A Review on Law Pertaining Protection and Conservation of the Environment and Sustainable Use of Natural Resources

[1]Anita Chakraborty, [2]Gopal Sharma [3]J N Singh

Abstract:

Environment plays a vital role in the over-all well-being of human existence and their development. Protection and conservation of environment is the need of the hour. The need is also to ensure the sustainable utilization of the existing natural resources. The fact is also being strongly reflected in the constitutional framework of India as well as in India's international commitments. Under Part IVA of constitution (Article 48A- Directive Principles of State Policies) stipulates that the State shall try to improve and protect the environment and safeguard forests and wildlife of the country. Furthermore, Part IVA of the Constitution also (Article 51A- Fundamental Duties), casts a duty on every citizen to improve and protect the nature and have compassion for all living beings. Since the 1970s, a number of environment legislations have been put forward. The apex administrative body in India i.e Ministry of Environment and Forest was established in year 1985. Today MoEF is responsible for regulating and ensuring environmental protection and lays down the legal and regulatory framework for the same. The present manuscript is an effort to review the Law pertaining protection and conservation of the environment and their sustainable utilization in India with special emphasis on State of Jharkhand.

Key words: Environment, constitution, natural resource, conservation, framework.

Corresponding Author: [1]Asstitant Professor, Department of Botany, SSLNT M College, BBMK University, Jharkhand, India, email: anitagcenator@gmail.com

Author

[2]Scientist 'E' and Officer –In – Charge, Zoological Survey of India, Patna, India

[3]Principal, RSP Jharia College, Jharia, BBMK University, Jharkhand, India

Introduction:

Environment plays a vital role in the over-all well-being of human existence and their development. Protection and conservation of environment is the need of the hour. The need is also to ensure the sustainable utilization of the existing natural resources. The fact is also being strongly reflected in the constitutional framework of India as well as in India's international commitments. Under Part IVA of constitution (Article 48A- Directive Principles of State Policies) stipulates that the State shall try to improve and protect the environment and safeguard forests and wildlife of the country. Furthermore, Part IVA of the Constitution also (Article 51A- Fundamental Duties), casts a duty on every citizen to improve and protect the nature and have compassion for all living beings. Environment protection legislation has an age old history, it was in to existence before the Independence of India, however it was strongly advocated and put in to consideration for the framework came only after the UN conference on the Human Environment in Stockholm, 1972.

Soon National Council for Environmental Policy and Planning was set up in 1972 within the Department of Science and Technology to establish a regulatory body to look after the environment-related issues. Later the council evolved in to The Ministry of Environment and Forests in year 1985 which later raised to The Ministry of Environment, Forest and Climate Change (MoEFCC) in year 2014 which is the principal nodal agency in the administrative structure of the Central Government for the planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry policies and programmes.

Material and Methods:

Methodology and approach towards the present manuscript to review the Law pertaining protection and conservation of the environment and their sustainable utilization in India with special emphasis on State of Jharkhand was specifically done after the coliation of secondary data available. Secondary data includes various manuscripts, repost and online information centers.

Observation and Discussion:

After the Stockholm conference, both central and state governments passed

series of statutory acts for the protection and improvement of environment [1] (Teri, 2019). These may be summed up as follows:

(i) The Water (Prevention and Control of Pollution) Act 1974: The Water (Prevention and Control of Pollution) Act was enacted in 1974 to provide for the prevention and control of water pollution, and for the maintaining or restoring of wholesomeness of water in the country. The Act was amended in 1988. The Water (Prevention and Control of Pollution) Cess Act was enacted in 1977, to provide for the levy and collection of a cess on water consumed by persons operating and carrying on certain types of industrial activities. This cess is collected with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution constituted under the Water (Prevention and Control of Pollution) Act, 1974. The Act was last amended in 2003.

(ii) The Air (Prevention and Control of Pollution) Act, 1981: The Air (Prevention and Control of Pollution) Act, 1981 (the "Air Act") is an act to provide for the prevention, control and abatement of air pollution and for the establishment of Boards at the Central and State levels with a view to carrying out the aforesaid purposes.

