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Clean Technologies and Environmental Protection

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Abstract

This research paper has been put forward by the researchers to examine the impact of clean technologies on environmental protection. The paper starts with an introduction wherein the researchers have defined the term clean technology along with its types and examples and its importance in the current scenario. Moving forward Chapter I talks about the factors contributing to the emergence of clean technology and its legal framework for which references have been taken from various acts, regulations and policies. Further, Chapter II lists out the roadblocks involved in the transfer of clean technologies from developed to developing nations, along with its viable solutions. Next, Chapter III mentions the positive impacts of clean technology and lays down the constitutional and penal mandates along with judicial pronouncements regulating clean technology. Finally, the paper concludes by stating the initiatives being launched from time to time by the government and the barriers it has been facing.

Keywords: Clean technology, constitutional and penal mandate, developing nations, environmental protection, sustainability

INTRODUCTION

Eradicating poverty and ensuring sustainability are the two most important concerns of recent times which can be tackled with energy. Expanding access to the modern energy is a crucial component of supporting human and economic growth, through directly providing the energy services for the fundamental requirements. However, in the context of delivering contemporary energy services to all, these are not the parameters that are most essential in nature, thus necessitating the switch from unclean energy sources to clean energy sources. Clean technologies can be defined as goods, services and practices that use renewable energy sources to scale back on or eliminate emissions and waste, hence reducing the demand on natural resources. It also refers to a wide range of ecologically friendly activities that strive to reduce waste pollution while simultaneously boosting production and efficiency. There are three types of clean technologies which aid in boosting the national economy without harming the environment. The first is, Mature Technology which is substantially less expensive and does not require a lot of technical support. The second is, Developing Technology which is expensive and requires additional technical support. The last is, State of Art Technology which demands expert local technical knowledge and is very competitive in terms of output capacity. In the event of an accident, this technology has very negative environmental effects. Clean technologies are all about operating in a way that addresses the need to protect these non-renewable resources. Simply expressed, the importance of clean technology lies in the fact that it aims to perform such actions which are undertaken or preferably eradicate the adverse environmental effects while promoting social and economic progress. Solar energy, a renewable resource that uses solar panels to absorb sunlight and produce electricity, can be classified as one of the examples of clean technology. Solar energy is environment conscious and many companies such as Apple and IKEA have made deploying solar

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panels a cornerstone of their business strategy. Recycling materials is yet another example of clean technologies that significantly boosts sustainability efforts. Companies such as Levi's encourage their customers to bring their unwanted clothes as they endorse the notion of recycling old clothes into new clothes, thus ensuring a sustainable environment.

RESEARCH OBJECTIVES

i. To address the issues involved in the transfer of clean technology from the developed to developing nations.
ii. To comprehend the legal framework for adopting the clean technology for protecting environment.
iii. To acknowledge the statutory provisions involved in the clean technology for environmental protection.

RESEARCH QUESTIONS

Chapter I: Is there any legal framework in India for mandatorily usage of clean technologies for environment protection?

Chapter II: What are the obstacles involved in the transfer of clean technologies from developed to developing nations?

Chapter III: How does the Constitutional and Penal provisions mandate the need to focus on clean technology for environmental protection?

RESEARCH METHODOLOGY

The researchers have used the doctrinal method i.e., reference from the available primary sources like Acts, Rules, and Regulations to study the present questions in hand. The researchers have also taken reference from secondary sources like books, articles, and newspaper reports to delve into the aspects of clean technology and environmental protection.

CHAPTER I: CLEAN TECHNOLOGY AND THE LEGAL FRAMEWORK

The government of India has unitary and federal form of governance. Thus, there is separation of powers between executive and legislative and in this process, electricity is the subject matter that comes under the concurrent list. This, both the parliament and the legislatures can make laws over this subject matter. However, in the case of conflict, the provisions of Centre will prevail. With the increase in battles of climate change, India is moving towards the use of clean technologies instead of conventional forms for electricity generation. The launching of National Solar Mission has set a target to achieve 450 GW of energy by 2030. As such, there is no specific legislation to govern the electricity sector, so its generation, transmission, distribution, trading and use of electricity is governed by the Electricity Act, 2003 as the renewable energy is the part of the electricity sector. This Act is implemented by the Ministry of Power, and it plays supervisory role in managing the development of electricity sector in India and the growth and development of renewable energy is governed by Ministry of New and Renewable Energy.

