

Analysing the Affectivity of Environmental Laws in India to the Response of Climate Change Challenges

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One fact seems to stand out that a divorce from the soil, from the good earth, is bad for the individual and the race.

Jawaharlal Nehru, *Discovery of India*.¹

Introduction

Man has continually exploited the environment from time immemorial to meet all his needs and desires, from the basic ones of food, water, shelter and clothing to fulfil his penchant for a luxurious life. In the recent past, burgeoning population coupled with modern man's craving for comfort and luxury has put an intolerable strain on the environment.² Man has constantly gathering experience as he goes on discovering, inventing, creating and advancing. A man's capability to use his surroundings, if used wisely, can bring to all people benefit of development and opportunity to enhance the quality of life and if wrongly or needlessly applied, the same power can do incalculable harm to human beings and the environment.³

While academics, media and organizations working for the environment have been trying to get the message across and advocate a more stringent lifestyle, particularly in the developed world, it is now evident that without adequate implementation of law on environment protection, it will be impossible to achieve the objective of leaving the earth for our children, at least in the same shape as we received it. Replenishment and preservation of the environment for future generations can't be realised by the efforts of few persons or organization alone. There has to be a global effort to minimize pollution and make a more judicious use of resources. Most countries of the world, including India, have formulated laws to realise this much coveted goal.⁴

Origin and Development of Environmental Laws in India

The prevalence of environmental protection movement has been fairly strong in all the developed countries. The study of environmental protection policy of India may be divided into two groups; viz. pre-Independence era and post-Independence era.

Pre-Independence Period

The concept of environment protection and conservation is not new in India. The Vedas, Puranas, Upanishads and other scripture talk about the indebtedness of man to nature and emphasize the importance of maintaining an ecological balance.⁵ The most detailed and perceptive of the *ut supra* are the provisions found in Kautilya's Arthashastra written between 321 and 300 B.C. It provides for fines for polluting damaging forests, selling trees etc. The Mahabharata warned that while it took only a few to defile and cause pollution, the whole society suffers from the various diseases thus caused. Charak's mention of *vikriti* (pollution) warned the people of the side effects of foul air and polluted water. The laws laid down by Kautilya concerning forests, include protection of forests by the State, fines for cutting trees and damaging forests, fines and punishments for causing harm to animals, establishment of forest, reserves for animals and payment of fees for hunting. Ashoka, in his fifth pillar edict prohibit the killing of certain animals and birds, the destruction of forest and the killing of other specified animals on specific days.⁶

During Mughal period, a significant contribution from the point of view of environment conservation has been the establishment of splendid gardens, fruit orchards and green parks around the emperor palaces, central and provincial headquarters, public places on the bank of rivers and in the valley and dales which they used as holiday resorts or places of retreat or temporary

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headquarters during the summer season. The famous Mughal gardens which attract every nook and corner of the country even today are thus pleasant cultural heritage of imperial Mughals.⁷ The rural communities enjoyed untrammelled use of forests and wastes in their vicinity during this period. The wastes and forest lands were treated as open access resources. The product of the forests conserved by the local people who themselves were exempted from cess. However, untrammelled use of forests and other natural resources did not mean that they could be used or misused by one and all without restraints. They were quite effectively managed with the help of a complex range of cultural features as well as the economic activities of local communities.⁸

