

ENVIRONMENTAL DEGRADATION & TECHNOLOGICAL DEVELOPMENTS: BALANCING THE COMPETING INTERESTS IN SOCIO- LEGAL CONUNDRUM

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This paper endeavours to explore the technological developments in its present visage and their overall impact on environmental degradation, as the environment plays the crucial role in the physical, mental and social well-being. While technology can be a powerful force to improve our standard of living, it comes at a cost. New technological goods are often burdensome to the environment. Industrialization coupled with technological advancement has continued to affect the environment in a negative way. This damage may come from acquiring the resources to produce new technology, or from toxic by-products of technological production. It can consist of environmentally harmful waste produced by the technology itself, or the castoff remains of obsolete technology. The Indian information technology (IT) industry has been one of the major drivers of change in the economy in the last decade and has contributed significantly to the digital revolution being experienced by the world. New electronic gadgets and appliances have infiltrated every aspect of our daily lives, providing our society with more comfort, health and security and with easy information acquisition and exchange. But with this boon we are bound to face some bane also. India has generated about 0.2 million tons of E-waste in 2006 and in 2010 it is about 0.4 million tons and at present the quantum is increasing rapidly. Studies so far reveal that the total e-waste generation in India from both households and corporate will reach 0.5 to 0.6 million tons by 2013–2014. This data is the tip of the iceberg as there are some other factors also which contribute to worsen the situation which have been intellectually dissected and discussed in the paper. It is the high time to cogitate, discuss and debate over the issue to find out the solution of the problem within the socio-legal parameters, so as to save the succeeding generations from scourge of environmental degradation.

INTRODUCTION

Advances in the field of science and technology brought about industrial revolution in the 18th Century which marked a new era in human civilization. In the 20th Century, the information and Communication revolution has brought enormous changes in the way we organize our lives, our economies, industries and institutions. These spectacular

developments in modern times have undoubtedly enhanced the quality of our lives. At the same time, these have led to manifold problems including the problem of massive amount of hazardous waste and other wastes generated from electric products. These hazardous and other wastes pose a great threat to the human health and environment. The issue of proper management of wastes, therefore, is critical to the protection of livelihood, health and environment. It constitutes a serious challenge to the modern societies and requires coordinated efforts to address it for achieving sustainable development.

According to the Basel Convention, wastes are substances or objects, which are disposed of or are intended to be disposed of, or are required to be disposed of by the provisions of national laws¹. Additionally, wastes are such items which people are required to discard, for example by law because of their hazardous properties. Our daily activities give rise to a large variety of different wastes arising from different sources. Thus, municipal waste is waste generated by households and consists of paper, organic waste, metals, etc. The wastes generated by production processes, households and commercial activities are hazardous waste. Biomedical waste is waste generated by hospitals and other health providers and consists of discarded drugs, waste sharps, microbiology and biotechnology waste, human anatomical waste, animal waste, etc. Radioactive waste is any material that contains a concentration of radionuclide's greater than those deemed safe by national authorities, and for which, no use is foreseen. Other sources of waste include end-of-life vehicles, packaging waste, tyres, agricultural waste, etc². These waste substances are in the long run hazardous in nature as they are ignitable, corrosive, reactive, toxic, explosive, poisonous or infectious. Hence, they pose substantial or potential threat to public health and the environment.

A country's environmental problems vary with its stage of development, structure of its economy, production technologies in use and its environmental policies. While some problems may be associated with the lack of economic development (e.g. inadequate sanitation and clean drinking water), others are exacerbated by growth of economic activity (e.g. air and water pollution). Poverty presents special problems for a densely populated country with limited resources.

WHAT IS TECHNOLOGY AND HOW TECHNOLOGY ADVANCES

Technology is the making, modification, usage and knowledge of tools, machines, techniques, crafts, systems and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal, handle an applied input/output relation or perform a specific function. It can also refer to the collection of such tools, including machinery, modification, arrangement and producers. Advancement in technology also brought the finer things in life, making it necessary for man to accelerate

¹ Text of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, UNEP, Geneva, Switzerland, p.6, <http://www.basel.int/text/>

²Performance Audit on "Management of Wastes in India", Report No. PA 14 of 2008, www.cag.gov.in/html/reports/civil/2008_PA14_SD.../chap_1.pdf

his economic growth. Technology was used to speed up production and manufacture of goods, to provide better transport and delivery as well as make the methods of communication not only faster but also, far reaching. Trade and commerce flourished at faster rates due to technological advancements and brought about globalization. As trade and commerce grew, the more it heightened the impact of technology on natural environment wherein air, land and water reached certain degrees of pollution, degradation and contamination

