciary has witnessed either the economic perspective of the carbon credit trading under the 'Income Tax Act 1961'[31] or, the environmental perspective with regards to healthy and pollution free environment. The concept of carbon neutrality or net zero emission has not been put forward before the Apex court as they are not governed by any statutory provisions rather function as a vision or mission for the ruling government in the interest of its citizens.

[27] United Nations, Supra Note 29.
[28] The Environment Protection Act, 1986, S. 2Q (a), No. 29, Act of Parliament, 1986 (India).
[29] The Environment Protection Act, 1986, S. 14A, No. 29, Act of Parliament, 1986 (India).
[30] The Electricity Act, 2003, No. 36, Act of Parliament, 2003 (India).
[31] The Income Tax Act, 1961, No. 43, Act of Parliament 1961 (India).

The expansion of the ambit of 'Article 21'[32] in the '*Maneka Gandhi*'[33] act as a base, for which Apex Court on several occasion directed the state to work in favor of the healthy environment. The societal development in terms of industrialization and modernization is simultaneously required while keeping in mind the importance of the environment. 'Vellore citizens welfare forum'[34] case is one of the best examples of how environment can be balanced against the environment. Speedy disposal of the environment related claims is also a concern in this petition by 'M.C. Mehta'. The speedy disposal of such cases is important for the point of achieving the targets on time.

The discussion of net zero emission not only restricted to the betterment of machineries and projects at the same time it is also important to loot that whether by constructing these projects the eco-system and the environment at a large is getting affected. Deforestation is one of the major consequences of projects like windmills and costal power plants. One of such incidents taken in consideration in *'Konkan Railways Corporations'*[35]case, where the construction of railway channel has been questioned for violation of ecosystem and forest properties.

4.1. **Relevant principles laid down by Supreme Court of India:**

The absence of specific provisions affects the judiciary to take appropriate decisions, but the myths of environmental law and the series of principle laid down by the supreme court of India on several occasions plays a vital role in preventing the people as well as the firms from degrading the environment in various ways. The concept of 'Absolute Liability' has been laid down in *'oleum gas case'*[36], where the harmful sulphuric acid leakage was challenged before the Apex Court. Thus, not only carbon emission is an issue for the environment, but there are also several other gases that can affect the environment in other manner. If the target is net zero emission, then what about the other residuary? Doesn't the target concern about the other harmful gases that may release during the operation of advanced mechanism.

[32] INDIA CONST. art. 21.
[33] Maneka Gandhi v. Union of India, 1978 AIR 597.
[34] Vellore Citizens' Welfare Forum v. Union of India, 1996 (5) SCC 647.
[35] Goa Foundation v. Konkan Railways Corporation, AIR 1992 BOM 471.
[36] M.C. Mehta v. Union od India (Sriram Food Fertilizer case), 1987 AIR 1086.

Other principles like 'precautionary principles'[37] and 'polluter pays principle'[38] also contribute to the net zero emission because based on the precautionary principle the government is entitled to take preventive measures against any carbon emission from industries and projects in India. But the Supreme Court of India has not framed any specific principles for protection carbon emission. Although, in terms of economic development, section 115BBG has been included in the Income Tax (amendment) Act whereby the transaction of the credit has been made taxable under 'capital receipt' head.[39] The taxability of the credit transfer cannot be a significant step towards net zero emission, but the record of the transaction may help the government to frame better policies which can actually help to achieve the promised target.

The term climate change was in issue in a recent case of 2019,[40] where the plaintiff before the national green tribunal argued against 'public trust doctrine'[41]. The hon'ble tribunal held that separate inclusion and definition of climate is not necessary to include in the Environment Protection Act, the impact assessment of the climate is enough to govern the climatic conditions of India.[42] Hence sometime judiciary also doesn't want to direct the legislature to amend the existing legislation because that may make the procedure more complex and there may be difficulty in terms of remedy.

