

INDIAN ENERGY LAW: INCAUTIOUS OF THE ENVIRONMENT?

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INTRODUCTION

“The relationship between the importance of building a society with dignity of life and national economic development which will result in people living in a clean and green environment without pollution, having prosperity without poverty, peace without fear of war and a happy place to live for all citizens of nation.”

- Dr. APJ Abdul Kalam¹

The paper discusses the interface of the present Environment law with the ever-growing energy law in India. Environment law today predominantly consists of the Air Act², Water Act³, Environmental Protection Act⁴ (umbrella legislation) and the Forest Act⁵. The Energy law regime in India is deeply characterized by the Electricity Act⁶. The Electricity Act, 2003 opens the door to immense possibilities in unleashing competition and trading, but at the same time opens a new area of policy risk, which it is supposed to mitigate. The act has an enabling framework to introduce competition in generation, and privatization in distribution, but work in terms of addressing transition issues remain undone.⁷ Both streams of law lay emphasis upon having a future that can sustain at the present conditions, if not better and certainly not worse. Environment law puts it forward in terms of pre-existing norms and energy law speaks of the same in terms of what has been produced and transmitted and what is to further entail.

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¹ Dr APJ Abdul Kalam, 'Evolution of a Happy Society' (2011) 4(3) NUJS L Rev 339.

² The Air (Prevention and Control of Pollution) Act 1981.

³ The Water (Prevention and Control of Pollution) Act 1974.

⁴ The Environment (Protection) Act 1986.

⁵ The Indian Forest Act 1927.

⁶ The Electricity Act 2003.

⁷ V Ranganathan, 'Electricity Act 2003 Moving to a Competitive Environment' (*Economic and Political Weekly*, 15 May 2004) <www.epw.in/system/files/pdf/2004_39/20/Electricity_Act_2003.pdf> accessed 6 October 2017.

What we are talking about is the nature and application of energy production and effects it has on the environment, with reference to renewable energy and sustainable development. The next point of discussion that emerges is of overlap of the two laws, *i.e.* environmental concerns raised by energy production.

Lastly, this paper seeks to justify and provide plausible solutions to the dearth of legislation in this field and a humble advice for the procurement and establishing of a statutory framework in keeping with this goal.

INDIAN EFFORTS

“There is no life without light.”

- SR Krishnamurthy Iyer⁸

In 2014, governments around the world spent more than five trillion dollars on energy subsidies,⁹ primarily, for fossil fuels. In the last two decades, the development of environmental jurisprudence in India has led to the establishment of the fact that the right to a clean environment is a fundamental right for us, and therefore its sanctity is unquestionable.¹⁰ Energy law has been described as the allocation of rights and duties concerning the exploitation of energy resources between individuals and the government, and between governments and between States.¹¹ Traditionally produced in the brownish hue, energy is swiftly shifting to a greener shade.

ENERGY

“The average cost of power generation compares quite favourably with new coal/thermal/gas based projects and captive diesel gensets. While in future the cost of renewable energy sources might decline, the cost of conventional energy law sources is bound to rise up.”¹²

⁸ S R Krishnamurthy Iyer, *Law relating to Electricity in India* (3rd edn, Universal Law Publishing 2016) 8.

⁹ ‘How Large Are Global Energy Subsidies?’ (2015) *Int’l Monetary Fund Working Paper No. 15/105* <www.imf.org/external/pubs/ft/wp/2015/wp15105.pdf> accessed 6 October 2017; Heather Payne, ‘Incenting Green Technology: The Myth of Market-Based Commercialisation of No and Low-Carbon Electricity Sources’ (2017) <www.nyuelj.org/wp-content/uploads/2016/09/Payne_ready_for_printer_1.pdf> accessed 6 October 2017.

¹⁰ C M Abraham, *Environmental Jurisprudence in India* (Kluwer Law International 2009).

¹¹ Adrian J Bradbrook, ‘Energy Law as an Academic Discipline’ (1996) 14(2) *JERL* 193, 194.

¹² Letter from Ministry of Non-Conventional Energy Sources, New Delhi to different States’ secretariats (7 September 1993); *A P Transco v Sai Renewable Power* (2011) 11 SCC 34.