E-WASTE

Like hazardous waste, the problem of e-waste has become an immediate and long term concern as its unregulated accumulation and recycling can lead to major environmental problems endangering human health. The information technology has revolutionized the way we live, work and communicates bringing countless benefits and wealth to all its users. The creation of innovative and new technologies and the globalization of the economy have made a whole range of products available and affordable to the people changing their lifestyles significantly. New electronic products have become an integral part of our daily lives providing us with more comfort, security, easy and faster acquisition and exchange of information. But on the other hand, it has also led to unrestrained resource consumption and an alarming waste generation. Both developed countries and developing countries like India face the problem of e-waste management. The rapid growth of technology, up gradation of technical innovations and a high rate of obsolescence in the electronics industry have led to one of the fastest growing waste streams in the world which consist of end of life electrical and electronic equipment products. It comprises a whole range of electrical and electronic items such as refrigerators, washing machines, computers and printers, televisions, mobiles, i-pods, etc., many of which contain toxic materials. Many of the trends in consumption and production processes are unsustainable and pose serious challenge to environment and human health. Optimal and efficient use of natural resources, minimization of waste, development of cleaner products and environmentally sustainable recycling and disposal of waste are some of the issues which need to be addressed by all concerned while ensuring the economic growth and enhancing the quality of life.

E-WASTE GENERATION IN INDIA

All over the world, the quantity of electrical and electronic waste generated each year, especially computers and televisions, has assumed alarming proportions. In 2006, the International Association of Electronics Recyclers (IAER)³ projected that 3 billion electronic and electrical appliances would become WEEE or e-waste by 2010. That would tantamount to an average e-waste generation rate of 400 million units a year till 2010.

³ The IAER was acquired by the Institute of Scrap Recycling Industries, Inc. (ISRI) in January 2009. ISRI, based in Washington D.C., USA, is the voice of the scrap recycling industry, an association of companies that process, broker and consume scrap commodities

Globally, about 20-50 MT (million tonnes) of e-wastes are disposed-of each year, which accounts for 5% of all municipal solid waste.⁴

Although no definite official data exist on how much waste is generated in India or how much is disposed of, there are estimations based on independent studies conducted by the NGOs or government agencies. According to the Comptroller and Auditor- General's (CAG) report, over 7.2 MT of industrial hazardous waste, 4lakh tonnes of electronic waste, 1.5 MT of plastic waste, 1.7 MT of medical waste, 48 MT of municipal waste are generated in the country annually.⁵ In 2005, the Central Pollution Control Board (CPCB) estimated India's e-waste at 1.47lakh tonnes or 0.573 MT per day.⁶ A study released by the Electronics Industry Association of India (ELCINA) at the electronics industry expo – "Componex Nepcon 2009" had estimated the total e-waste generation in India at a whopping 4.34lakh tonnes by end 2009.⁷ The CPCB has estimated that it will exceed the 8lakh tonnes or 0.8 MT mark by 2012.⁸ There are 10 States that contribute to 70 per cent of the total e-waste generated in the country, while 65 cities generate more than 60 per cent of the total e-waste in India. Among the 10 largest e-waste generating States, Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Karnataka, Gujarat, Madhya Pradesh and Punjab. Among the top ten cities generating e-waste, Mumbai ranks first followed by Delhi, Bangalore, Chennai, Kolkata, Ahmadabad, Hyderabad, Pune, Saraland Nagpur.⁹ The main sources of electronic waste in India are the government, public and private (industrial) sectors, which account for almost 70 per cent of total waste generation. The contribution of individual households is relatively small at about 15 per cent; the rest being contributed by manufacturers. Though individual households are not large contributors to waste generated by computers, they consume large quantities of consumer durables and are, therefore, potential creators of waste.¹⁰ An Indian market Research Bureau (IMRB) survey of 'E-waste generation at Source' in 2009 found that out of the total e-waste volume in India, televisions and desktops including servers comprised 68 per cent and 27 per cent respectively. Imports and mobile phones comprised of 2 per cent and 1 per cent respectively. As a large-scale organised e-waste recycling facility, the Attero Recycling Plant in Roorkee opened in January 2010. Despite 23units currently registered with the Government of India, Ministry

⁴ UNEP Press Release, 'Basel Conference Addresses Electronic Wastes Challenge', 27 November 2006 <<http://www.unep.org/>>

⁵ Ravi Agarwal, 'A Policy? Rubbish', *The Hindustan Times*, 4 May 2010

⁶ Lok Sabha Unstarred Question no.650, dt. 28.07.2010. 2007, <<http://www.toxicslink.org>>

⁷ Sandeep Joshi, 'Growing e-waste is causing concern', *The Hindu*, 28 February 2009.