5. Policies for better future perspectives:

This part deals with the schemes and policies with regards to carbon credit trading in India and how it can be made more efficient without harming the environment. In previous chapter we saw how absence of law on this specific subject matter led to a position where better governance becomes a challenge for India. But there are no restrictions launching policies and schemes that may govern the same issue at grassroot level. They may not act as core legislation or governing principles but

[37] AP Pollution Control Board v. M.V. Nayadu, 1992 (2) SCC 718.
[38] Indian Council for enviro-legal Action v. Union of India, 1996 (3) SCC 212.
[39] Ambika Cotton Mills v. Commissioner of Income Tax, (2001) 71TTJ (MAD) 871.
[40] Ridhima Pandey v. Union of India, Original Application no. 429 of 2022.
[41] Sankalp Mirani, "Public Trust Doctrine in Environmental Law", 1, JLRJS, 116, 116-118 (2022) https://jlrjs.com/wp-content/uploads/2022/03/27.-Sankalp-Mirani.pdf.
[42] *Id* at 45.

definitely can guide the legislature for a suitable amendment is necessary. To assess these policies, we must consider two major sectors relating to this paper, firstly renewable energy and secondly the environment and climate change. The respective ministries have launched several policies but there are no specific schemes made solely relating to carbon neutrality. Now the question arises whether the available schemes are enough to meet the objectives promised by Indian Government?

5. 1. Programs by *'Ministry of Environment, Forest and climate Change'*

In a series of programs launched by the said ministry, not all programs are relevant in this context. In 2008, this ministry has launched 'National Action Plan on Climate Change (NAPCC)'[43] after a "…vulnerability assessment and adaptation studies…" of climate change of different areas in terms of resources, energy, agriculture, infrastructure etc. This plan list down eight national missions among which 'National mission for enhanced energy efficiency', 'National mission on sustainable habitat', and 'National mission for a green India' are important while considering net-zero emissions.

Annual report of 2023-24 by ministry of Environment, Forest and Climate Change shows that in some sectors India has shown significant achievements to what they have set target in 2015. Like in 'non-fossil fuel based electricity installation capacity' is increased by 43.8% in August 2023, which India promised to achieve within 2030, hence the target was met almost 7 years before.[44] Similarly, carbon sink was targeted to '2.5-3.0 billion tons' by 2030 but within 2021, it has reached 1.97 billion tons.[45] Furthermore, India has promised to reduce emission intensity by '33-35 percent within 2030', but as by 2019 only India has reduced the emission intensity by 33%,[46]

[43] Press Information Bureau, https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf (Last visited March 28, 2024).
[44]Ministry of Environment, Forest and climate Change, https://moef.gov.in/moef/resource/annual-reports/index.html (Last visited March 28, 2024).
[45] *Id* at 49.
[46] Jyotshna Singh, Rakesh Kamal, India announces its INDC, pledged to cut emission intensity of its GDP by 33-35 percent by 2030.Down to Earth (2023) https://www.downtoearth.org.in/coverage/climate-change/climate-change-package.

The Hon'ble Prime minister in India, in COP-28, 2023 in UAE,[47] set a goal to reduce emission intensity by 45% within 2030.[48]

Also, Hon'ble Prime minister of India with Hon'ble prime minister of Sweden co-launched phase II of '*leadership group for industry transition*' for 2024-26 along with '*industry transition platform*'.[49] This will help both the countries to connect with the industries, governments, researchers and service providers to development of low-carbon technology.[50] The Indian government also promised to give financial support to 'emerging economies of energy transitions.' Indian government further co-hosted '*green credit program*' in COP-28 in UAE with prime minister of UAE in 2023.[51] The objective of this program is to provide incentives to those mechanisms which are 'pro-planet' in nature. According to both the co-hosts, this can be act as an effective tool to protect against climate change.

5.2. **Programs and developments from *'ministry of New and Renewable energy'*:**

Till 26, 2023, coal/lignite PSUs had 51 MW of wind turbines and roughly 1656 MW of solar capacity built. But Indian government planned that by 2030, 5570 MW of renewable capacity will have been installed by Total Renewable Energy.[52] Presently, 11 MW of rooftop solar electricity is installed by Coal India Limited (CIL). Producer of fossil fuels, Coal India, has allied itself and pledged to become a Net Zero Energy Company. By 2025-26, the Coal India Limited plans to have a 3 GW solar power programme to be establish. The capacity of 398.8 MW will be developed in total in FY2024, followed by 1443 MW in FY2025 and 1158 MW in FY2026 as per their report.[53] Further, NLC India ltd. is the first Central Public sector undertaking,[54] which successfully installed 1GW renewable energy and by 2030 it'll achieve more than 6

[47] Id at 49.
[48] Id at 49.
[49] Press Information Bureau, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1981722 (Last visited April,2, 2024).
[50] Id at 49.
[51] Press Information Bureau, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1967476 (Last visited April,2, 2024).
[52] Ministry of New and Renewable energy, https://mnre.gov.in/document-category/annual-report/ (Last visited April 2, 2024).
[53] Id at 57.
[54] Ministry of Coal, https://coal.gov.in/en/sustainable-development-cell/promoting-renewable (Last visited April 2, 2024).