During the initial stages of colonial rule in India, little concern was shown towards the environment and its protection. During the nineteenth century, some legislative provisions concerning the environment were formulated. The focus of these legal provisions was on forests, wildlife and water pollution.⁹ The early days of British rule in India were characterized by a total indifference to the needs of forest conservation. Yet, this regime also saw the beginning of organized forest management. During the 19th century, attempts were made to regulate water pollution, wildlife and land use by enacting laws by the British Government. These laws, however, had a narrow purpose and a limited territorial approach.¹⁰ The imperial forest department was formed in India in 1864 under the first Inspector General of Forests, Dietrich Brandis, a German. However, by this time Britain, better known as the world leader in deforestation and wildlife destroyer, had already done incalculable damage to the environment which has not been replenished till date.¹¹ By this time, the government was aware of the environmental issues and early environmental legislations bears testimony to the fact. Various Acts enacted prior to Independence are — The Hyderabad Forest Act of 1833, Shore Nuisance (Bombay and Kolaba) Act of 1853, Oriental Gas Company Act of 1857, East India Irrigation and Canals Act of 1859, Indian Penal Code of 1860, Sarai's Act of 1867, Cattle Trespass Act of 1871, Northern India Canal and Drainage Act of 1873... Madras Forest Conservation Act of 1882, Explosive Act of 1884, Wild Bird Protection Act of 1887, Fisheries Act of 1897, CrPC of 1898, Motor Vehicle Act of 1939, Mysore Forest Act of 1940 etc.¹² Enactment of Forest Act, 1865 was the first step at asserting the state monopoly rights over the forests... The Act was revised in 1878 and extended to most of territories under the British Rule. Subsequently, the first forest policy was enacted in 1894.¹³ The above said laws were made by the British for their own interests and were of limited effect.¹⁴

Post-Independence Era

Post Independence era can be broadly studied under two heads: environment policies before the Stockholm Conference and policies following the Conference.

With the dawn of Independence, the industrialization started growing rapidly and has consequently brought to the forefront the problem of urbanisation. Thus, the natural environment has been affected adversely.¹⁵ After Independence, one of the first government publications pertaining to forests was intended to publicise the contributions of India's forests towards war efforts. Factories Act, 1948, was passed. The River Board Act, 1956, made provisions for the development of inter-state rivers and river-valleys and prevention of water pollution. The Five-Year Plans began to incorporate environmental considerations into this format.¹⁶ The Indian Government became conscious of the dangers of environmental pollution as early as 1969. The environmental problems issue is on our national agenda of planning and policy since 1969, three years prior to Stockholm Conference.¹⁷ All this has prompted the independent Indian Government to provide relevant legislation. Prominent amongst these are: Industries (Development and Regulation) Act, 1951, Inflammables Substance Act, 1952, Mines Act, 1952, Merchant Shipping Act, 1958, Atomic Energy Act, 1962 and Insecticides Act, 1968.¹⁸

The global interests and concerns about the environmental pollution sharpened because of the First Conference on Human Environment convened by the 24th General Assembly of United Nations Organisations at Stockholm in June 1972. India was a signatory to the Stockholm declaration and owed a duty towards the world to protect and improve the environment by framing the long-term action plan and implementing them.¹⁹ The Stockholm Conference, 1972, is to be credited for accelerating the pace of environmental legislation in India. It recommended national and international level cooperation in identification and appraisal of environment damages and problems of global significance.²⁰ A significant fallout of this conference was the enactment of new Indian laws, chiefly water (Prevention and Control of Pollution) Act of 1974, Air (Prevention and Control of Pollution) Act of 1981, Factories Amendment Act of 1987.²¹ In the year 1972, the Wildlife Protection Act was enacted by the Parliament. An important legislation, entitled the Forest Conservation Act of 1980, was passed by the Parliament.²² The underlying structure of governance envisaged by the Forest Conservation Act, the Air Act and Water Pollution Act was different.²³ The Environment Protection Act of 1986, which came out of the shadow of the Bhopal gas tragedy, was a radical legislation that corrected the infirmities of the previous Water and Air

Acts and also brought under its rubric all elements of the environment for comprehensive protection.²⁴ In the year 1988, the next landmark initiative was taken up in the shape of the National Forest Policy, which superseded the Forest Policy of 1954.²⁵ The other matters which has become significant in recent times relates to biotechnology and hazardous wastes emanating from trans-boundary sources.²⁶ In India, there are over two hundred central and state legislations that have some bearing on the issue of environmental protection.²⁷

The story of the evolution of India's Environmental Policy and legislation serves to bring out the fact that the implementation of decentralization measures has been patchy. Nevertheless, India's policy framework on environmental protection provides enough scope for promoting diverse and local based approaches to global environmental issues.²⁸