⁸ Moushumi Basu, 'New e-waste management plan lucrative for states', *The Pioneer*, New Delhi, 18 May 2010.

⁹ 'Disposal of e-waste', Rajya Sabha Unstarred Question no. 1887, dt. 07.12. 2009. Also see, Sanjay Jog, 'Ten states contribute 70% of e-waste generated in India', *The Financial Express*, 13 March 2008.

¹⁰ Satish Sinha, 'Downside of the Digital Revolution', *Toxics Link*, 28 December 2007, <http://www.toxicslink.org>

of Environment and Forests/ Central Pollution Control Board, as e-waste recyclers/reprocesses, having environmentally sound management facilities, the entire recycling process more or less still exists in the unorganised sector. The Cobalt-60 radiation tragedy at Mayapuri in Delhi in which one person lost his life and six persons were admitted to hospital served as a wakeup call drawing attention to the mounting quantity of hazardous waste including e-waste in the country while revealing systemic problems on the issue of waste disposal.¹¹ The Ministry of Environment and Forests (MoEF) has notified the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 for effective management of hazardous wastes, including e-waste in the country. But these rules do not apply to the radioactive wastes such as Cobalt – 60 which are covered under the Atomic Energy Act, 1962.¹²

ELECTRONIC WASTE IN THE GLOBAL CONTEXT

As the fastest growing component of municipal waste across the world, it is estimated that more than 50 MT of e-waste is generated globally every year. In other words, these would fill enough containers on a train to go round the world once.¹³ However, since the markets in the West have matured, it is expected to account for only 2 per cent of the total solid waste generated in developed countries by 2010. Therefore, with increasing consumerism and an anticipated rise in the sales of electronic products in the countries experiencing rapid economic and industrial growth, the higher percentage of e-waste in municipal solid waste is going to be an issue of serious concern. A report of the United Nations predicted that by 2020, e-waste from old computers would jump by 400 per cent on 2007 levels in China and by 500 per cent in India. Additionally, e-waste from discarded mobile phones would be about seven times higher than 2007 levels and, in India, 18 times higher by 2020.¹⁴ Such predictions highlight the urgent need to address the problem of e-waste in developing countries like India where the collection and management of e-waste and the recycling process is yet to be properly regulated. According to the UN Under-Secretary General and Executive Director of the United Nations Environment Programme (UNEP), Achim Steiner, China, India, Brazil, Mexico and others would face rising environmental damage and health problems if e-waste recycling is left to the vagaries of the informal sector. China already produces about 2.3 million tonnes of e-waste domestically, second only to the U.S. with about three million tonnes. The EU and the U.S. would account for maximum-waste

¹¹ 'Mayapuri: Disaster protocol not clear, says health minister', *The Times of India*, New Delhi, 04 May 2010

¹² 17 Comments and Suggestions made by the Ministry of Environment and Forests, Government of India on the draft backgrounder titled 'E-waste in India' prepared by the Research Unit of Rajya Sabha Secretariat. O.M. No. 23-4/2011-HSMD, dated 19 April, 2011.

¹³ Schwarzer S., A.D. Bono et al, 'E-waste, the hidden side of IT equipment's manufacturing and use', *Environment Alert Bulletin* (UNEP Early Warning on Emerging Environmental Threats), No. 5, 2005.

¹⁴ Tom Young, 'E-waste a growing problem for China and India', 22 February 2010, <<http://www.computing.co.uk>>

generation during this current decade. In countries like India and China, annual generation per capita is less than 1kg.¹⁵In Europe, e-waste contributes up to 6 million tonnes of solid waste per annum. The e-waste generation in the EU is expected to grow at a rate of 3 per cent to 5 per cent per year. In the past, e-waste had increased by 16 per cent to 28 per cent every five years which is three times faster than average annual municipal solid waste generation. In the U.S., e-waste accounts for 1 to 3 per cent of the total municipal waste generation. As per the United States Environmental Protection Agency (USEPA), it generated 2.6 MT of e-waste in 2005, which accounted for 1.4 per cent of total wastes. Electronic waste is generated by three major sectors in the U.S.:

Individuals and small businesses;

- Large businesses, institutions and governments; and
- Original equipment manufacturers (OEMs)

INTERNATIONAL CONVENTIONS AND TREATIES

The Indian constitution is amongst the few in the world that contains specific provisions on environment protection. The chapter of directive principles of state policy and fundamental duties are explicitly enunciated the nation commitment to protect and improve the environment. It was the first time when responsibility of protection of the environment imposed upon the states through constitution(Forty Second Amendment¹⁶) Act, 1976.