There are no specific guidelines or laws to oversee the implementation of clen technologies. However, there are several upcoming legislations enforced for the same and incentive is provided by the government of India for adoption of clean technology. For example, National Electricity Policy 2015, National Tariff Policy 2016, Electricity Act and National Rural, Electrification Policy etc. There has been evolvement with the future of cleantech in India because of macro developments such as climate change, depletion of sources, urbanization and rapid growth etc. India is a key market of clean technology as it is investing billions in this sector. The government of India has set an objective to come up with the Second Green Revolution and for this, it is coming up with legislations. Below listed are the factors contributing towards the emergence of clean technology [1]:

i. **Governmental Regulations:** The regulations being adopted by the government for proper implementation of clean technologies has favored the development strategy towards pro-environment stance via awareness among people and more active media.
ii. **Depletion of Natural Resources:** With the increase in population and urbanization there is immense pressure on the use of natural resources as there is depletion in coal reserves in the dense forest locations and the availability of water.
iii. **Adopting Newer and Cleaner technologies:** With the adoption of sustainable technology, India is contributing immensely towards the economy at unprecedent rate.
iv. **Strong Economic Growth:** The economy is growing at the rate of 4-5 % annually with the use of clean technology which is favoring environmental protection.
v. **Man- Environment Conflict:** The voice of the people residing in or near the natural resources are given importance as compared to the development of industry.
vi. **Global Climate Negotiations:** These negotiations have put pressure on rapidly growing countries like, India to adopt clean technology and not to repeat the mistakes made in the past.
vii. **Overview and Administrative Setup:** The human capital and economy is contributing towards the administrative setup like, renewable energy, water management, Science and technology, environment, climate change and forestry etc.

India is blessed to have various sources of renewable energy and the most prevalent ones are solar and wind. The orders of Centre and State can be appealed before the Appellate Tribunal for Electricity (APTEL), a specialized body to address the disputes pertaining to electricity and the decisions from here can be further challenged to the Supreme Court of India. The Centre on one hand, focusses on fixing the generic tariffs for renewable plants that are under the 2017 regulations of Central Electricity Regulatory Commission. The State wing on the other hand is concentrated with fixing of generic parameters that are set out under the tariff determination regulations. It is established that since the year 2015, that the governments are launching favorable policy initiatives which support the private investment sectors that are focused towards renewable energy sector.

As per the Paris Agreement, the government of India has made an investment of 42 billion Frans and has set a goal for 225 GW of renewable energy to be produced by 2022. In addition to this, investment has also been made for effective implementation of cleantech sectors which include e-mobility. A Standing Committee on hydrogen energy and fuel cells has been formed for the drafting of Hydrogen Energy Mission, wherein hydrogen would be generated from green power sources. For increasing participation of the private sectors, Electricity Amendment Bill, 2020 has regulated low subsidies and has set up enforcement authority for contractual disputes. As per Section 86(1)(e) of Electricity Act, the State Electricity Commission is required to specify the percent of electricity that has been purchased from renewable sources of energy. For further diversification of renewable sources of energy, the government has undertaken policy measures via National Tariff Policy which relates to renewable generation obligation. Another initiative by the government was with reference to the launch of Jawahar Lal Nehru Mission (JNNSM) for energy sector challenge. A coordination is made between National Institution for Transforming India (NITI) Aayog and Ministry of New and Renewable Energy (MNRE) for formulating Energy Storage Sector, 2019-32. Apart from all this, the government of India is working for several cleantech companies for distribution of electricity to all households of villages of urban and rural areas including the slums and the residents are encouraged for using solar energy instead of kerosene.

Amongst all, the following Acts, regulations and policies play a major role [2]:

The Electricity Act, 2003

i. This Act regulates the electricity tariff while supplying electricity to all areas.
ii. It promotes competition and protects the interest of the consumers and hence enhances measures of development.
iii. It rationalizes the distribution, transmission, generation, trading and use of electricity.

The National Electricity Policy, 2005

i. It lists out the guidelines for development for power sector and supplying electricity to all areas.
ii. It further protects the interest of the consumers and stakeholders.

The National Rural Electrification Policy, 2006

i. It focusses on supplying quality and reliable electricity to all areas at reasonable rates.
ii. It instigates the state government and the local authorities to come up with the objectives for rural electrification.

The National Tariff Policy, 2016

i. It seeks for affordable energy to all consumers of the country.
ii. It regulates tariff for inter-state electricity transmission and the role of regulators.

Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules, 2021

i. It offers a 'Must-run' status to renewable sources of energy.
ii. Lays down rules for compensating the producers of renewable sources at the rates specified in the agreement.

The financing capacity of the cleantech is not unified because there are several sectors which launch their own programs and schemes, and these sectors are under the jurisdiction of separate ministries for their overall administration. Thus, the respective sectors oversee the funding of its department.

CHAPTER II: THE OBSTACLES INVOLVED IN THE TRANSFER OF CLEAN TECHNOLOGIES FROM DEVELOPED TO DEVELOPING NATIONS

> *"We must leverage technology to expedite climate action and open the door to a secure, uncharted future on a healthy and a prosperous planet [3]."*

The deployment of clean technologies has been proposed as a key strategy to effectively combat climate change and generate a sustainable environment. As a result, all the countries must undertake urgent measures to combat global warming and greenhouse gas emissions, which have been a substantial menace to everyone on the planet, thus having a considerable impact on climate change. The relevance of transfer of clean technologies from developing to the developed nations has been outlined under Article 4 of the United Nations Framework Convention on Climate Change. It specifies that all parties to the Convention must pledge their support for the promotion and coordination for the transfer of clean technologies. The Paris Agreement further states that fostering innovation in clean technology at a rapid, sustained pace is essential to combat global warming, boost economic growth, and to further sustainable development. The United Nations Framework Convention on Climate Change's Technology Executive Committee had also stated that 'there is an imperative need to expedite and enhance technological innovation so that it can deliver environmentally, cost-effective, socially sound and better-performing climate technologies on a greater and a more widespread scale' in order to achieve the goals set forth under the Paris Agreement. Article 12 of the Kyoto Protocol states about the clean development mechanism wherein if the emission target has not been met by the developed nations within their territories, they can implement the project for emission reduction in the developing nations [4].

One of the major ways through which clean technologies can be transferred from developing to developed nations is via direct sales of the technology-using products from developed to developing nations. By assuring that their project is encompassed by bilateral investment treaties like Energy Charter Treaty, which aim to offer the host state some level of legal protection, investors in such a scenario potentially reduce the impact of FDI (Foreign Direct Investment) prohibitions. These treaties are intended to offer the host state some degree of legal protection. Additionally, these tools can be beneficial in assisting the investing companies in maintaining market openness and transparency as well

as in preventing discriminatory practices and acquisition. Over the long-term, such investors can also attempt to persuade governments to create adequate institutional policy frameworks for FDI in clean technology and to address the market rigidities that exist in abroad and favor the conventional fossil fuels.

However, there has been a persistent argument between the developing and developed nations on a global scale over how the developed nations have created more complex and cutting-edge technology than the developing nations, who struggle to even access the clean technologies due to a number of obstacles. The developed nations have contended that there should be a unified culpability among all the nations, meaning that each nation should share an equal responsibility towards a common goal, notably, to expedite and strengthen technological innovation in order to achieve more affordable and effective climate technologies on a broader and a more widespread scale. Thus, leading to obstacles in transfer of clean technologies from developing nations to the developed nations. They are as follows [5].

Intellectual Property Rights (IPR)

The first impediment to the transfer of clean technologies is the necessity for an effective intellectual property rights protection, appropriate tax treatment and a licensing regime while operating in a cutting-edge sector that makes use of specialized and a highly complicated technology. IPR are at the heart of innovation and are crucial in technology transfer therefore exporting to nations having a weaker IPR protection regime is prohibited as it could culminate in the unlawful multiplication of their protected innovations. On the other hand, a state that is having difficulty in gaining access promptly to innovative technology may believe that having a stringent IPR regime will make it easier to acquire clean technologies generated in more developed nations. Patents and trade secrets are forms of IPR that have functioned as significant roadblocks to the transfer of clean technology from developing to developed nations.

Patents

Patents which are one of the forms of IPR act as a barrier in transfer of clean technology as the procurement of patents is a relatively expensive procedure for the less developed nations with low economy. Even though a number of states have undertaken measures to speed up the process of granting patents in the area of clean technology, India and China still require around three to five years to complete the entire patent procedure. Furthermore, it can be troublesome if there is not a clear-cut definition of clean technology.

