CHAPTER-III
NATIONAL LAWS RELATING TO THE HAZARDOUS WASTE MANAGEMENT IN INDIA

Under growing pressure from national and international bodies the governments worldwide began to think concern over the environmental protection during 1960s. Simultaneously, the Government of India introduced legislations, ministries or environmental agencies to preserve, promote and protect the quality of air, water and environment. Environmental laws in India comprise a numbers of rules and regulations. But enactment of laws alone cannot solve the problem of environment pollution. Use of resources at unsustainable level and contamination of the environment through improper hazardous wastes management are the main factor responsible for environmental pollution. Achieving sustainable development requires reducing hazardous wastes generation as well as development of society in the parallel way. Since its inception India has great concern over environmental protection in comparison to the other country. Environmental destruction and pollution has seriously threatened the human life, health and livelihood.

In the present era of open global market economy, industries using hazardous materials are no doubt playing a vital role in the economic development and the advancement of the well being of the people in the country, but simultaneously they are causing the problems of risk to human life and the environment[1]. It must be

[1] N.S. Kamboj, "Population Growth -Prime Cause of Environmental Pollution and its Legal Control in India", XXIH (i) *IBR* 1 (1995)

responsibility of the individual State to regulate wastes related legislative framework for proper management, handling, treatment and disposal of hazardous wastes and to punish them who violates these legislations. National Laws should imposed compulsions or restrictions on hazardous wastes generators and transporters to perform technology based standard to treatment and disposal of hazardous wastes. Some countries have found that stringent regulation of hazardous wastes management may drive up cost of legal management, creating a perverse incentive to illegal dispose of hazardous waste on open spaces, making an effective enforcement program an essential ingredient of any effort to control hazardous activity[2].

National laws relating to the hazardous wastes management determines quality, types and characteristics of a waste material by adopting scientific method of testing such substances. Such laws provide liability of an occupier, generator of hazardous wastes. The Judiciary in India also played an important role in this respect by providing common law remedies. Therefore there is a matter of consideration to what extend Judiciary is preeminent above all these common law remedies. Environment is a polycentric and multifaceted problem affecting the human existence. If for the progress of the society industry is necessary, pollution is inevitable. Science, pollution and progress go together; there can be no end of the progress, and consequently no escape from pollution. If industry is a necessary evil, pollution surest sufferance[3]. Developing country like India has faced economic crises for

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[2] K.K. Jayashankar and Philip Johnson, *Environmental Law* 201 (Pacific Books International, Delhi, 1st edn., 2011)

[3] P.S. Jaiswal and NisthaJaswal, *Environmental Law* 1 (Allahabad Law Agency, Haryana, 3rd edn., 2009)

environmentally sound management of hazardous wastes. Lack of equipped treatment and disposal facility, man power, expert, problem of transboundary movement are the major challenges facing the hazardous wastes management in India.

3.1 The Constitutional Mandates to pollution free Environment in India.

India is the country that has given a constitutional status to the Law relating to environmental control, protection and preservation. Many provisions have been added in the body of the constitution thereby making it obligatory on the State and the every citizen to protect and improve the environment[4]. In 1950, the Constitution of India did not include any specific provision relating to environmental protection or nature conservation. Presumably, the acute environmental problems being faced now in the country were not visualized by the framers of the Constitution. However, the past five decades have witnessed two major developments in this connection. The first development took place when the Constitution (Forty-second Amendment) Act, 1976[5], was adopted in the mid-seventies.