India being a developing nation has obligation under numerous international treaties and agreements that relate to environmental issues¹⁷. India supported faithfully all international decision on safeguarding environment. India has carved out its national legislations on the problem to a large extent from international environmental policy guidelines framed by UNO and UNEP. International environmental policies are in the form of treaties, multilateral agreements, conventions and conferences. The treaty shall have force in international law, if it ratified by requisite number of countries. India is a signatory to a number of multilateral agreements, treaties and conventions related to environment. An

¹⁵ 'Generation of E-waste', Rajya Sabha Unstarred Question No. 24, dated 26.07.2010.

¹⁶ Article 48-A[xiv] the provision reads as follows: "the state shall endeavour to protect and improve the environment and to safeguard the forest and wildlife of the country"
Article 51-A (g)[xv] "it shall be duty of every citizen of India to protect and improve the natural environment including the natural environment including forests, lakes and wildlife and to have compassion for living creature."

¹⁷ Article 51. Promotion of international peace and security the state shall endeavour to (a) promote international peace and security; (b) maintain just and honourable relations between nations; (c) foster respect for international law and treaty obligations in the dealing of organisation peoples with one another; and encourage settlement of international disputes by arbitration. Part IVA Fundamental Duties

overview of some of the major multilateral agreement, treaties and conventions on environment and India's obligations are discussed.

The following are the important international conventions relating to environment.

- **Stockholm Declaration 1972**

The United Nations Conference on the human environment held at Stockholm from 5th to 6th June 1972, which is generally called as the “Stockholm Conference”. It was the first declaration of international protection of the environment. In the conference 113 states were participated, including India and accepted such declaration. The Stockholm Declaration contains 26 principles. These principles provide the basis of an International Policy for the Protection and improvement of the environment. The United Nations Environment Programme has been established by the United Nations General Assembly in pursuance of the Stockholm Conference. The Environmental Programme was set up in Geneva in June 1972. The Stockholm Declaration influenced all the State Governments. Several governments have brought legislation on the environment. The object of the Stockholm Declaration was to pass the Mother Earth to the coming generations in clean and healthy conditions.

- **Convention on International Trade in Endangered species of Wild flora and fauna (CITES) 1973**

The Conference aims to control or prevent international commercial trade in endangered species or products derived from them. The Convention does not seek to directly protect endangered species, rather it seeks to reduce the economic incentive to poach endangered species and destroy their habitat by closing off the international market. India became a party to the convention in 1976. International trade in all wild flora and fauna in general and species covered under convention is regulated jointly 62 through the provisions of the Wild life (protection) Act 1972, the import/ export policy of government of India and the Customs Act 1962.

- **Vienna convention for the protection of ozone layer (1985)**

The convention was adopted on 22nd March, 1985 by the conference of Plenipotentiaries which was organized by the UNEP. The convention came into force on sep 22, 1988. The main object of the convention was to provide to States the international legal framework for working together to protect the stratospheric ozone layer. The Vienna convention of 1985 was the starting point of the global cooperation for protection of ozone layer. Later, adoption of Montreal protocol on substances that deplete ozone layer on 1987, the amendment in Montreal protocol in London (1990) and Vienna (1995).

- **Montreal protocol on substances that deplete ozone layer, 1987**

The Protocol came into force in 1989 as amended in 1990, 92 and 95 was adopted and by 2000, 173 states have become parties to Montreal protocol. The protocol set targets for reducing the consumption and production of a range of ozone depleting substances. In a

major innovation the protocol recognized that all nations should not be treated equally. The agreement acknowledges that certain countries have contributed to ozone depletion more than others. It also recognizes that a nation's obligation to reduce 64 current emissions should reflect its technological and financial ability to do so. Because of this, the agreement sets more stringent standards and accelerated phase-out timetables to countries that have contributed most to ozone depletion. India accepted this protocol along with its London Amendment in September 1992. The Ministry of Environment and Forest has established an ozone cell and a steering committee on the protocol to facilitate implementation of the India country program, for phasing out ozone depleting substances production by 2010 to meet the commitments India has also taken policy decisions. The Ozone Depleting Substances (Regulation and Control) Rules 2000 were drafted under Environment (protection) Act, 1986.