Energy comprises of primary, secondary and subsidiary sources, and hence energy should not be restricted to the primary sources only. Electricity, though a secondary source, is easily harnessed and is the most important source of energy, being the most legislated upon one as well.¹³ Light is life and clean energy development can provide a valid ground for generation of income in the International arena.¹⁴

In the 1990s, global environmental problems, amongst other nations came to be highlighted worldwide. Nearly 60% of all Carbon Dioxide emissions that account for great portion of greenhouse gasses are originating from energy consumption.¹⁵ International Energy Agency projections reveal that about 90% of the primary energy production in future would come from transitioning and developing countries as against 60% in the last three decades.¹⁶ This happens because many developing and least-developed nations are well endowed with natural resources. The point here is that energy is necessary and it consumes resources, either which are a part of nature or whose synthesis is harmful for the nature. Therefore, either way, there is bound to be some adverse effect on the ecosystem. Now the question that arises is, whether the environment is worth risking in order to establish a better future, and if yes, then to what extent?

GENERAL JURISPRUDENCE BEHIND SUSTAINABLE DEVELOPMENT

Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.¹⁷ In a popular CNG related litigation entitled *MC Mehta v Union of India*¹⁸ the Supreme Court laid down the essential features of sustainable development, suited for India, they were; (a) the precautionary principle and (b) the polluter pays principle. The precautionary principle says that the authority should anticipate what needs to be done and what can be done and act accordingly, and the polluter pays principle states that once the

¹³ Rosemary Lyster and Adrian Bradbrook, *Energy law and Environment* (1st edn, Cambridge University Press 2006).

¹⁴ The Kyoto Protocol Mechanisms, *International Emissions Trading Clean Development Mechanism Joint Implementation* (United Nations Framework Convention on Climate Change) <https://cdm.unfccc.int/about/cdm_kpm.pdf> accessed 12 September 2017.

¹⁵ Parag Diwan and A C Khered, *Energy Law and Policy* (1st edn, Pentagon Energy Press 2009) 42.

¹⁶ 'World Energy Outlook' (International Energy Agency, 2006) <<http://www.worldenergyoutlook.org/media/weowebiste/2008-1994/WEO2006.pdf>> accessed 12 September 2017.

¹⁷ Brundtland Commission, *Our Common Future* (Oxford University Press 1987) 8.

¹⁸ *MC Mehta v Union of India* (2002) 4 SCC 356.

previous principle has been overridden then the polluter shall be the one paying.¹⁹

Also known as the *Shriram Gas Leakage Case*²⁰, it raised an enormous question on the practice and liability of big houses that are carrying out actions related to the public welfare. Though this case had the question of hazardous commodities' disposal and the question of absolute liability it attracts answered, this case is relevant in our scenario for the reason that it involved the question relating to something intrinsically related to public, just as is the case of energy producing entities. Enquiry of the same can be done under the following principles: **State action principle**

Under this principle if the body doing the particular work is involved in doing a work which also happens to fall under public policy, then the principle we have borrowed from the US jurisprudence will come into picture and the polluter will have to pay.

ABSOLUTE LIABILITY

The rule in *Rylands v Fletcher*²¹ provides that a person who for his own purpose brings to his own land something so dangerous that is likely to injure the surroundings he/she is liable for compensation. The rule was considered to be inapplicable in today's economy.

DEEP POCKET THEORY

The amount of compensation must co-relate to the financial capacity of the polluter and quantum of damage. In present day's context the term 'sustainable development' has grown more in the direction of 'sustainable' than in the direction of 'development'. The Electricity Act provides an open access to the transmission at the outset and in distribution in phases. It gives freedom for captive generation and multiple distribution licenses in a supply area. It provides recognition of trading as an independent activity. So, the construction of the jurisprudence of energy law shall not be in absence of environment law. Aiming to consolidate the renewable energy sector and give it an institutional structure, the Union government has drafted the National Renewable Energy Bill, 2015. After it is passed by the Parliament it would enable a National Renewable Energy Policy, Renewable Energy Corporation of India, an advisory group and a committee on the same. Through a separate law, MNRE would get freedom to execute projects and not depend on other ministries and departments for necessary clearances, said officials. The law comes at a time when the government has announced

¹⁹ Gurdip Singh and Amrita Bahri, *Environmental Law* (2nd edn, EBC 2016) 70, 71.

²⁰ *MC Mehta v Union of India* (1986) 2 SCC 176.