To counter the problems associated with air pollution, ambient air quality standards were established under the Air Act. The Air Act seeks to combat air pollution by prohibiting the use of polluting fuels and substances, as well as by regulating appliances that give rise to air pollution. The Air Act empowers the State Government, after consultation with the SPCBs, to declare any area or areas within the Sate as air pollution control area or areas. Under the Act, establishing or operating any industrial plant in the pollution control area requires consent from SPCBs. SPCBs are also expected to test the air in air pollution control areas, inspect pollution control equipment, and manufacturing processes.

(iii) The Environment (Protection) Act, 1986 (EPA): The Environment (Protection) Act, 1986 authorizes the central government to protect and improve environmental quality, control and reduce pollution from all sources, and prohibit or restrict the setting and/or operation of any industrial facility on environmental grounds. The Act covers all forms of pollution; air, water, soil and noise. It provides the safe

standards for the presence of various pollutants in the environment. It provides the use of hazardous material unless prior permission is taken from the Central Government.

(iv) The Manufacture, storage and Import of Hazardous Chemical Rules, 1989; Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 1989: The regulation was firstly enacted in 1989 by the Ministry of Environment & Forests (MoEF) and later amended in 1994 and 2000. It regulates the manufacture, storage and import of hazardous chemicals in India. The transport of hazardous chemicals must meet the provisions of the Motor Vehicles Act, 1988.

"Hazardous Chemicals" includes 3 schedules. Regulatory requirements are different for each schedule.

In July 2011, the Ministry of Environment and Forests published a draft document called Hazardous Substances (Classification, Packaging and Labelling) Rules, 2011. It is fully assigned with UN GHS. Even though the rules have never officially been adopted.

(v) The Hazardous waste (Management and Handling) Rules, 1989: Hazardous Waste Management Rules are notified to ensure safe handling, generation, processing, treatment, package, storage, transportation, use reprocessing, collection, conversion, and offering for sale, destruction and disposal of Hazardous Waste. These Rules came into effect in the year 1989 and have been amended later in the years 2000, 2003 and with final notification of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 in supersession of former notification. The Rules lay down corresponding duties of various authorities such as MoEF, CPCB, State/UT Govts., SPCBs/PCCs, DGFT, Port Authority and Custom Authority while State Pollution Control Boards/ Pollution Control Committees have been designated with wider responsibilities touching across almost every aspect of Hazardous wastes generation, handing and their disposal.

(vi) The Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/ Genetically Engineered Organisms of Cells Rules, 1989: In exercise of the powers conferred by sections 6,8 and 25 of

the Environment (Protection) Act, 1986 (29 of 1986) and with a view to protecting the environment, nature and health, in connection with the application of gene technology and micro-organisms, the Central Government makes rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/ Genetically Engineered Organisms of Cells Rules, 1989. These rules and regulations cover the areas of research as well as large scale applications of Genetically Modified Organism (GMOs) and products made there from throughout India. The rules also cover the application of hazardous microorganisms which may not be genetically modified. Hazardous microorganisms include those which are pathogenic to animals as well as plants.

(vii) The Public Liability Insurance Act, 1991: An Act to provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling any hazardous substance and for matters connected therewith or incidental thereto. The Law regulates mandatory liability insurance. Under the law, companies must commit to installing and handling hazardous materials that have been reported under the Environmental Protection Act, 1986. It is basically a part of tort law, which focuses on the misconduct of civil law. The applicant (the injured party) usually sues the accused (owner or convict) according to general law due to negligence and/or damage. Claims are generally successful if it can be proven that the owner/occupant is responsible for the injury and therefore violating his maintenance obligations. Once a due diligence violation has been identified, a lawsuit in a court may succeed. The court will provide financial compensation based on the applicant's injury and loss. As the rate of such dangerous industries grows it is a threat not only to the employees or the workers but also the people near.

(viii) The National Environmental Tribunal Act, 1995: An Act to provide for strict liability for damages arising out of any accident occurring while handling any hazardous substance and for the establishment of a National Environment Tribunal for effective and expeditious disposal of cases arising from such accident, with a view to giving relief and compensation for damages to persons, property and the

environment and for matters connected therewith or incidental thereto.

(ix) The Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996: In exercise of the power conferred by Section 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the rules, namely The Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996 in view that a vast number of Chemicals are in use at present and they pose vital threat to the environment and mankind, unless handled and managed in proper way, and hence the rule was (the Govt. of India has Rules under title Chemical Accidents (Emergency planning, Preparedness and response) Rules, 1996) framed to effectively deal with Chemical emergency.