Environment and the Constitutional Law of India

At the early Constitutional history of India there was no direct and specific provision with regard to environmental pollution. There was, however, an indirect reference to the subject of the environment in Article 47 of the Constitution which reads as:

The State shall regard the raising of the level of nutrition and standard of living of its people and improvement of public health as among its primarily duties.²⁹

There is provision of "public health and sanitation" in entry 6 of the State list. The Constitution (Forty-second Amendment) Act, 1976 has introduced several far reaching changes in the fundamental law of the country by inserting and emitting provisions in its different articles to make it adaptable to changing situations. In the light of Stockholm Declaration on Human Environment, 1972, India added new provisions.³⁰

The Constitution (Forty-Second) Amendment Act, 1976, added a new Part IV-A dealing with "Fundamental Duties" in the Constitution of India... This Article specifically deals with the fundamental duty with respect to environment. It provides:

It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures.³¹

Article 51(j) further provides:

It shall be the duty of the every citizen of India to strive towards excellence in all spheres of individual and collective activity, so that the nation constantly rise to higher levels of endeavour and achievements.³²

The Constitution (42nd Amendment) Act, 1976 again

added a new directive principle dealing specifically with protection and improvement of environment. It provides:

The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.³³

Article 47 of the Constitution is one of the directive principles of State policy and it provides that the State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties.³⁴ The improvement of public health will also include the protection and improvement of environment without which public health cannot be assured.³⁵

Part XI of the Constitution governs the division of legislative and administrative authority between the centre and the states. Article 246 divides the subject areas for legislation into three lists, viz. Union list, State list and Concurrent list.³⁶ Generally speaking, Article 246 of the Constitution of India makes Parliamentary legislation on matters in the concurrent list paramount. Parliament has also the power to make laws with respect to any matter for any part of the territory of India not included in a State, notwithstanding that such matter is enumerated in a State List [Article 246]. Residuary powers of legislation are also vested in Parliament.³⁷

Principle 1 of the Stockholm Declaration finds reflection in Articles 14, 19 and 21 of the Constitution of India³⁸ dealing with the right to equality, freedom of speech and expression and right to life and personal liberty respectively.³⁹

It may be appreciated that Article 21 of the Constitution, which occurs in Part III entitled "Fundamental Rights", guarantees to all persons the right to life and personal liberty by prohibiting their deprivation except according to procedure established by law.⁴⁰ The rights to life and personal liberty embodied in Article 21 have been transformed into positive rights by an active judicial interpretation.⁴¹ With the new content given to the right to life in Article 21 of the Constitution, it is impossible and inappropriate to read the right to a hygienic environment into that right, for it will be impossible to live with human dignity without a clean and healthy environment.⁴² The induction to a right to a healthy environment into the right to life would in fact transform the non-justiciable, imperfect constitutional duty imposed on the state under Article 48A into a justiciable, perfect duty obligating the state to take affirmative steps not only to protect the natural environment from possible pollution but also to improve it.⁴³ This is because the right to life with its expansive reach has become an effective positive right to compel the state to take affirmative steps to protect and improve the environment.⁴⁴ This affirmative duty is additional to,

and independent of, the state's imperfect, positive duty envisaged under Article 48A of the Constitution.⁴⁵

Article 21 is the heart of fundamental rights and has received expanded meaning from time to time and there is no justification as why right to live in a healthy environment, can't be interpreted in it. For healthy existence and preservation of essential ingredients of life, stable ecological balance is required.⁴⁶ Article 21 guarantees a fundamental right to life – a life of dignity, to be lived in a proper environment, free of danger of disease and infection.⁴⁷ It is an established fact that there exists a close link between life and environment. The talk of fundamental rights and, in particular, right to life would become meaningless if there is no healthy environment.⁴⁸ The judicial grammar of interpretation has made "right to live in a healthy environment" as the *sanctum sanctorum* of Human Rights.⁴⁹