Indian legislature is increasingly supportive of stringent environmental legislations and Regulations. Various legislations have been enacted by Indian Parliament to tackle the problem of environmental protection. Specific provisions relating to certain aspects of the environment, more especially for the protection of the forests and wildlife in the country, were incorporated in Part IV- Directive Principles of the State Policy – and List III – The Concurrent List – of the Seventh Schedule of the Constitution. As a result, the Constitution has now the provisions specifically

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4 M.R. Garg, N.S. Tiwana, *et.al*. (eds.), *Environmental pollution and protection*, 258 (Deep &Deep Publications Pvt. Ltd., New Delhi, 1st edn.1995)

5 The Act was milestone in the history of environmental protection in India.

relating to environment protection and nature conservation viz., Part IV[6], Part IV-A[7]It shall be the duty of every citizen of India – (g). Seventh Schedule (Article 246) List III - Concurrent List Item no. 17 Prevention of cruelty to animals, Item no. 17A Forests, Item no. 17B Protection of wild animals and birds. This shows the concern of our parliaments to give priority to environment protection by bringing it on the national agenda.[8]

The constitution provisions, especially fundamental rights and in particular Article 21 has been broadly construed by the judiciary for life saving environment. The court attempted to expand the reach and ambit of Article 21 rather than accentuate their meaning and content by judicial construction. Two methods are used by Supreme Court to strengthen Article 21 and to interpret unremunerated rights under Article 21, it required laws affecting personal liberty to pass the tests of Article 14 and 19 of the constitution, thereby ensuring that the procedure depriving a person of his or her personal liberty be reasonable, fair and just. It is by this method the Supreme Court interpreted the right to life and personal liberty to include the right to wholesome environment and all other rights. Thus Courts have undertaken to explicate the development of ideology of environment as being part of the right to life by various judicial pronouncements.

The judiciary broadened the reach and ambit of Article 21 through expanding the concept and scope of personal liberty so as to include within it's all the varieties of rights which go to make the personal liberties of man. Law being an instrument of

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6 Directive Principles of State Policy (Article 48A) of the constitution.

7 Fundamental Duties (Article 51-A& 51-A(g)) of the constitution.

8 S.L. Agrawal (ed.) *Legal Control of Environmental Pollution* 1-7 (ILI Publication, Delhi, 1980)

social engineering obliges the judiciary to carry out the process established by it. Thus it is clear that article 21 has a multidimensional interpretation. Any arbitrary and whimsical act on the part of any state, depriving the life or personal liberty would be against Article 21 of the Indian constitution.

The Supreme Court has pronounced a number of judgments and orders and issued various directions with the objective of securing the protection and preservation of environment and enforcement of human rights of citizens. In Indian Council for Environ-Legal Action vs. Union of India,[9] the Supreme Court has implemented the right to wholesome environment as part of the Right to Life enshrined in Article 21. In this case it was observed that even though, it is not the function of the court to see the day-to-day enforcement of the laws, that being the function of the executive, but because of the non-functioning by the enforcement agency, the courts as of necessity have had to pass orders or direction to the enforcement agencies to implement the law for the protection of the fundamental rights of the people. Thus Right to Life envisaged in the Article means something more than survival of animal existence. “In terms of Article 21 of the Constitution, a person has a right to a decent life, good environment and maintenance of ecology.”[10]

3.1.1 Responsibilities and duties towards environment

Article 48-A of the Constitution imposes some responsibility to the state with regard to environmental protection which reads as follows: "The State shall Endeavour to protect and improve the environment and to safeguard the forests and wildlife of the

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[9] [1996) 5 SCC 281

[10] Durga Das Basu, *Introduction to the Constitution of India* 108 (Wadhwa and Company Law Publishers, Nagpur ,19th edition 2007)

country."[11] Environmental protection is a fundamental duty of every citizen of this country under Article 51-A (g) of our Constitution which reads as "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."[12] Article 48-A of the Constitution comes under Directive Principles of State Policy and Article 51 A (g) of the Constitution comes under Fundamental Duties. The environment and human life are interlinked hence the realization of many human rights is necessarily related to and in some ways dependent upon one's physical environment. In a growing number of cases, therefore, human rights tribunals are acknowledging that damage to the environment can impair and undermine all human rights.