(x) The National Environment Appellate Authority Act, 1997: An Act to provide for the establishment of a National Environment Appellate Authority to hear appeals with respect to restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act, 1986 and for matters connected therewith or incidental thereto.

(xi) The Recycled Plastic Manufacture and Usage Rules, 1999: In exercise of the powers conferred by Clause (viii) of sub-section (2) of Section 3 read with Section 25 of the Environment (Protection) Act, 1986, the Central Government notifies the rules for the manufacture and use of recycled plastics, carry bags and containers. These rules may be called the Recycled Plastics Manufacture and Usage Rules, 1999.

(xii) The Biomedical Waste (Management & Handling) Rules, 2000: Notification in exercise of the powers conferred by Sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) The new bio-medical waste management rules has been notified to efficiently manage the generated biowaste in the country. Biomedical waste comprises human & animal anatomical waste, treatment apparatus likeneedles, syringes and other materials used in health care facilities in the process of treatment and research. This waste is generated during diagnosis, treatment or immunisation in hospitals, nursing homes, pathological laboratories, blood bank, etc. Total bio-

medical waste generation in the country is 484 TPD from 1,68,869 healthcare facilities (HCF), out of which 447 TPD is treated.

(xiii) The Ozone Depleting Substances (Regulation and Control) Rules, 2000: In exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986, the Central Government hereby makes the following rules for regulating ozone depleting substances, namely The Ozone Depleting Substances (Regulation and Control) Rules, 2000. The rules provide for the regulation of production and consumption of ozone-depleting substances in accord with the Montreal Protocol On Substances that deplete the Ozone Layer, adopted on 16th September 1987. Production and usage must not exceed set standards and it is not allowed to sell, trade, circulate or storage those substances as per the annexed list without a special license. The rules provide also for products which contains ozone depleting substances and restrictions to sale, trade and usage are detailed.

(xiv) The Noise Pollution (Regulation and Control) Rules, 2000: In exercise of the powers conferred by clause (ii) of sub-section (2) of section 3, sub-section (1) and clause (b) of sub-section (2) of section 6 and section 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following rules for the regulation and control of noise producing and generating sources, namely "The Noise Pollution (Regulation And Control) Rules, 2000". Objective of the Noise Pollution (Regulation & Control) Rules, 2000- to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise.

(xv) The Batteries (Management and Handling) Rules, 2001: **M**inistry of Environment and Forests (MoEF) has notified the final rules entitled 'B 'Batteries (Management and Handling) Rules, 2001 on May 16, 2001 in order to regulate the collection and recycling of the used lead-acid batteries in the country. Lead is one of the metals well known for its potential to cause environmental and health hazards. The disposal of used lead-acid batteries has been a major environmental problem world-wide.

(xvi) The Biodiversity Protection Act, 2002: The Biological Diversity Act 2002 was born out of India's attempt to realize the objectives enshrined in the United Nations Convention on Biological Diversity (CBD), 1992 which recognizes the sovereign rights of states to use their own Biological Resources. The Act aims at the conservation of biological resources and associated knowledge as well as facilitating access to them in a sustainable manner. The National Biodiversity Authority in Chennai has been established for the purposes of implementing the objects of the Act.

(xvii) The National Environmental Policy, 2006: The National Environment Policy (NEP), 2006 was an effort towards India's commitment to clean environment and making positive contribution to international efforts. The NEP builds on the various earlier policies which had addressed the challenges of environment and need of sustainable development prior to this policy. Some of them were: a) National Forest Policy, 1988 b) National Conservation Strategy and Policy Statement on Environment and Development, 1992 c) Policy Statement on Abatement of Pollution,1992 d) National Agriculture Policy, 2000 e) National Population Policy, 2000 f) National Water Policy, 2002

(xviii) The National Green Tribunal Act, 2010: The National Green Tribunal Act, 2010 (No. 19 of 2010) (NGT Act) has been enacted with the objectives to provide for establishment of a National Green Tribunal (NGT) for the effective and expeditious disposal of cases relating to environment protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. The Act received the assent of the President of India on June 2, 2010, and was enforced by the Central Government vide Notification no. S.O. 2569(E) dated October 18, 2010, with effect from October 18, 2010. The Act envisages establishment of NGT in order to deal with all environmental laws relating to air and water pollution, the Environment Protection Act, the Forest Conservation Act and the Biodiversity Act as have been set out in Schedule I of the NGT Act.