²¹ *Rylands v Fletcher* [1868] UKHL 1.

scaling up of renewable power generation to 1.75 lakh GW by 2022 – out of which solar power alone is envisaged at 100 GW.

APPLICABILITY ON THE SAME PARALLEL

Much like the build of Intellectual Property law and Competition Law, which are joined by the final objective of consumer satisfaction²², Energy law and Environment law shall be read in accordance for the very reason of their utility towards a sustainable future. The moment we merge the concepts of energy law and environment law into one and think about it in the terms of its utility according to the sociological school of law, the most obvious choice that comes to mind is that of renewable energy. The direction of renewable energy is not only progressive, but also beneficial.

RENEWABLE ENERGY

The RERC has enacted 2007 and 2010 Regulations [Rajasthan Electricity Regulatory Commission (Renewable Energy Obligation) Regulations, 2007 and Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010] requiring the Captive Power Plants and Open Access Consumers to purchase a minimum quantum of Energy from Renewable Energy Sources in order to effectuate the provisions of the Constitution of India, the Electricity Act and the National Environment policy, since the energy generated from renewable source is pollution free. The right to live with healthy life is guaranteed under Article 21 of the Constitution of India. The object of imposing renewable energy obligation is protection of environment as much as possible in larger public interest.²³

A draft resolution by the name of National Renewable Energy Bill, 2015²⁴ has been compiled. The Bill seeks to familiarize the sense of 'energy' that carries the connotation of yesteryears and mold it into new spheres, and the purpose of this proposed act is to promote the production of energy through the use of renewable energy sources in accordance with climate, environment and macroeconomic considerations. This Act shall in particular contribute to ensuring fulfilment of national and international

²² Planning Commission of India, 'Consumer Protection and Competition Policy' <<http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11vl-ch11.pdf>> accessed 17 September 2017.

²³ *Hindustan Zinc Ltd v Rajasthan Electricity Board* (2015) 12 SCC 611 para 45; *Subhash Kumar v State of Bihar* (1991) 1 SCC 598.

²⁴ 'National Renewable Energy Draft' <<http://mnre.gov.in/file-manager/UserFiles/draft-rea-2015.pdf>> accessed 6 October 2017.

objectives on increasing the proportion of energy produced through the use of renewable energy sources.²⁵ It mandates a national policy for renewable energy, which shall come within 6 months of the Act coming into force.²⁶

Integrated Energy Resource planning (IERP) is a strategic plan for securing reliable and cost-effective energy resources. The plan is an exhaustive, research-based examination of potential risks and opportunities in procuring future energy supplies. Such a planning exercise will examine all available energy-resource options, including supply side as well as demand side options and evaluate all resources to maximise energy, environmental, and economic security²⁷

The terms 'energy' and 'power' have no wide legal connotation attached to them, courtesy their absence from the Black's Law Dictionary, yet in the common parlance, both these words can be used interchangeably.

The definition of 'power' as provided by the Factories Act, 1948 is very restrictive, and does not take any such power which is not mechanically transmitted or is produced by human or other organic means.²⁸ Considering the source of the authority, we can also say that this definition presumes that 'power' and in turn 'energy' can arise only from a place of the same genus as 'factory', hence leaving the greater lot of renewable energy sources to no avail under its ambit. On the other hand, the Electricity act provides for the definitions of 'electricity'²⁹ which is only electrical energy and no other. This definition again leaves the likes of biogas, solar energy and tidal energy till a great extent.

A separate creation was done in the direction of renewable energy in the form of a different executive head of the government in the year 1992. Earlier the same was known by the name of Ministry of Non-Conventional Energy. The Ministry of New and Renewable Energy (MNRE) is the nodal Ministry of the Government of India for all matters relating to new and renewable energy. The broad aim of the Ministry is to develop and deploy new and renewable energy for supplementing the energy

²⁵ Ministry of New and Renewable Energy, 'National Renewable Energy Act 2005' <www.indiaenvironmentportal.org.in/content/414501/national-renewable-energy-act-2015/> accessed 3 October 2017.

²⁶ National Renewable Energy Bill 2015, s 15(1).

²⁷ National Renewable Energy Bill 2015.

²⁸ Factories Act 1948, s 2(g).