The State as the trustee of all natural resources meant for public use, including lakes and ponds, is under a legal duty to protect them. Under Section 17(1) (a) of the Water Act, the function of the SPCB shall be to plan a comprehensive programme for the prevention, control and abatement of pollution of streams and wells in the State and secure the execution thereof. The above constitutional and statutory provisions clearly bring to fore the paramount duty of the State Government, Municipal and Panchayat authorities, the Area Development Authorities and other legal authorities, to protect and improve water-bodies as a part of environment and to ensure supply of safe water to the public. This obligation is of a positive nature requiring the State including the Area Development Authorities and the Local Bodies not only to shield

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[11] Gopal Sankaranarayanan, *The Constitution of India* 70 (Eastern Book Company, Lucknow sixth edition,2013)

[12] *Ibid* at 72

the peoples' common heritage of lakes, ponds, reservoirs and streams, but to prevent them from becoming extinct and to rejuvenate and preserve them quantitatively by harvesting rainwater and qualitatively by prescribing and enforcing standards of their water.

There is ample legislation to arm these authorities with the power to preserve these natural resources and prevent their abuse. In cases of material alteration or injury as amounting to unreasonable pollution the person affected has right to relief by way of injunction and can also claim damages from the polluter[13]. The duty of the State in this regard is clearly spelt out by the Apex Court in M.C. Mehta v. Kamal Nath,[14] and that of every citizen to protect the natural environment including lakes in M. C. Mehta v. Union of India[15], The necessity to limit the construction activities in the close vicinity of the two lakes was recognized by the Supreme Court, as noted above.

The lack of an overall framework and a multiplicity of instruments, there exists no competent statutory authority for formulating the water policy. Though it started law making for utilization of water resources since 1873, even today more than 90% of the laws enacted for the utilization of water resources are state level legislation. At the time of enactment of these laws the environmental factor was not at all serious concern. Utilization of water was a priority area rather than conservation of water. Moreover the sharing of river waters in India between the States that constitute the republic has given rise to long drawn legal battles. Among the early disputes regarding

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[13] S.L. Agrawal (ed.), *Legal Control of Environmental Pollution*15 (ILI Publication, Delhi, 1980)

[14] AIR (1997) 1 SCC 388

[15] AIR 1987 SC 965

the sharing of waters was the one between the States of Gujarat, Madhya Pradesh, Maharashtra and Rajasthan over the sharing of the waters of the river Narmada.

So in this new age of globalization it had become essential to have a fresh look at our water policy, taking into account of the new developments. At present, though the Centre formulates the water policy it has no constitutional mandate for implementing it, since water is a subject included in the State List. While law has predominantly tuned to the integrated approach, in practice adherence to its spirit has not been made in the sphere of inter-state river disputes. Lack of coordination between various bodies and levels of government has also been witnessed during the functioning of pollution control boards. Thus we can conclude that on the one hand, it gives directive to the State for protection and improvement of environment, and on the other hand it imposes a duty on every citizen to help in the preservation of natural environment.

3.1.2 Judicial mechanism for HWM

The Supreme Court directed the Government of India to set up authorities under EPA to get enforced orders and to further issue directions for the protection of environment and control of pollution. An important ingredient of environmental litigation is the element of procedural convenience. On the procedural side, *locus standi* requirements have been diluted in environmental actions and courts allow citizens to file Public Interest Litigation (PIL) for addressing violations of statutory mandates by the executive and private parties or situations where legal lacunae still persist. PILs have emerged as the most potent tool in the hands of Indian judiciary.

The Court has the power to refer scientific and technical aspects for investigation and opinion to expert bodies such as the appellate authority under the National Environmental Appellate Authority Act, 1997[16] and the power to direct the Central Government to determine and recover the cost of remedial measures from the polluter under Section 3 of the EPA of 1986. There can no legislation be error-proof in spite of the best efforts by the law maker. Sometimes they are hard pressed for time and they may also be ignorant of the technicalities involved in such specialized fields as air pollution. Moreover, they may leave the technicalities to the experts in the field who may not know much about legislation. A number of lacunas and loopholes have been noticed in its implementation.[17]

Section 15 of the EPA provides for contravention of the provisions of the Act and the rules and regulations issued under the Act to be punishable with imprisonment for a term which may extend to five years or with fine which may extend to one lakh rupees, or with both, and in case contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues. Similar are the provisions provided by the Air Act as well as the Water Act. The environmental laws provide for a certain procedure for taking cognizance of offences for e.g. Section 49 of the WPA, provides that no court shall take cognizance of any offence under this Act except on a complaint made by a Board or any officer authorised in this behalf by it; or any person who has given notice of not less than sixty days, of his intention to make a complaint, to the Board or officer

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[16] The Act was come into force on 30th day of January, 1997.