The judicial grammar of interpretation has further broadened the scope and ambit of Article 21 and now "right to life" includes the "right to livelihood". This broad interpretation of right to life is very helpful in checking the governmental action which has an environmental impact that threatens the poor people of their livelihood by dislocating them from the places of living or otherwise depriving them of their livelihood. In the last few years, people have been protesting against the construction of large dams as they generally displace thousands of people who are often tribal and forest dwellers and thus deprive them of their livelihood.⁵⁰

In *Olga Tellis v. Bombay Municipal Corporation*,⁵¹ the Court held:

If the right to livelihood is not treated as a part of the constitutional right to life, the easiest way of depriving the person of his right to life would be to deprive him of his means to livelihood to the point of abrogation. Such deprivation would not only denude the life of its effective content and meaningfulness but it would make life impossible to live.⁵²

The Court further held:

The State may not by affirmative action, be compelled to provide adequate means of livelihood or work to the citizens. But, any person, who is deprived of his right to livelihood except according to just and fair procedure established by law, can challenge the deprivation as offending the right to life conferred by Article 21.⁵³

Likewise, Article 14 and Article 19 dealing with equality and freedom of speech and expression plays an important role in safeguarding the environmental interest of people.

Public Interest Litigation and Environment Protection

Access to justice through 'class action', 'public interest

litigation' and representation proceedings is the present Constitutional jurisprudence, Krishna Iyer J. declared.⁵⁴ In the recent past, public interest litigation has played a unique role in the fields like – protection of fundamental rights, human rights... environmental protection etc.⁵⁵ In a public interest case, the subject-matter of the litigation is typically a grievance against the violation of basic human rights of the poor and the helpless or about the content or conduct of government policy. Most environmental actions in India fall within this class.⁵⁶ PIL has been progressively used to invoke the original jurisdiction of the Supreme Court and the High Court under Articles 32 and 226 of the Constitution in providing protection for the environment.⁵⁷ New vistas and dimensions have been given to the substantive rights to health and clean and unpolluted environment by the Courts, by opening a path of processual justice, without enslaving themselves to procedural compulsions.⁵⁸ In *Tarun Bhagat v. Union of India*,⁵⁹ the Supreme Court, while upholding the contention of a social action group challenging the legality of granting a mining licence in the protected area of reserved forest, observed:

This litigation should not be treated as the usual adversarial litigation. Petitioners are acting in aid of a purpose high on national agenda. Petitioners concern for the environment, ecology and the wild life should be shared by the government.⁶⁰

The observation of the Court is important as it highlights the rationale of PIL in environmental issues. It is the duty of the State and the citizen to protect the environment – a duty imposed by the Directive Principles (Article 48A) and Fundamental Duties (Article 51A(g)), introduced by the Forty-Second Amendment of the Constitution.⁶¹ Any person who raises an environmental issue, whether individual, group or institution, is equally concerned with the problem. Such litigation can't be considered as an adversarial confrontation with the state.⁶²

Climate Change Laws and Policy Framework in India

India specifically has no legislation in relation to climate change. However, the initiative taken by India for combating climate change are worth noting.

India being vulnerable to adverse effects of climate change is conscious of its global responsibilities towards climate change as also the needs to minimize adverse effects of climate change on its large population.⁶³ In recent years, India's energy consumption has been increasing at one of the fastest rates in the world owing to population growth and economic development. India ranks sixth in the world in terms of energy and demand. Its economy is projected to grow 7 to 8 per cent over the next two decades, spurring a substantial increase in demand for

oil to fuel land, sea and air transportation.⁶⁴ Even though India is not required to contain its GHG emissions, as a signatory to the UNFCCC and a country which has acceded to Kyoto Protocol, India has been very active in proposing Clean Development Mechanism (CDM) projects...Indian government has been actively following a number of initiatives that could significantly reduce the greenhouse gas intensity of the economy.⁶⁵ To be specific, they include energy efficiency in all sectors, emphasis on mass transport, active policy on renewable energy including bio-fuels and fuel plantations, accelerated development of nuclear and hydro-electricity, technology mission for clean coal technologies, focussed research and development on many climate friendly technologies, energy efficiency rating of electrical instruments, green rating of buildings.⁶⁶