The presence of long list is an indication that the legislature (both at Centre

and State level) has done its level best to formulate laws for the protection of environment, even to the extent of a constitutional amendment. However we cannot deny the fact the governance in the field of environmental protection and improvement is still taken in a very light shade as compared to the other law of the country. Not only the agencies and the stake holders also behave callous and utter lethargic towards the environmental concerns and issues.

The name Jharkhand has been derived from the Sanskrit word, *Jhari Khanda* depicting the regions with dense forest. Thus, both naturally and symbolically, the States' represents its very fundamental existence closely associated with forests. The State also represents the presence of various ethnic groups *Munda, Ho, Oraon, Santhal, Paharia, Chero, Birjea, Asura, Kharia* and many others. The history indicates that these indigenous tribes have lived in harmony and developing in co-existence with their environment. They strongly advocate a culture which is completely nature-centric. These groups have showed a symbiotic relationship with its immediate nature which is well depicted from their festivals like Karma and Sarhul, where the trees are worshiped as the God. Since these autochthonous races are closely connected with nature, the ever increased lopsided development leading to the large scale exploitation of natural resources has not only had an adverse impact on the environment, but has also drastically affected their lives and livelihood specifically.

The State has immensely rich mineral resources accounting to approximately 50% of the countries' resources. Minerals like iron ore, coal, copper, mica, bauxite, manganese, lime stone, uranium and many more are found in abundance in the State. The State also harbors Steel giants, Thermal Power Generation Units and aluminum plants are dependent on supply of iron, coal and bauxite available in the State. Massive Industrialization, a booming economy and employment opportunities are some of the boons of being a mineral rich state. Massive Industrialization, a booming economy and employment opportunities are some of the advantages of being a mineral rich state, but unfortunately this growth and the developmental index had poised a lopsided impact on the basic essence of the State i.e. rich biodiversity and lush forestry. The large scale mining operation for the extraction of various kind of minerals and ores have adversely affected both the surface and ground water tables. Huge unmanaged sewage and non-treated effluents discharge in most of the rivers like Bokaro, Damodar,Jumar, Karo, North Koel, Koel, Sankh and Subarnarekha have seriously polluted several

kilometer of stretches of these Rivers. Acid mine drainage, liquid effluents from coal handling plants, colliery workshops and mine sites and suspended solids from coal washeries have caused serious water pollution in the region, adversely affecting fish and aquatic life (SANDRP, 2016).

The lush and rich biodiversity of the State is under constant pressure due to unsustainable harvest of resources, habitat destruction and fragmentation, impact of pollutants, and competition with colonizing by exotic and invasive species had impacted the indigenous plant varieties. The unsustainable harvest of the natural resources both forest (illicit felling, firewood and fodder collection) and non-forest (habitat destruction and fragmentation of the existing ecosystems) origin have a constant threat which requires immediate top-bottom approach interventions. Poaching, destruction, fragmentation and disturbance of natural habitat of many wildlife have created severe threat to them and had in consequences triggers rise in animal-human conflicts. Other factors like industrialization, urbanization, agricultural activities, stone quarrying, and unrestricted grazing by free range cattle, mining activities, construction of railway tracks, roads, dams and other developmental activities had added a huge magnitude to the existing threats to the biodiversity [2].

Asiatic Elephant *Elephas maximus* (Endangered Category; Choudhury et. al. 2008) [3]; Sloth bear *Melursusur sinus* (Vulnerable Category; Garshelis et. al. 2008) [4] and Indian giant squirrel *Ratufa indica* (Least Concern Category; Rajamani et. al. 2009)[5]. Races of two species of birds, Green-billed Malkoha *Phaenicophaeus tristis tristis*, and Pin-Striped Tit Babbler *Macronous gularis rubicapilla* has been reported from the State. Indian chameleon *Chamaeleo zeylanicus* which is listed in Schedule II of the Indian Wildlife (Protection) Act, 1972 is also reported from the State. All these distinct wildlife reported from the State is under the threat of unmanaged and unsustainable growth and extraction of the resources. Adaptation, dissemination and cultivation of the new improved crop varieties have replaced the indigenous varieties [6].