[17] M.R. Garg, V.K. Bansal, N.S. Tiwana (ed.s), *Environmental Pollution and Protection* 9 (Deep & Deep Publications Pvt. Ltd., New Delhi, 1st edn. 1995)

authorised as aforesaid. Similar are the provisions relating to cognizance under Sections 43 and 19 of the Air Act, and the EPA, respectively.

The Pollution Control Boards have powers to initiate action against the polluters. However, these Boards are found till the recent past been functioning as record-keepers maintaining statistics regarding pollution and only during the last few years these Boards have taken some initiatives to protect and improve the environment after being directed by the courts. It is a matter of surprise that even where pollution was easily visible or was being felt for, the Boards acted as silent spectators till the Court intervened.

The procedure for filing complaint should be simplified. The requirement of giving notice to the board or to the Central Government in case of offences under the EPA should be done away and instead of this, it should be provided that every person should have a right to directly file a criminal complaint against the offender in accordance with the procedure laid down in Section 200 of Criminal Procedure Code (Cr.P.C.). However, as a matter of safeguard against malicious prosecution it can be provided that the court shall call for a report from the Pollution Control Board concerned before summoning the accused. But at the same time it should also be provided that the complainant shall have the right to challenge the report of the Board by way of evidence.

There is also another special provision to prevent public nuisance to take immediate action. But the Magistrate's power to act under Section 133 is not affected by them.[18] Even the WPA has not taken away powers of the Sub-Divisional

[18] Shaukat Hussain v. SheodayalSaksaina, AIR 1958 MP 350

Magistrate under Section 133 Cr.P.C. The Sub-Divisional Magistrate has power to close a factory causing pollution, when appreciation certificate from the Pollution Control Board is not produced.[19] In Lakshmi Cement v. state[20] it was held that Section 133 Cr.P.C. does not automatically or impliedly get repealed after the commencement of the Air Act. So proceedings under Section 133 Cr.P.C. are not barred. But while passing an order under Section 133 the Magistrate should be very keen about the complaint and also should see the fulfillment of the required conditions as stipulated. Otherwise the order passed by such Magistrate can be held illegal as it was in Chabila Roy v. State[21]where the Magistrate on receiving a complaint regarding the running of a "khatal" did not examine the petitioner and the local people about the physical discomfort or health hazard on account of the "khatal", passed an order. It was held that the order was illegal being in variance with express provisions of Section 133 Cr.P.C. Justice Sekri, C.J in Keshwanand Bharti v. state of Kerala[22] viewed that the court must interpret language of Art. 51 of Indian constitution. The Bhopal Gas Tragedy is considered as one of the worst manmade Disaster, the world witness one of the most tragic accidents in the history of the chemical industry. About 40 tons of highly toxic methyl isocynate escaped from Union Carbide's Chemical Plant in Bhopal into atmosphere on the midnight of December 2, 1984. In the world history several death, disability and distress happened due to negligence of the plant.

Supreme Court finally secured a compromise between Union Carbide Corporation (UCC) and the Indian Government under which UCC agreed to pay US

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[19] Nagarjuna Paper Mills Ltd. v. SDM and RDO, 1987 Cri LJ 2071 (AP)

[20] 1994 Cri LJ 3649 (Raj)

[21] 1983 Cri LJ NOC 203 (Cal)

[22] (1973) 4 SCC 225

$470 million in full and final settlement of all present and future claims arising out of Bhopal disaster. The Court was of the view that there was a need to evolve a national policy to protect National interest from such hazardous pursuit of economic gains.[23] The Decision of Apex Court in the case of M.C.Mehta v. Union of India[24] can be considering as a historical step towards the proper management of hazardous wastes and evolved the principle of 'absolute liability' that results the Central Government to frame a national policy regarding such issues.