While engaging constructively with the international community on the issue India has pursued a strong domestic agenda for addressing climate change.⁶⁷ India has extensive programmes on several aspects of global environmental change.⁶⁸ These include: greenhouse molecule monitoring, air-sea interactions, effect of increased UV-13 and climatic changes on ecosystems... Mesosphere-stratosphere-troposphere radar (MST Radar) is being installed near Tirupati that will continuously monitor the state of atmosphere from near the ground to about 90 km (with a gap of 25 to 60 km).⁶⁹ The Indian Middle Atmosphere Programme has already provided substantial information on the middle atmosphere over India. Development of CFC (chloroforocarbon) substitutes are among the extensive programmes India is contemplating to take up to slow down global climate change.⁷⁰ The National Environmental Engineering Research Institute (NEERI), Nagpur has conducted various monitoring programmes. However, the monitoring facilities are inadequate in India.⁷¹ India recognizes that a strategy for addressing climate change has to be based on the strategy for sustainable development.⁷²

India's Obligations under Climate Change Convention and Kyoto Protocol

India signed the UNFCCC on 10 June 1992 and ratified the same on 1st November 1993.⁷³ India being a non-Annex-I and Group-III country under the present international climate change framework, there is no obligation upon India for the purpose of reducing the emission.⁷⁴ The Ministry of Environment and Forests, acts as a Nodal Agency for the purpose of climate change issues in India. India's approach to the negotiations is fully anchored in the UNFCCC and the Kyoto Protocol.⁷⁵ As a part of its international obligations under the UNFCCC, India prepares periodically the National Communication

(NATCOM) that gives an inventory of the greenhouse gases (GHG) emissions in India, and assesses the vulnerability and impacts and make appropriate recommendations regarding social, economic and technological measures to address climate change.⁷⁶ Research teams collaborated to prepare India's first NATCOM and presented in 2004 and NATCOM-II which put together an even more detailed assessment of national GHG inventories and of the vulnerabilities faced by the key sectors in India presented to the UNFCCC in 2011.⁷⁷

The Government of India has set up an elaborate institutional mechanism to consider and address issues relating to climate change.⁷⁸ A Council chaired by Prime Minister called Prime Minister's Council on Climate Change was constituted in June 2007 to coordinate national action for assessment, adaptation and mitigation of climate change.⁷⁹ The Council provides the overall guidance to climate change related actions taken by various Ministries in the Government and other agencies.⁸⁰ Ministry of Environment and Forests is the national focal point for UNFCCC and coordinates various activities relating to the NAPCC and other climate change related policies and actions.⁸¹

Climate change presents many challenges at legal level. At present, India does not have a separate statute on climate change.⁸² There are certain legal, regulatory and policy frameworks which can be used in the mitigation efforts of climate change.⁸³ The Energy Conservation Act, 2001, enacted to promote the efficient use of energy and the National Tariff Policy, 2006, mandating compulsory purchase of certain percentage of renewable energy are important tools in the mitigation efforts.⁸⁴ National Action Plan on Climate Change is the major policy document that gives direction to mitigation and adaptation efforts in India.⁸⁵

The present legislative and regulatory framework having implications upon the climate change would consist of Environment (Protection) Act, 1986; the Air (Prevention and Control of Pollution) Act, 1981; the Indian Forest Act, 1927; the Forest (Conservation) Act, 1980; and the legislation related to energy, which consists of Energy Conservation Act, 2001.⁸⁶