²⁹ Electricity Act 2003, s 2(23).

requirements of the country.³⁰ Following are the different types of new and renewable energies available to us, and their analysis on the fronts of development of laws, technology and effects on society:

SOLAR ENERGY

“Solar Energy, like salvation is free. Buying equipment for the same is more like payback.”³¹

Development of Solar Cities Programme is an initiative by MNRE, which would aim at developing more than 60 solar cities during the 12th Five Year Plan period. The proposed programme on ‘Development of Solar Cities’ would support/encourage Urban Local Bodies to prepare a Road Map to guide their cities in becoming ‘renewable energy cities’ or ‘solar cities’ or ‘eco/green cities’. The programme aims to consolidate all the efforts of the Ministry in the Urban Sector and address the energy problem of the urban areas in a holistic manner.³² The Goal of the program is to promote the use of Renewable Energy in Urban Areas by providing support to the Municipal Corporations for preparation and implementation of a Road Map to develop their cities as Solar Cities. The objective of the programme is to oversee the implementation of sustainable energy options through public - private partnerships.³³

We are blessed with Solar Energy in abundance at no cost. The solar radiation incident on the surface of the earth can be conveniently utilised for the benefit of human society. One of the popular devices that harnesses the solar energy is solar hot water system.³⁴

BIOENERGY/BIOGAS

Biogas is an established yet novel concept of energy production. The concept of fixing atmospheric Carbon Dioxide by planting trees on a very large scale has attracted much attention. There is little doubt that halting of deforestation and the replanting of large

³⁰ ‘Introduction’ (The Ministry of New and Renewable Energy) <<http://mnre.gov.in/mission-and-vision-2/mission-and-vision/>> accessed 3 October 2017.

³¹ ‘Sun Through the Centuries: A Brief History of Solar Energy’ (*Solterra*, 12 February 2015) <www.solterra.com/sun-through-the-centuries-a-brief-history-of-solar-energy/> accessed 3 September 2017.

³² ‘Clean Energy Solutions Center: Assisting Countries with Clean Energy Policies’ (National Renewable Energy Laboratory, September 2013) <www.nrel.gov/docs/fy13osti/60277.pdf> accessed 14 October 2017.

³³ Naresh, ‘Programmes’ (*Vikaspedia*, 28 July 2014) <<http://vikaspedia.in/energy/policy-support/renewable-energy-1/programmes#section-21>> accessed 11 September 2017.

³⁴ ‘Solar Water Heating Systems’ (The Ministry of New and Renewable Energy) <http://mnre.gov.in/file-manager/UserFiles/brief_swhs.pdf> accessed 13 September 2017.

areas of trees would bring many environmental benefits, but absorption of Carbon Dioxide by a new forest plantation is a once and for all measure 'buying time' by fixing atmospheric Carbon Dioxide while the trees mature taking 40-60 years.³⁵ A molecule of methane of biogas, is 30 times more effective than a carbon dioxide molecule in trapping earth's radiated heat.³⁶

The Indian authorities have also taken into account the utility of the same in the village community. Indian government provides subsidy in the sphere of biogas generation. The plants that are purchased can be purchased in the subsidy brackets of Rs 60,000³⁷, Rs 52,500 and Rs 45,000 depending upon the capacity of the biogas plant.³⁸

HYDROELECTRICITY

A surprising fact of the same nature is that the primary purpose/benefit of 5% of dams in USA is 'recreation'³⁹ and Hydroelectricity amounts to only 2%.⁴⁰

India is blessed with immense amount of hydroelectric potential and ranks 5th in terms of exploitable hydro-potential on global scenario, and has a better perspective towards hydroelectricity. As per an assessment made by CEA, India is endowed with economically exploitable hydropower potential to the tune of 1,48,700 MW of installed capacity.⁴¹

Now is the time to come to the aspects of environmental harms that hydroelectricity causes. Unlike few other renewable sources of energy, the ecological damage per unit produced is probably greater for hydroelectricity than for any other energy source.⁴²

³⁵ Godfrey Boyle, *Renewable Energy: Power for a Sustainable Future* (2nd edn, Oxford University Press 2006) 137.

³⁶ *ibid.*

³⁷ *Ramji Patel v Nagrik Upbhokta Marg Darshak Manch* [2000] 3 SCC 29.

³⁸ Naresh, 'Programmes' (*Vikaspedia*, 28 July 2014) <<http://vikaspedia.in/energy/policy-support/renewable-energy-1/programmes#section-21>> accessed 16 September 2017.