In the case senior advocate M.C.Mehta filed a writ petition against Sri.Ram Fertilizer Enterprises, a month before the leakage of oleum from the Sulphuric Acid plant on 4th December 1985, with a prayer that should be shifted from thickly populated area of Delhi to some other place. But unfortunately the incident had affecting the several lives of the people of that area. The Apex Court innovate the principle of 'no-fault' or 'absolute liability'. At that time the principle of 'strict liability' was followed in India which had evolved in Rylands v. Fletcher[25]. It was the brilliant observation of the Bhagwati, J., that Indian courts need no longer follow the principles evolved by the British Courts. Subsequently the court evolved principle of 'no-fault' or 'absolute liability'. The principle covers the industrial activities that harm or is likely to be harm to the health and safety of person working in the industries or resides in surrounding areas. If any industry is found to hold liable absolutely then there should not have defense for reasonable care or negligence on others part. The

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[23] *Union Carbide Corporation v. Union of India,* (Bhopal Gas Leak case),

[24] AIR 1987 SC 965.

[25] (1868) LR 3 HL 330

court held that the hazardous industries must be shifted out of Delhi and directed the central government to adopt a national policy to deal with hazardous wastes.

Simultaneously, India has ratified[26] the Basel Convention that gave rise to the need to pass national legislation as its commitment made under the convention. On the other hand as a result of the decision of the SC in the case of M.C. Mehta the central government has had to show its hard view toward the word and notified the Hazardous Waste (Management and Handling) Rules 1989[27] in July 1989 empowering under the enabling provisions of EPA of 1986.

But the rule was not free from lacunas as a result of which the MoEF&CC appointed an expert committee headed by Dr. R.A. Mashelkar to verify the status of the problem and required changes in the existing rule need to be amended. The committee recommended for restriction on import and export, characterization of hazardous wastes as well as technologies required for environmentally sound management of hazardous wastes. Finally, the central government in compliance with the recommendations has notifiedthe Hazardous Waste (Management & Handling) Amendment Rules, 2000[28]

At that time many cases of illegal importation of hazardous wastes has been growing in India. The problem has been brought to light when the director of the Research Foundation for Science Technology and Natural Resource Policy, Delhi has

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[26] India signed the Basel Convention cm 15 March 1990, ratified it on 24 June 1992 and acceded it on 22 September 1992.

[27] The Rule was published vide S.O.594(E), dated 28th July,1989.

[28] The Rule came into force on 6 January 2000.

filed a Writ Petition[29]. After considering the gravity of problem the Supreme Court of India constituted a High Powered Committee with the chairman prof. M.G.K. Menon comprising of 12 members in October 1997. After examined the nature and quantum of hazardous wastes management and handling the committee has submitted its report to the MoEF&CC. After considering the recommendation of the committee the Hazardous Waste (Management & Handling Rules), 2003 was notified by the central government. At the present time the rule amended for several times and its every amendment are not far from the court's sight. It is need of hour to have serious implementation of the regulations; and conducting recycling, reuse and final disposal in an environmentally sound manner. The government and industries should comply with the judgment and directions of the judiciary to look at the safety measures for hazardous wastes management.

3.2 Environment Protection Act, 1986[30]

Stockholm Declaration of 1972 which is called the "Magna Carta" of environment protection and its development. After the 1972 UN Conference on Environment and Human Development at Stockholm, the Indian government incorporated Articles 48A, Article 51A (g), and 253, to the Indian Constitution. Article 252 empowers parliament to enact on state subject if two or more state make such a request as a result of this the Water (Prevention and Control of pollution) Act 1974[31] came into force. On the basis of these Articles, parliament enacted the Air

[29] Writ Petition No.657 of 1995 filed in the Supreme Court.

[30] The Act was enacted by the parliament of India and came into force on 19th November 1986.

[31] The Act was come into force on 23rd March 1974 to prevent and control water pollution.