Environment Legislations and Policy Measures

The Air (Prevention and Control of Pollution) Act, 1981, lays down the institutional and regulatory framework which would restrict the emission of gases from automobiles and that of industries.⁸⁷ This restriction of emission enunciated under Sections 20 and 22 of the Act would have an impact on the greenhouse gas emission reduction as transportations or vehicular pollutions and industrial emissions are two important sectors that have

substantial contribution in increasing the concentration of greenhouse gases.⁸⁸ The Motor Vehicles Act, 1988⁸⁹ can also play an important role in reduction of emissions from automobiles as central government is provided with the power to make rules for regulating emissions.⁹⁰ Under the Act, the Central government may make rules regulating the construction, equipment and maintenance of motor vehicles and trailers with respect to standards of emission of air pollutions.⁹¹ The Environment Protection Act, 1986, empowers the central government to take measures to protect and improve the environment. Such measures also include “laying down standards for emission or discharge of environmental pollutants from various sources whatsoever...”⁹²

The National Environmental Policy, 2006, clearly acknowledges that the anthropogenic climate change, significant responsibility for which clearly does not lie with India or other developing countries, may, on the other hand, have likely adverse impacts on India’s precipitation patterns, ecosystems, agricultural potential, forests, water resources, coastal and marine resources, besides increase in range of several disease vectors.⁹³ Accordingly, the National Environment Policy mentions the following essential elements of India’s response to climate change:

- (i) Adherence to the principle of common but differentiated responsibilities and respective capabilities of different countries in respect of both mitigation of GHGs, and adaptation measures.⁹⁴
- (ii) Reliance on multilateral approaches as opposed to bilateral or unilateral measures.⁹⁵
- (iii) Ensuring equal per capita entitlements of global environmental resources to all countries.⁹⁶
- (iv) Over-riding priority of the right to development.⁹⁷
- (v) Identifying key vulnerabilities of India to climate change, in particular impacts on water resources, forests, coastal areas, agriculture and health.⁹⁸
- (vi) Assessing the need for adaptation for future climate change, and the scope of incorporation of these in relevant programmes, including watershed management, coastal zone planning and regulation, forestry management, agricultural technologies and practices, and health programmes.⁹⁹
- (vii) Encouraging Indian industry to participate in the Clean Development Mechanism (CDM) through capacity building for identifying and preparing CDM projects, including the financial sector.¹⁰⁰
- (viii) Participating in voluntary partnerships with other countries both developed and developing, to address the challenge of sustainable development

and climate change, consistent with the provisions of the UNFCCC.¹⁰¹

The Indian Forest Act, 1927, the Forest (Conservation) Act, 1980 which contains provisions for the protection of existing forest areas and the National Forest Policy, 1988, which aims at afforestation and coverage of the one-third of the land area of India under forest or tree cover, are important in the context of the Reducing Emissions from Deforestation and forest Degradation (REDD) and REDD plus approach emphasising on conservation, sustainable management of forests, increase in forest cover.¹⁰²

Energy Related Legislations and Policy Measures

The Energy Conservation Act, 2001, is a significant legislation in India with respect to energy sector and has influenced climate change also. The Act provides a comprehensive legislation for the efficient use of energy and its conservation.¹⁰³ In addition to these, many concepts in Indian environmental jurisprudence can be used to address the concerns raised by climate change.¹⁰⁴ Precautionary Principle is the bedrock on which the UNFCCC and Kyoto Protocol rests.¹⁰⁵ A plethora of Indian judgements has categorically stated that Precautionary Principle is a part of Indian Law.¹⁰⁶ In the specific Indian context, the Precautionary Principle imposes additional responsibilities on the governments. The environmental measures carried out must anticipate, prevent and attack the causes of environmental degradation.¹⁰⁷

Polluter Pays Principle is another major rule which can play a central role in an emerging climate change jurisprudence in India. The fact that Article 21 of the Indian Constitution which guarantees right to life has been used as a legal foundation of these principles means that any legal or executive measure can’t circumvent them.¹⁰⁸

In 2008, India adopted a National Action Plan on Climate Change (NAPCC) with objective of shifting to a less-carbon intensive development pattern and renewable sources of energy and thus to reach high energy efficiency.¹⁰⁹ Eight National missions are viz., National Solar Mission, National Mission on Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Ecosystem, National Mission for the Green India, National Mission for Sustainable Agriculture and National Mission for Strategic Knowledge for Climate Change.¹¹⁰ Ministry of Environment & Forests coordinates the implementation of the Action Plan and other climate change related actions in India.¹¹¹

Conclusion

The laws to deal with the various environmental problems are sufficient in India but there is lack of proper implementation. Though, there is no specific legislation in India to deal with climate change problem but this problem can be addressed through other environmental legislation in existence in India at present. India being a developing country is not legally bound to reduce its greenhouse gas reduction under the climate change regime.