GW renewable energy. Their significant project is the installation of solar power plant in 'Port Blair and South Andaman.'

The ministry of renewable energy has launched 'Green energy corridor' phase I and Phase II in 2015 to establish their own transmission plans.[55] This is nothing but inter-state transmission system where there is series of projects has to be established to use the renewable energy more efficiently. where the phase I has implemented by 'eight rich renewable energy states' i.e., Andhra Pradesh, Gujrat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu. The total project of Phase I cost around 10141.68 Cr. And Central government will finance it 40% while rest 40% will be taken up via loan and 20% will be given by STUs.[56] Likewise phase II has been implemented by seven states and cost around 12031.33 cr. Whereby, the central will finance 33% of it and rest will be given by STUs.[57]

In 2021, The ministry of renewable energy and its 'green energy corridor division' came up with a resolution that, 30% of the grants will be released only after successful implementation of the projects and its performance testing in other words after three months of its implementation.[58] Three major projects with respect to this resolution has been set up in Andhra Pradesh, Madhya Pradesh and Maharashtra, although they doesn't aim to mere carbon offsetting rather with a vision of sustainable living habitats.[59] Also, in 2020, the Hon'ble prime minister of India announced to develop the Ladakh as first carbon neutral region as a vision and for that INR 30,000 million package was decided.[60]

The commitments and the steps by the Indian government towards carbon neutrality is significant in terms of policies, schemes and projects but they are fund-based

[55] Ministry of New and Renewable Energy, https://mnre.gov.in/green-energy-corridors/ (Last visited April 4, 2024).
[56] Ministry of New and Renewable Energy, https://mnre.gov.in/gec-1/ (Last visited April 4, 2024).
[57] Ministry of New and Renewable Energy, https://mnre.gov.in/gec-phase-ii/ (Last visited April 4, 2024).
[58] *Id* at 62.
[59] Circular Ecology, https://circularecology.com/carbon-offset-projects/renewable-energy-india.html (Last visited April 5, 2024).
[60] Niti Ayog, https://www.niti.gov.in/sites/default/files/2023-03/Carbon%20Neutral%20Resource%20Efficient%20Strategy%20for%20Ladakh%20UT.pdf (last visited April 10, 2024).

activities or awareness programs that will help to enhance the knowledge and to an extent act as a guideline but restricted to the activities itself. The core of these missions and visions are not backed by any appropriate statutory provisions thus claiming these policies a governing tool will be a bad argument. Thousands of schemes may be launched but their applicability and appropriate utilization can only be governed by appropriate provisions in respective statutes.

Conclusion and suggestions

The discussion on carbon neutrality is more scheme and policy based rather than technicalities of the legislative compliances. The absence of legislation may not hamper the functioning of the schemes but where there is a time limit to achieve a goal, it is better to have strict compliance than mere guidance. The government of India thus doesn't want to complex the procedure. The core legislation and provisions can put complexity in approval as well as better functioning of the scheme and the target may not be achieved on promised time. Based on the statistics of the recent years in the emission rate, the government has set additional targets, but the analysis is somehow contradicting the previous data in hand. It seems that during 2019-2021, the emission rates have come down based on which the government has set the additional targets. But before 2019 the rates were slow enough to achieve the target within 2030. The period of 2019-21 shall be taken into account because in this period there was lock down and hence it is quite natural that the emissions were less than in the previous period.

There is no doubt the scheme is in place and can resolve the issues if they are implemented well in the respective places and in time, the only problem that stays with the whole context is statutory governance. Now the general query arises whether without appropriate legislation these programs can perform well within the stipulated time? The answer to this question cannot be answered in single word because the functioning of the project and the schemes completely depends upon the adaptability of the industry and the output of the same because being a scheme the amendment and

funding can be alter according to the needs and that is the reason these has been kept in the form of the scheme only and not otherwise.

As a part of suggestion, it will be notable that Supreme Court didn't get much opportunity in terms of exploring the technicalities of the schemes as the core legislations are not directly related to the schemes. But as the schemes are themselves a guideline to the better functioning of them the judiciary must consider the importance of these schemes and decide accordingly. The complexity of the core legislation is understandable but delegated legislation option is always available to the government and thus the guidance and governance can be done at the base level itself. Article 12 authorities must be well aware of the functions and the projects with respect to these schemes so that they can guide the citizens to lead their activities towards net zero emission. The established project must be funded according to their better output rather than establishing new ones.

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