(Prevention and Control of Pollution) Act, 1981[32], and the Environmental (Protection) Act of 1986[33] (EPA). The EPA was enacted for wider purpose of protection and improving the human environments a goal laid down by the conference. Certain environmental laws were in force in India well before the Stockholm Declaration of 1972, such as the Indian Forest Act etc. Besides, this action could also be taken under Sections 268 and 290 IPC against public nuisance relating to environment.[34]

The EPA imposes primary prohibition for not to harm to the environment as "No person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutants in excess of such standards as may be prescribed."[35] It empowers the central government to regulate comprehensive environmental legislation, including rules relating to storing, handling and use of hazardous waste and all forms of waste and to tackle specific problems that may arise in different regions of India. The Act provides that "No person shall handle any hazardous substances except in accordance with such procedure and after complying with such safeguards as may be prescribed."[36] where any environmental damage occurs is foreseen to occur due to any accident or other unforeseen act or event, there is a duty on the person who is either responsible for the discharge or the place where such discharge occurs to prevent or mitigate the environmental pollution

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[32] The Act was come into force on 16th May 1981 to control and prevent air pollution.

[33] The Act was enacted by the parliament of India and came into force on 19th November 1986.

[34] P.M Prasad, 'Environmental Protection-The Role of Liability System in India' in Economic & Political Weekly vol.no.39, issue no.03 pp.257-269 at 259

[35] Section 7 of the Environment Protection Act 1986(Act 29 of 1986)

[36] Section 8 of the Environment Protection Act 1986 (Act 29 of 1986)

caused as a result of such discharge. He must immediately inform the authorities or agencies. If called upon, he shall be bound to offer assistance to said authorities.[37]

Environmental disasters prodded the Indian government into passing comprehensive legislation, including rules relating to storing, handling and use of hazardous waste.The objective of the EP Act is to protect and improve the environment in the country. It is an umbrella legislation that consolidated the provisions of the Air and Water Acts. The Act empowered the government to make rules and regulations to fulfill its objectives. Under this Act and its rules the government takes all necessary steps, such as the formulation of national environmental standards, prescribe procedures for managing hazardous substances, regulate industrial locations, establish safeguards for preventing accidents, and collect and disseminate information regarding environmental pollution. It also empowered the government to set up parallel regulatory agencies to protect parts of the environment and to delegate its powers to such an agency. For example, the government could set up an agency to protect coastal resources.

It also contains an embodiment of the 'Polluter-Pays'[38] principle, the concept of 'continuing punishment' is an important one, since it establishes harsh penalties for the state of continuation. The concept of 'lifting of the corporate veil' in the legislation stated that where an environmental offence is committed with the consent or connivance of any director, manager or secretary or other officer of the company, then owing to such involvement – the above mentioned persons may also be held liable for

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[37] Section 9 of the Environment Protection Act 1986 1986 (Act 29 of 1986)

[38] Section 9(3) of the Environment Protection Act 1986(Act 29 of 1986)

offences committed by the company. This is an important concept in environmental law and company officials should be aware of the fact that the mere fact of the offence being committed in the name of the company is not enough to exclude them from being prosecuted.[39] The law provided for civil and criminal penalties for the violation of its pollution standards. For example, it imposes a penalty for non-compliance of standards with a fine of up to Rs 1, 00,000 or imprisonment up to five years, or both. Immediate compensation has been paid to the victims of industrial accidents[40]. The Public Liability Insurance Act, 1991 focused to provide for the payment of immediate compensation to the victims of industrial accidents.

3.2.1 The Environment (Protection) Rules, 1989[41]

The Environment (Protection) Rule 1986[42] (EPR) came into force on 19 Nov. 1986. The Rule seeks to carry out the provision of EPA, and to meet various specific problems in relation to the protection and improvement of the environment. The Rules specify the standards for emission or discharge of environment pollutant from industries, operations or processes. However, the Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) can stipulate more specific standards for any specific industry, operation or process. The Rule provides those safeguards, including an opportunity of being heard. However, when the central government is of the opinion that in view of the likely hood of grave injury to the environment, it is not expedient to provide an opportunity to file objection against the

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[39] Section 16 of the Environment Protection Act 1986(Act 29 of 1986)

[40] Under the Product Liability Insurance Act, 1991

[41] Empowering under section 6 and 25 of the EPA, the central government published vide S.O.844(E) dated on 1986.