In India, there have been only limited regulatory initiatives implemented to address climate change and emphasis has been on voluntary, ad hoc programs.¹¹² In the absence of comprehensive legal approach to restrict India's greenhouse gas emissions, the existing local environmental protection regulations, such as Environment Protection Act, 1986, Energy Conservation Act, 2001, Air Act have the potential to play a significant role through the evaluation of major projects, minimisation of greenhouse gas emissions and avoidance of environmental harm.¹¹³ However, there has been a significant dichotomy between the written law and the law as applied in practice which generally ignores the environmental implications of large scale emissions.¹¹⁴ In the absence of comprehensive legislation regarding mitigating greenhouse gas emissions in India, in conjunction with the general lack of progress by the global community, means that there is a need for a new regulatory approach both internationally as well as within India to promote adaptation to the impacts of climate change.¹¹⁵

Notes

1. Cited in A. Damodaran, *India, Climate Change and the Global Commons* 153 (2011).
2. Malika Ramchandran, "Environmental Law in India." Nomita Agarwal (ed.) *Social Auditing of Environmental Laws in India* 136-143 at 136 (2003).
3. Proclamation made by the United Nations Conference on Human Environment, Stockholm, (June 5-16,1972).
4. *Supra* note 2 at 137.
5. *Supra* note 2 at 137-138.
6. *Supra* note 2 at 138.
7. *Ibid.*
8. Chattarpati Singh, *Common Property and Common Poverty – India's Forests, Forest Dwellers and the Law*, 10 (1986).
9. *Supra* note 2 at 138.
10. *Supra* note 5 at 7.
11. *Supra* note 8 at 146.
12. *Id.*, at 147.
13. *Supra* note 14.
14. *Supra* note 5 at 9.
15. *Ibid.*
16. *Supra* note 2 at 140.
17. *Supra* note 5 at 9.
18. *Supra* note 8 at 147-148.
19. *Supra* note 5 at 10.
20. *Supra* note 8 at 148.
21. *Supra* note 2 at 149.
22. The objective of legislation was to prevent diversion of forests land in India for non-forestry purposes.
23. *Supra* note 1 at 200.
24. *Ibid.*
25. *Id.*, at 102.
26. *Id.*, at 204.
27. *Supra* note 5 at 10.
28. *Supra* note 1 at 205.
29. Article 47 of the Constitution of India.
30. M.A.A Baig, *Environment Law and Justice*, 16 (1996).
31. Article 51 (a) (g) of The Constitution of India.
32. Paramjit Singh Jaswal and Nishtha Jaswal, *Environmental Law Environment Protection Sustainable Development and the Law*, 47 (2011).
33. Article 47 of the Constitution of India.
34. *Supra* note 38 at 48.
35. *Ibid.*
36. N.C. Gupta, "Emergence of Constitutional Provisions and Legal Framework for Environmental Management in India" in Nomita Agarwal (ed.), *Social Auditing of Environmental Laws in India*, 28-53 at 29 (2003).
37. *Supra* note 5 at 21.
38. Principle 1 of the Stockholm Declaration provided that man has a fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well-being, and bears a solemn responsibility to protect and improve the environment for present and future generations.
39. *Supra* note 37 at 51.
40. B. Errabbi, "Environmental Protection: Constitutional Imperatives – Indian Experience." *Law Science and Environment*, 186-191 at 189.
41. *Ibid.*
42. *Id.*, at 190.
43. *Ibid.*
44. *Ibid.*
45. *Ibid.*
46. *Supra* note 38 at 52.
47. *Ibid.*
48. *Ibid.*
49. *Ibid.*
50. For example, one of the arguments against the Tehri Dam Project was that the Dam will submerge Tehri town and 23 villages in the vicinity and 72 other villages will be partially submerged. It was expected that about 85,600 persons will be displaced because of the dam. *Id.*, at 61.
51. AIR 1986 SC 180.
52. Cited in Jaswal, n. 37 at 62.
53. *Ibid.*
54. *Supra* note 36 at 18.
55. *Ibid.*
56. Ashok Kumar, *Environmental Law* 28 (1996).