³⁹ 'Role of Dams' (International Commission on Large Dams) <http://www.icold-cigb.net/GB/dams/role_of_dams.asp> accessed 23 September 2017.

⁴⁰ 'Hydroelectric Power' *Dictionary of American History (Encyclopedia.com)* <<http://www.encyclopedia.com/science-and-technology/computers-and-electrical-engineering/electrical-engineering/hydroelectric>> accessed on 23 September 2017.

⁴¹ 'India Hydro Energy' (Energy Alternatives India) <<http://www.eai.in/ref/ae/hyd/hyd.html>> accessed 1 October 2017.

⁴² 'Sociopolitical Effects of Energy Use and Policy, Committee on Nuclear and Alternative Energy Systems, Risk and Impact Panel, Reports to the Sociopolitical Effects Resource Group' (Washington DC: National Academy of Sciences 1979).

Building a hydroelectric project takes a few years, changes the surrounding geography and disturbs the biological balance. It is self-explanatory that the same ends up distorting the natural river routes. No silt in the previous agricultural areas is another one of the problems.

REQUISITE OF THE GREENER FORM

“Energy is allowed to influence income growth indirectly by capital accumulation through input substitution.”⁴³

It is of utmost importance and urgency to have an alternate greener source of energy; we must move on to the requirement of why does it also need to be renewable. When we talk about environment conservation, we mean to say that there must be (1) sustainable development and (2) leaving the environment undisturbed until the extent possible. Therefore, once we start talking about conservation, we end up focusing on both the points in a quasi-negative way. If we conserve a resource for its use in upcoming times, we do not cut down on the effective use of the resource, but rather use it in the future and hence pollute further in the future. Therefore in the present we live in an environment cleaner than the one we would have had (had we used the resources), and hence it is closer to sustainable development.

MOVING AWAY FROM CONVENTIONAL OIL USAGE

According to the International Energy Agency (IEA) (2006), fossil fuel will account for 77% of the increase in world primary energy demand between 2007 and 2030, with the major contribution coming from countries in a transitional stage of economic development.⁴⁴

Factors such as enhanced human rights and environmental awareness at the global level have led to declaration of general good governance guidelines for international forums like UN’s global compact, as well as specific sustainability guidelines for oil industry by international organizations. In light of these developments, most of the major forums have started annual voluntary public disclosure of their sustainability efforts. All these lead to renewable energy.

⁴³ Filippo Lechthaler, *Economic growth and Energy Use During Different Stages of Development: An Empirical Analysis Environment and Development Economics* (Oxford University Press 2017) vol 22, 26, 50.

⁴⁴ World Energy Outlook 2006’ (International Energy Agency, 2006) <<http://www.worldenergyoutlook.org/media/weowebiste/2008-1994/WEO2006.pdf>> accessed 16 September 2017.

In the same direction, we saw a movement by our legislature. The Energy Conservation Act was one such move and it saw institution of various organizational structures. The first of such organization, Petroleum Conservation Action Group, was formed in 1976 by Ministry of Petroleum and Natural Gas. The group was subsequently registered as a society under the Society Registration Act, 1860 and called Petroleum Conservation Research Association (PCRA).⁴⁵ Established as a nodal agency for promoting fuel efficiency in the country,⁴⁶ the association continues to function through its Governing Body and Executive Committee.⁴⁷

The Advisory Board on Energy, set up under the same authority also recommended setting up of a distinct Energy Conservation Organization to integrate the energy conservation efforts of the Central Government just five years after the formation of PCRA.⁴⁸ However the Government again responded with a Society, registered under the Societies Registration Act, known as Energy Management Centre (EMC). Prior to this, an Energy Conservation Cell was also set up in the Ministry of Power.⁴⁹ Scholars have made numerous proposals, falling under the scope of soft law like laying down comprehensive voluntary codes,⁵⁰ formulation of a 'natural resource charter', and setting international standards for environment related governance.⁵¹

Hence, the first action must be to stop using oil in the way we have been using until now. Even though we have not developed a lot of tech in de-polluting the effects of coal and its subsequent energy, oil has been as major and an equally potent polluter. If a move from the conventional 'oil' is *easier said than done*, we have a call to make sure that until it is done, we act in a way that does not hamper the environment so utterly.