- **Helsinki Declaration 1989: On protection of Ozone layer, phase out CFC Production and consumption by 2000.**
- **Basel convention on transboundary movement of hazardous wastes, 1989**

The Convention came into force in 1992. The objectives of the convention are to reduce transboundary movements of hazardous wastes, to minimize the creation of such wastes and to prohibit their shipment to countries lacking the capacity to dispose hazardous wastes in an environmentally sound manner. India ratified the convention and enacted Hazardous Wastes Management Rules Act 1989, encompasses some of the Basal provisions related to the notification of import and export of hazardous wastes, illegal traffic and liability.

- **Earth Summit 1992**

In continuation of Stockholm Declaration, 1972 and the Nairobi Declaration, 1982 the third major Declaration was held in Rio-de-Janeiro in Brazil in the year 1992. Hence it is termed as Rio-Declaration and attended by over 150 countries. Hence, it is also well known as —Earth Summit. It discussed global and environmental problems very widely. It was the biggest International Conference in the history of International relations. The Rio-Declaration, a statement consisting of 27 principles on the environment and development. Maurice Strong, Secretary General of the Earth Summit remarked that the Earth Summit was a successful one. But the developed countries have exploited the natural resources abundantly and mercilessly, but did not come to assist the environmental recoument the reserve of developing countries by rendering their technology and finance to achieve the goal of sustainable development. However, to the third world hoped that a road map was started from Rio with a better future for the world. At the Rio declaration it was resolved to adopt the Agenda 21. Two other conventions were adopted namely (1) the convention on Biodiversity and the convention on the reduction of greenhouse gases. These aspects have to be explained before dealing with the UN framework convention on climate change 1992.

- **U.N. Frame Work Convention on Climate Change (UNFCCC), 1992**

The primary goals of the UNFCCC were to stabilize greenhouse gas emissions at levels that would prevent dangerous anthropogenic interference with the global climate. India signed the agreement in June 1992 which was ratified in November 1993. As per the convention the reduction/limitation requirements apply only to developed countries. The only reporting obligation for developing countries relates to the construction of a GHG inventory.

- **Convention on Biological Diversity, 1992**

This convention is a legally binding framework treaty that has been ratified by 180 countries. The areas that are dealt by convention are conservation of biodiversity, sustainable use of biological resources and equitable sharing of benefits arising from their sustainable use. The convention came into force in 1993. Many biodiversity issues are addressed including habitat preservation, intellectual property rights, biosafety and indigenous people's rights. India's initiative under the convention on biodiversity includes the promulgation of the Wild life (protection) Act of 1972, amended in 1991 and participation in several international conventions.

- **U.N. Convention on Desertification, 1994**

An inter-governmental negotiating committee for the elaboration of an international convention to combat desertification in countries experiencing serious drought and/ or desertification was recommended in 1992 U.N. Conference on Environment and Development. The U.N. General Assembly established a committee in 1992 which helped formulation of the convention on desertification. The convention endorses and employs a bottom-up approach to international environmental cooperation. Under the terms of the convention, activities related to the control and alleviation of desertification and its effects are to be closely linked to the needs and participation of local land-users and non-governmental organizations. The convention aims at tackling desertification through national, regional and sub-regional action programmes. India hosts the network on agro forestry and soil conservation.

- **Johannesburg Declaration 2002**

Yet, another Earth Summit was held at Johannesburg, South Africa, from 26th August to 4th September 2002. It was the consequential follow up action of the decision of the Earth Summit 1992. Johannesburg conference confirmed that significant progress has been made towards achieving a global consensus and partnership amongst all the people of our planet. Over 4000 delegates from about 100 countries participated in it. Stockholm Convention 2004: It was held on May 17th aims at phasing out 12 dangerous pesticides and industrial pollutants. More than 150 countries have signed it and about 60 have ratified it.

- **Convention on Climate Change**

This convention was adopted on Feb. 2005 for successfully achieving the challenges framed in Kyoto protocol 2005 i.e. reduction of global warming and protection from depletion of

Ozone layer and other natural hazards. Regarding this convention International environment policy was adopted on 15 Nov. 2006 and many other conferences were held by the parties to the climate change convention to protect natural environment from climate change. The Inter-Governmental panel on climate change, which will issue its fourth assessment report. Climate change 2007 brings together worldwide expertise and has identified some clear steps towards mitigation of climate change.