Trade Secrets

Trade secrets are another tool for securing IPR protection in addition to patents. Trade secrets are shielded from prying eyes for an endless amount of time without going through any procedural formalities. The notion of public interest such as the right to information is a key concern even though the justification for trade secrets encourages innovation, as the unequivocal protection of trade secrets may put the enterprises' confidential information at jeopardy. In some nations, the government requests specific information from businesses before they may enter a market, which could place their trade secrets at peril.

Compulsory Licensing

Compulsory Licensing is another issue that is detrimental in the transmission of clean technologies. The risk of expropriation for use in trade has been increased by this mechanism, which permits a state to waive a protected right and permit a non-patent holder to produce a generic replica of the technology without the approval of the patent's owner. States have claimed that a weak patent protection regime may not only dissuade exporters from employing their most cutting-edge clean technology but also impede the subsequent advances. Additionally, the developing nations confront difficulties in defining and categorizing clean technology precisely along with having an insufficient production capacity.

Royalty Payment and Taxation

The rate of withholding tax imposed on royalty income by the foreign government is another significant barrier to the transfer of clean technology. For the permitted use of IPR and other types of intangible assets, royalties are often paid to the IPR licensor and they are susceptible to the rates which have been outlined in the country's tax treaty. High tax rates not only diminish the after-tax profits of technologically advanced sellers, but also operate against the objective of promoting the development of clean technologies. Furthermore, the import of technical services which are offered by the contracting party to transfer clean technologies to less developed nations may be subjected to higher tax burden, thus creating a barrier in the transfer of clean technologies.

Legal and Institutional Barriers

In terms of institutional and legal barriers, some less technologically developed nations have weak legal systems as a result of poor regulatory and administrative capability, problems with governance, corruption and a lack of stakeholder consultation. UNCTAD (United Nations Conference on Trade and Development) analysis showcases that corruption impedes FDI which is a crucial factor for the transfer of clean technology. Additionally, less developed nations lack an efficient enforcement system for environmental laws, which limit their ability to draw in enterprises with a high level of technological competence. Investors and exporters are frequently kept in the dark about how the legal matters are handled at the national level due to issues including such as the lack of transparency, stringent rules and lack of access to publicly published legislations at the local level. As a result, the companies either rely on alternative strategies to reduce their risks or opt to transfer clean technology to another country.

Although the above challenges and barriers can prevent the transmission of clean technologies to the less developed nations, exporters who are knowledgeable about these issues should not be frightened to negotiate the intricate web of global trade [6]. The exporters should have faith in their potential to succeed and make prudent decisions as a result of the knowledge they have acquired about the legal realities of the transfer of clean technologies.

CHAPTER III: THE CONSTITUTIONAL AND PENAL PROVISIONS MANDATE FOR CLEAN TECHNOLOGY

The importance of clean technology is tremendous. Each and every step towards the use of sustainable technology provides support to our environment and makes a remarkable difference. Corporate sustainability and corporate social responsibility are the central themes around which industries are compelled to take initiatives to bring changes to the environment. With the increase in population and threat to the environment, the need to shift towards clean technology is increasing. The main aim of using clean technology is reduction in pollution and wastes and generation of efficiency and productivity. As per the reports, if India is looking for meeting net-zero emission target by the year 2070, then use of sustainable technology is the need of the hour [7]. Th positive impacts of clean technology are [8]:

i. **Reduce global warming:** Humans have been using fossils for long period of time and this is producing an increase in the level of greenhouse gases that is produced when these are burnt. As the gases tend to increase the temperature of the earth. The global warming further contributes to a number of negative impacts like, climate change, shifting of wildlife, rise in sea level etc. since, the clean technologies do not emit greenhouse gases, they are favorable to the environment and thus, will ultimately reduce global warming.
ii. **Replace fossil fuels:** The research study has successfully shown that by the year 2050, the clean renewable energy can easily replace fossil fuels.
iii. **Help our Economy:** Renewable and clean energies are the growth sectors that assist in the financial benefits of our economy. There would be open ended opportunities related to e-mobility, storing of power and generation of energy. The use of sustainable technologies is not only beneficial for the environment but the industries too.

iv. **Equity and Employment:** The developing and the underdeveloped countries have wide range of manpower and thus, the use of clean technology will enhance the employment rate of people in those areas. It would be fair chance of employment and will in turn beneficial for our planet.
v. **Less Pollution and waste:** Another impact of using clean technology is that it will reduce the level of pollution in the country that is increasing at an alarming rate and there will be less generation of wastes from the industries.
vi. **Less Risky:** The health issues to the workers in the industry that use clean technology is minimal as compared to the situation when other methods are used that are not favoring the environment.
vii. **Efficient use:** The raw material cost involved by using clean technology, waste management cost and the pollution level is decreased by efficient use of these technologies as all of this would enhance the productivity level, efficiency and effectiveness.