⁴⁵ A Bhattacharyaa, 'Energy Conservation in Petroleum Industry' in Pradeep Chaturvedi, Shalini Joshi (eds) *Strategy for Energy Conservation in India* (Concept Publishing Company 1997) 77.

⁴⁶ 'Annual Report 2013-14' (Petroleum Conservation Research Association) <www.pcra.org/pcra_admin/writereaddata/upload/reportts/Annual_Report_2013-14.pdf> accessed 31 August 2017.

⁴⁷ Priya Anuragini, 'Bureau of Energy Efficiency: India's Institutional Regime to Conserve Energy' (2016) 8 RMLNLUJ 167-69.

⁴⁸ Parag Diwan and Prasoon Dwivedi (eds), *Energy Conservation Measures in India, in Energy Conservation* (2009) 29.

⁴⁹ Pradeep Chaturvedi and MP Narayanan, *Energy Conservation Perspectives for India, in Strategy for Energy Conservation in India* (Pradeep Chaturvedi and Shalini Joshi eds, 1st ed, Concept Publishing Company 1997) 18.

⁵⁰ Paul Collier and Benedikt Goderis, 'Prospects for Commodity Exporters: Hunky Dory or Humpty Dumpty?' (2007) 8 World Econ 22, 23.

⁵¹ Arpita Gupta, 'International Oil Corporations in the Era of Globalisation: Third World Experience Challenges and Opportunities' (2012) 12 NULJ 57, 76.

EFFECTIVE OVERLAP

Judging by the nature of both these lines of legislations, requisites and externalities of one qualify as 'regulated' under the second. The areas and objects that the environmental laws protect are harnessed and degraded by the energy suppliers, and in turn energy suppliers work under the command of Energy Laws. Hence, objectively, proper carriage of Energy Laws affects environment in one way or another. Hence, energy supplying structures should also come under the ambit of environmental regulation.

DEFINITIONS

In environmental protection act, there is no particular mention of power plants. There is a generic mention of the term 'pollutants', which is neutral to the origin of the same.⁵² Now the primal question to be answered is where to implicate liability, at the point of creation of energy, where there is substantial pollution or at the point of its usage, where it trickles down to pollution coupled with environment disruption and degeneration? A progressive and stringent approach would be to protect at both ends.

Electricity Act defines 'generating station' as any place that generates electricity.⁵³ This definition restricts the coverage of non-electrical sources from coming under the ambit of the only comprehensive piece of energy legislation at hand. However, since the superset is the domination of the environmental laws, we can still count on the environment legislations.

General rules of establishing structures of energy production are that:

- No industrial plant can be established without the permission of the State Board established under the Air Act.⁵⁴
- No person running an industry shall exceed the standards set up by the State Board established by the Air Act.⁵⁵
- No person can discharge effluents in any stream unless there is a sanction from the statutory body.⁵⁶

⁵² Environment Protection Act 1986, s 2(b).

⁵³ Electricity Act 2003, s 2(30).

⁵⁴ Air Act 1981, s 21.

⁵⁵ Air Act 1981, s 22.

⁵⁶ Water Act 1974, s 25.

- Disposal of wastes in a proper manner is also required under the present law, and the same can be regulated according to the needs of the state government.⁵⁷

The Water Act uses the expression 'trade effluent', which means any matter discharged in water that comes from non-domestic sources.⁵⁸ Unlike the Air Act, Water Act does not make sure that pollution of water or discharge of effluents in water at any point of time at every point in the state is prohibited. At times, the area of operation of the Water Act can even be restricted.⁵⁹

By and by, the Environmental Protection Act on the other hand provides a scope for wider interpretation, as the expression of 'occupier' is any person who is under the charge of handling any factory or premises.⁶⁰ This brings us to the definition of 'factory'. The same must be established if we have to imply any liability on the government for polluting through power plants.

There is no mention of power plants or other polluting structures that generate energy. All that environmental laws talk about, are chimneys⁶¹ or industrial plants.⁶² A generic and literal interpretation of the word would tell us that a 'factory', which can be interchangeably used with 'plant', is a premise that produces commodities having industrial importance and by using technology. However, the definition of 'factory' in the Factories Act, 1948 is totally based on the capacity of holding/employing workers.⁶³ The same would qualify under section 2(30) of the Electricity Act, if it produces electricity.