57. Geetanjali Nain Gill, "Public Interest Litigation and Environment Protection." Nomita Aggarwal (ed.) *Social Auditing of Environmental Laws in India* 64-73 at 65 (2003).
58. *Ibid.*
59. AIR 1992 SC 514.
60. Cited in Geetanjali, n. 58 at 65.
61. *Ibid.*
62. *Id.*, at 66.
63. Vijay Joshi and Urjit R. Patel, "India and Climate-Change Mitigation." Dieter Helm and Cameron Hepburn (eds.), *The Economics and Politics of Climate Change*, 167-193 at 191 (2009).
64. "Report on Energy Security", *Geography and You*, Vol. 9, No. 57, 54-58 (November-December, 2009).
65. Sanjib Pohit, "Energy, Emissions and India", *Geography and You* Vol. 9, Issue 57, 8-11 at 9 (November-December 2009).
66. *Ibid.*
67. R.R. Rashmi & S. Satapathy, "Facing the Challenge", *Yojana*, 5-10 at 8 (April, 2010).
68. Gurdip Singh, *Global Environmental Change and International Law*, 123 91991).
69. *Ibid.*
70. *Ibid.*
71. *Id.*, at 112.
72. *Supra* note 73 at 8.
73. India and International Climate Negotiations. Available at: www.indiaclimateportal.org/National-Climate-Change-Action (accessed on August 14, 2012).
74. *Ibid.*
75. *Supra* note 80 at 7.
76. Preparation of NATCOM is an exercise based on an extensive network of research and scientific institutions in India and draws upon expertise and excellence from different institutions.
77. *Supra* note 73 at 7.
78. *Ibid.*
79. *Ibid.*
80. *Ibid.*
81. *Ibid.*
82. Shiju MV, "Indian Environmental Law and Climate Change", *Yojana*, 18-20 at 19 (April, 2010).
83. *Ibid.*
84. *Ibid.*
85. *Ibid.*
86. Bharat Desai, *Strengthening Legal and Policy Frameworks for Addressing Climate Change in Asia: India*. Available at: www.unep.org/dec/PDF/casestudies/CCIIIndidraft.pdf Sonali (accessed on August 14, 2012).
87. Section 20 and 22 of The Air (Prevention and Control of Pollution) Act, 1981.
88. *Supra* note 93.
89. Section 110 of Motor Vehicles Act, 1988.
90. *Supra* note 93.
91. See section 110(1)(m) of the Motor Vehicle Act, 1988.
92. See section 3(2) (iv).
93. National Environment Policy, 2006, Government of India Ministry of Environment and Forests 42 (May 18, 2006).
94. *Id.*, at 43.
95. *Ibid.*
96. *Ibid.*
97. *Ibid.*
98. *Ibid.*
99. *Ibid.*
100. *Ibid.*
101. *Ibid.*
102. *Ibid.*
103. Energy Conservation Act, Section 3.
104. *Supra* note 89 at 19.
105. *Ibid.*
106. *Ibid.*
107. *Ibid.*
108. *Ibid.*
109. Praful Bidwai, *The Politics of Climate Change and the Global Crisis – Mortgaging Our Future* 129 (2012).
110. *Supra* note 89 at 9.
111. *Ibid.*
112. *Supra* note 116 at 129.
113. *Ibid.*
114. *Ibid.*
115. *Ibid.*