Apart from all these, there are other factors that play a major role such as, improving the energy security, improvement of the access to energy, mitigating the climate change. The main aim is to use reliable, affordable, modern and sustainable energy for the saving the environment and the people. India has the 4th most attractive market of renewable energy market [9]. The government is continuously making efforts by implementing policies and measured to get foreign investments in this sector.

Our Constitution, which is one of the most amended ones till date has progressed and transformed over the years. As a result of which, it has not only led to the elevation of environmental preservation to the status of a fundamental law of the land but has also established the fact that every citizen has the fundamental right to a clean and healthy environment [10]. Therefore, in order to defend the environment against the innumerable human attacks, a multiplicity of legal and penal procedures have been established.

Article 21 of the Constitution of India (hereinafter referred to as the Act), states that no one should be deprived of their right to life or personal liberty, unless in conformity with the procedures established by law. This Article extends its purview to encompass having a decent and a clean environment wherein the individuals have been guaranteed with the right to live in an environment which is devoid of diseases and other types of infections. The Hon'ble Court in *L.K Koolwal v. State of Rajasthan and Ors* [11]., ruled that Article 21 entails maintaining the quality of the environment, sanitation and health since failure to do so would have a detrimental effect on the quality of life of the individuals. Furthermore, in *MC Mehta v. Union of India* [12], the Court held that the wider scope of Article 21 has been advantageous in maintaining a stringent check on the measures which have been adopted by the government to safeguard the environment.

The nation's commitment to preserving and enhancing the environment has been explicitly stated in the directive principles of State Policy and the fundamental rights enshrined in the Act. The 42nd Amendment incorporated Article 48-A, which stated that the State shall strive to preserve and improve the nation's environment as well as its wildlife and forests. Additionally, this amendment also incorporated Article 51-A, which states that it is the responsibility of every citizen to preserve and enhance the natural environment, including lakes, rivers, forests and animals as well as to have compassion for all other living things. In *Rural Litigation and Entitlement Kendra v. State of UP* [13], the Hon'ble Court ruled that the citizens of India have an obligation to conserve and maintain the environment under Article 51-A, in addition to the obligation of the State to do so under Article 48-A. A three-judge panel in *T.N Godavaram Thirumalpad v. Union of India* [14], noted that Article 48-A and Article 51-A together establish the groundwork for a jurisprudence of environmental protection by placing a fundamental duty on the State and the citizens to safeguard and enhance the environment.

In order to preserve the public's health, safety and convenience, Chapter XIV of the Indian Penal Code (hereinafter referred to as the IPC), has outlined a multitude of provisions that make it illegal to commit activities that endanger human life by polluting the environment. According to Section 268 of

the IPC, executing an illegal act or omission that should have endangered the general public in danger or caused widespread harm to them is considered as public nuisance. Section 290 of IPC makes the offence of public nuisance punishable with a fine extending up to Rs 200. In *K. Ramakrishna v. State of Kerala* [15], the Hon'ble Court determined that smoking in public places constitutes as a public offence and is a crime punishable under Section 290 of IPC.

Section 277 of IPC states that anyone who willfully taints or pollutes the water of a public spring to the degree where it is unfit for general public use is penalized by up to three months in jail, along with a fine not exceeding Rs. 1000 or both. In *Emperor v. Nama Rama* [16], the Hon'ble Court ruled the defendant guilty of violating this provision by soaking aloe plants in river water to extract fibres, polluting the water and rendering it unfit for human use. In addition, Section 278 of IPC specifies that offenders may be subject to a punishment of up to Rs.500 if they intentionally disrupt the atmosphere of a community in order to endanger someone's health while living there or conducing a business in that respective community.

CONCLUSION

The government of India has been the driving force for bringing various initiatives by launching policies and schemes in the different clean energy sectors such as wind, air, solar etc. It has waived off up to 100% FDIs in various projects like Think Tanks and investments and automatic route projects etc. These efforts indicate that it has opened the door for investors and start-ups. In an attempt to achieve 175 GW of energy it is generating 40% of power electricity from the renewable energy. As stated by our Prime Minister, with the inauguration of COP-26 (Conference of Parties), efforts are being made to have transition towards net-zero. The growth is also enhanced by the investor's initiatives and interests. The private equity investments have received 836 million dollars for solar and wind power. This will also create job opportunities. All of this is because of the fact that investors comprehend that these investments will provide good returns as the demand for clean energy is increasing substantially.