The treaties which are ratified by India are as follows-

- 1) The Antarctic Treaty (Washington, 1959)
- 2) Convention on wet lands of International importance, especially as water fowl Habit (Ramsar 1971).
- 3) Convention concerning the protection of the world cultural and National heritage (Paris 1972).
- 4) Convention on International Trade in Endangered species of wild fauna and Flora (Washington, 1973)
- 5) Protocol of 1978 relating to the International convention for the prevention of pollution from ships, 1973 (MARFOL) (London 1978)
- 6) Convention on the conservation of Migratory species of wild animals (Bonn, 1979)
- 7) Convention on the conservation of Antarctic Marine living Resources (Cantern a, 1980)
- 8) United Nations convention on the Law of the Sea (Montego Bay; 1982)
- 9) Convention for the protection of the Ozone layer (Vienna, 1985)
- 10) Protocol on substances that deplete the Ozone layer (Montreal, 1987)
- 11) Amendments to the Montreal protocol on substance that Deplete the Ozone layer (London, 199014
- 12) Convention on the control of Transboundary Movements of Hazardous wastes and their disposal (Basel, 1989)
- 13) United Nations frame work convention on climate change (Rio de Janeiro, 1992)
- 14) Convention on Biological Diversity (Rio de Janeiro, 1992)
- 15) Convention to combat Desertification in those countries experiencing serious drought and or densification particularly in Africa (Paris, 1994)
- 16) International tropical0inter Agreement (Geneva 1994)
- 17) Protocol on Environmental protection to the Antarctica Treaty (Madrid, 1991)

Until 1972, the environmental issues had been dealt with by international conventions in only a fragmentary manner, but since Stockholm conference the source of international law is found in resolutions and declarations and of major international conferences.

- **Kyoto Protocol (1997)**

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The UNFCCC is an international environmental treaty with the goal of achieving the “stabilization of greenhouse gas concentration in the atmosphere at an optimum level. The major features of the Kyoto Protocol is that its sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions by 5.2% compared to the year 1990. As a result of 150 years of industrial activity, the Protocol places a heavier burden on developed nation under the principles of “common but differentiated responsibilities”.

- **Paris Agreement on Climate Change, 2016**

On 12 December 2015, the Paris Agreement was adopted as an agreement with in the UNFCCC framework. 192 countries have signed this agreement (including India). 94 Countries have ratified (including India). India ratified on 02 October 2016. It will come into force on 4 November 2016 after ratification by 55 UNFCCC Parties, accounting for 55% of global greenhouse gas emissions. Paris Agreement will replace the Kyoto Protocol after its second commitment period ends on 31 January 2020. For the first time in more than 20 years of UN’s climate negotiations, the COP21 accomplished a legally binding and universal agreement on climate: The Paris Agreement. A voluntary pledge made by 188 parties (countries) to climate change action in the shape of Intended Nationally Determined Contributions (INDCs). Emissions-slashing pledges from individual countries and promises to help the developing nations adapt to the detrimental effects of global warming. Moreover, the negotiators agreed on measures to amend, strengthen; and scrutinize countries’ individual contributions (INDCs). India ratified the Paris agreement on climate change on 2nd October 2016.

CONCLUSION

As technology advances, it is important that scientist and regulatory agencies assess the importance of both new and existing technology for environment activities. Some aspects of the environment impacts are unique to the technologies and require operational studies to determine the seriousness of the effect and the best mitigation options. Through the years, the government of India has passed innumerable laws to help them in their task of environment protection. Sadly, all the regulations and acts have not done enough to protect the environment; the greed of many in the government bodies has led to misuse of the laws and ruthless exploitation of the land, leading to ecological destruction and social injustices. Legal action to protect and preserve the environment is not up to the mark due to poor enforcement of environment protection laws. It is high time that people all over the world wake up and realize the true magnitude of the damage wrecked on the earth in the guise

of development. All these add up to an unredeemable violation and people cannot, any more succumb to fatalism or eat the opium of industrial and technological development involving human casualties as an inevitable evil. The researcher submits to eliminate the subdued though that has been too deeply ingrained in the psyche that expenses on environment protection is a sheer waste and make the common man suffer has to discarded from the minds of people.