Investigation further detected significant changes in land use and land cover from 1987 to 2017 (in distinct District of Dhanbad). The land area under LDF (low dense forest), AL (agricultural land), BL (barren land), S (Sand) and BU (built-up) increased while DF (dense forest), OS (open scrub), AF (agricultural fallow), R (river), WB (water body) and M (mining) decreased. The increase in

LDF (Low dense forest) by 98.38% was attributed to conservation/afforestation efforts and partly by conversion of dense forest. There was a substantial increase in AL (agricultural land) by 119.06 % was due to the diversion of mostly open scrub, forest land and agricultural fallow for agriculture purposes by the local villagers.

The LU/LC change results in West Singbhum, has also concluded same result that (both forest and vegetation) has been changed 2017.037 km^2 (net change), about 26.17% between the year 1997 and 2017. The forest cover area changed 100.85 km^2/ year in the period of 20 years. The total changed forest area converted to vegetation, barren land and agriculture land [7].

Conclusion

Sustainable Development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it, two key concepts:

- The concepts of 'needs' , in particular, the essential needs of the world's poor, to which overriding priority should be given;
- The idea of limitations imposed by the State of technology and social organization on the environment's ability to meet present and future needs.

At present the need of sustainable management and utilization has been realized. Special efforts are being taken by both at State of Jharkhand and the Central Government level to overcome the already meant damages to the Natural Resources. While implementing the Sustainable Development Goals (SDGs) for 2030 Niti Aayog is making efforts to ensure that the entire country being properly consuming the available natural resources. The Adivasi tribals association with wildlife (in Jharkhand) has been there for years. The resources and the sustainable development of the people of Jharkhand, which are rich in natural wealth, are seen in this.

Economic development of the country is possible only through natural resources. About 5.77 million trees have been planted so far in Jharkhand which indicates a positive move towards the sustainable development. Efforts are also being made for water management and convergence. Trees are being planted in farm land under the CM Jan

Yojana in the State. Due to these efforts of the government, plantation has now taken the form of a mass movement.

Government had taken a top down approach and had involved all Panchayat behind the success of this campaign for these plantation efforts.

The need for environmental consciousness was always being in agenda way back in our history. Our father of the nation, Mahatama Gandhi had reasonable apprehensions of Man's infinite and unending desires, and as such he noted – "Mother Nature has enough for our needs but not enough for our greed". Without the collaboration and detriment of both human beings and non- human beings evolution is not possible.

Acknowledgment:

The authors are grateful to Dr. Kalpana Prasad, Head, Department of Botany, BBMK University, Dhanbad, for her valuable suggestions to draft the manuscripts. The authors are also thankful to the Dr Sharmila Rani, Principal, SSLNT Mahila Mahavidlaya for their kind support and constant encouragement.

Declaration of Conflict of Interest

The authors declared no potential conflicts of interest concerning the research authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

Reference:

1. Teri 2019. Environmental policy-making in India – The process and its pressure, TERI report

2. Kate K., Bishop J., & Bayon R. (2004). Biodiversity Offsets: Views, Experience, and the Business Case. IUCN, Gland, Switzerland and Cambridge, UK and Insight Investment, London, UK, pp. 95.

3. Choudhury A., Choudhury D. K., Desai A., Duckworth J. W., Eeasa P. S., Johnsingh A. J., Fernando P., Hedges S., Gunawardena M., Kurt F.,

Karanth U., Lister A., Menon V., Riddle A. R. & Wikramanayake E. (2008). Elephas maximus. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2.

4. Garshelis, D. L., Ratnayeke S. & Chauhan N. P. S. (2008). Melursus ursinus. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2.

5. Rajamani N., Molur S. & Nameer P. O. (2009). Ratufa indica. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2.

6. Sharma B. K., Tiwary V. K. Singh D. K. (2008). Jharenvis; Environmental information system. Department of forest and environment, Jharkhand.

7. Bera, S, Ahmad, M and Prakash A 2018. Forest Cover Change Analysis Based on Remote Sensing & GIS of West Singbhum District, Jharkhand. IJRASET, Vol. 6 (V) 1039-1050. PP.

8. South Asia Network on Dams, Rivers and People, 2016. Rivers of Jharkhand