However, there are few obstacles with clean technology such as, these cut the production cost, lack of information, weak or insufficient enforced legislations and depletion of natural resources. The reliance towards fossil tends to diminish so, the shifting towards clean technology is an opportunity to embrace and not a burden per se. with the coming times, it will achieve growth and advancements. India is offering strong support to get investments from foreign for its cleantech industry. Hence, more and more people across the globe are recognizing the need to continue this opportunity as it benefits the societal economic, and environmental sectors. All of these initiatives only require the signing of green power agenda.

Bibliography

Acts/Regulations/Rules/Referred

i. Constitution of India, 1950
ii. Directive Principles of State Policy
iii. Energy Charter Treaty
iv. Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules, 2021
v. The Electricity Act, 2003
vi. Indian Penal Code, 1860
vii. Kyoto Protocol
viii. National Electricity Policy, 2005
ix. National Rural Electrification Policy, 2006
x. National Tariff Policy, 2016

Articles

i. Bernard Colas, A Summary of Barriers to the Transfer of Clean Technologies and Solutions for Exporters.

ii. Deepak Chowdhury, Renewable Energy Regulations in India.
iii. Dibyanshu, Prateek Bhandari and Shikha Rastogi, The Legal Framework for Renewable Energy in India.
iv. Puja Mondal, Clean Technology: Meaning, Types, Objectives and Obstacles to Clean Technology.
v. Ruth Greenspan Bell and Clifford Russell, Environmental Policy for Developing Countries.
vi. S Shanthi, The Drivers of India's Booming Clean Tech Market.

Websites Referred

i. https://www.livelaw.in
ii. https://www.manupatra.com
iii. https://www.mondaq.com
iv. https://www.scconline.com

REFERENCES

1. https://www.indianchamber.sk/en/programs/clean-technology/274-overview-of-clean-technology-in-india, last visited 20/10/2022.
2. https://www.nishithdesai.com/SectionArticleList/32/Areas-of-Service/183/Cleantech.html, last visited 22/10/2022.
3. https://sdg.iisd.org/commentary/guest-articles/our-climate-crossroads-how-technology-can-lead-climate-action-and-sustainable-development/, last visited 03/11/2022.
4. https://www.legalserviceindia.com/legal/article-8510-clean-technologies-and-environmental-protection.html,last visited 03/11/2022.
5. Bernard Colas, Barriers to the Transfer of Clean Technologies, https://www.jstor.org/stable/pdf/resrep24957.11.pdf?refreqid=fastly-default%3A547722a870ede38245ebf7fd8fb3870d&ab_segments=0%2Fbasic_search_gsv2%2Fcontrol&origin=search-results, last visited 03/11/2022.
6. Ibid.
7. https://www.cnbc.com/2021/11/05/can-india-achieve-net-zero-carbon-emissions-by-2070-the-road-is-long-but-not-impossible.html, last visited 16/10/2022.
8. https://www.yourarticlelibrary.com/economics/environmental-economics/clean-technology-meaning-types-objectives-and-obstacles-to-clean-technology/39669 and https://www.twi-global.com/technical-knowledge/faqs/clean-energy#Benefits, last visited 22/10/2022.
9. IBEF Report.
10. Rishab Khare and Arjun Patel, India: Remedies Available Under Indian Legal Framework vis-à-vis Environmental Protection: An Overview, https://www.mondaq.com/india/clean-air-pollution/762298/remedies-available-under-indian-legal-framework-vis-vis-environmental-protection-an-overview, last visited 03/11/2022.
11. L.K Koolwal v. State of Rajasthan and Ors., AIR 1988 Raj 2.
12. MC Mehta v. Union of India, AIR 1987 SC 1086.
13. Rural Litigation and Entitlement Kendra v. State of UP, AIR 1987 SC 359.
14. T.N Godavaram Thirumalpad v. Union of India, (2002) 10 SCC 606.
15. K. Ramakrishna v. State of Kerala, AIR 1999 Ker. 385.
16. Emperor v. Nama Rama, (1944) 46 BOMLR 811.