Even a nuclear energy production site is termed as a 'plant', and hence the following example shall be clearing the air on the topic.

In *G Sundarrajan*⁶⁴, the appellants opposed the establishment and functioning of the Kudankulam Nuclear Power Plant in Tamil Nadu on the grounds of environmental pollution and safety. The appeal was under Article 32 to enforce Article 21: even if the appeal was dismissed, the Supreme Court gave directions for safety of environment from nuclear wastes. It is not for courts to determine whether an action in fulfilment of

⁵⁷ Factories Act 1948, s 12.

⁵⁸ Water Act 1974, s 2(k).

⁵⁹ Water Act 1974, s 19.

⁶⁰ Environmental Protection Act 1986, s 2(f).

⁶¹ Air Act 1981, s 2(h).

⁶² Air Act 1981, s 2(k).

⁶³ Factories Act 1948, s 2(m).

⁶⁴ *G Sundarrajan v Union of India* (2013) 6 SCC 620.

a policy is fair, reasonable or required.⁶⁵ Many countries started withdrawing from their nuclear plans for the reason that the harms of unforeseen disasters are too great.⁶⁶

DEFENCE

The Environmental Protection Act acts as an interface between the governments at the Central and at the State levels, as is exemplified by Section 3 of the Environmental Protection Act, which says that in the ambit of environment, where the State has the power to make/draft laws, even the Centre can take certain actions. The act also enumerates the principles of sovereign immunity and liability of governmental officials, in the reverse order in its provisions.⁶⁷

There is exemption given to government bodies if they end up causing an accident by the way of some hazardous substance during the time of energy production⁶⁸, unless there is serious allegation and subsequent finding that the fault was from the side of government, in that case the head of the government department shall be prosecuted, obviously only if he wasn't aware of such developments.⁶⁹ Section 2(a) of the Public Liability Insurance Act provides the definition of 'accident' and the definition of 'factories' is given under the Factories Act, 1948.

A major problem with the present scenario is that the courts will take cognizance either when a person makes a complaint according to law or when the complaint comes through proper governmental channel.⁷⁰ The same is difficult in practicality if a power plant is disrupting the environmental balance, and it might as well be reduced to nothing if we take into consideration the aspect of defence that 'good faith' brings.⁷¹

CONCLUSION

The interface of the said streams of law trickles down to the dependence of the two on each other, which even though is not apparent, but is not oblivious. Energy is required, and its requirement is not going down in the upcoming times, and so is the case with

⁶⁵ *MP Oil Extraction v State of MP* (1997) 7 SCC 592.

⁶⁶ *MP Oil Extraction v State of MP* (1997) 7 SCC 592, para 24.

⁶⁷ Environmental Protection Act 1986, s 17.

⁶⁸ The Public Liability Insurance Act 1991, s 4(3); Gurdip Singh and Amrita Bahri, *Environmental Law* (2nd edn, EBC 2016) 188.

⁶⁹ Public Liability Insurance Act 1991, s 17.

⁷⁰ Environmental Protection Act 1986, s 19.

⁷¹ Environmental Protection Act 1986, s 18.

the environment. Therefore, the only way to go forward is to realise the equal importance both have. In addition, for this there is a need for sustainable development. Since this paper is restricted to the topics of energy and environment, the only logical and legal sphere that the analysis could have gone in, is of renewable energy, which is a baton-holding topic under the aegis of sustainable development. This renewable development is the key when it comes to finding the answer and the jurisprudence on the same is rising owing to the well-recognised need of the same.

To answer the second question is to connote weight into the respective terms of 'sustainable development'. If 'sustainable' is more sought, then energy production, which is under the control of the government must be made equally liable and be put to the dock of guilt, as are other parties. On the other hand, if 'development' is considered heavier then we must consider as the cost incurred for a brighter future. The debate on the proposition and opposition of sovereign immunity can go on and on, and the only answer can be given by legislation or a court's decree.

In conclusion, I would like to say that energy, though comes in a lot of hues and has a lot of answers to give by the way of laws, laid down or carved at the end of the aforementioned discussion shall not be on the grounds of scarcity of regulating texts in the country. The answer comes from the inherent questions and reasonable answers; questions like if hydroelectricity and wind energy are provided for under the provided law, how the access to water and wind can be legally safeguarded? Quite simply the same can be done under the light of the simple notion of sustainable development.