[42] *Ibid.*

proposed direction, it may, or reason, recorded in writing, issue direction without giving such an opportunity.

Specific provision is made in EPR for handling hazardous substances a hazardous substances is defined not only as a substance, but also as a preparation, which by reason of its chemical or physio-chemical properties or handling, is liable to cause harm to human beings, other living creatures. Prior to permitting the handling hazardous substances in a area, the central government has to take into consideration hazardous nature of the substances and its polenta to damage the environment, human being, other living creatures, plants and property. The fact that the government has to apply its mind to the availability of substitute or of the state of technology for developing a sate substitute and the gestation period necessary for gradual introduction of a new substitute is a very significant provision in the EPR, the guarantees consideration of all relevant matter before taking decision on prohibition and restriction on the handling of hazardous substances.

The provision takes into account emergency situation when quick action is needed. The rules lays down the factors, which the central government should consider while it prohibits or restrict the location of any industry, or carrying on of process and operation in different area, the topographic and climate feature of the area, the biological diversity, which, in the opinion of the central government, needs to be preserved, environmentally compatible land use and proximity to human settlement, are some of the significant factors to be considered. A notice with full detail of the proposed prohibition or restriction could be published, and objection filed within 60 days in writing.

The time limit within which the central government should consider these objections was fixes originally as 120 days. However, the time limit was changed by several amendment notifications, and ultimately fixed at 286 days. The longer period of opportunity is neither reasonable nor in consonance with the objective of protection an improvement of the quality of the environment. The safeguards provided for taking samples and sending them for analysis are recognition of the right to a fair process. The Rule also lays down the functions of environment of laboratories qualifications of government analysis, and the manner of giving notice. The discharge of the environmental pollutants in excess of prescribed standards as of grave concern. That is the reason why a person in charge of the place is bound to give information of the actual occurrence apprehension of occurrence. The Rule specifies the authorities to whom this information has to be given. The officer in charge of emergency or disaster relief operation in a district the central pollution control board or a state pollution control board, or its authorised regional officer, or any authorities or agencies in the schedule to the Rules.

The EPR made the submission of an environment audit report on or before 15 may of every year is compulsory. The audit report, subsequently worded as audit statement is to be filed on or before September every year to the state pollution control board. Every person carrying on an industry, operation or process requiring consent under the water Act or air Act or authorisation under the Hazardous Wastes (management and handling) Rules 1989[43] (HWM) has to submit this report for

[43] Empowering under section 6,8 and 25 of the EPA, the central government has notified this rule to regulate all kind of process relating to the hazardous waste in the country.

financial year, ending 31 March, to the state pollution control. Some of the remarkable benefits of audit include grater industry compliance with environmental law, discloser of data on waste generation, adoption of clean technology for pollution prevention, waste minimization, recycling any utilization, arrangement for offsite disposal, revealing of data on consumption of water and raw material.

3.2.2 Hazardous Wastes (Management and Handling) Rules, 1989[44]

The Methyl isocynate gas leakage tragedy of Bhopal triggered the Government of India to enact the Environment (Protection) Act 1986[45]. Since then rules increasingly have regulated the production and use, the trade and transport, and the elimination of toxic and hazardous substances and waste. Empowering under section 6, 8 and 25 of the EPA 1986, the Central Government of India notified HWM Rules 1989 to direct the occupier generating hazardous wastes to take all practical steps to ensure that such wastes are properly handled and disposed of without any adverse effects which may result from such wastes. The rules subsequently amended for many times from time to time for effective management of it so that harmful affect can be reduced. The rules established responsibilities of occupier, generator and other stakeholder that are directly or indirectly related to the activities.

The rules lay down duties and responsibilities of various authorities such as Ministry of Environment, Forest and Climate Change[46] (MoEF&CC), Central

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[44] *Id.*

[45] *Supra note* 33

[46] The MoEFCC was formed in 1985, to administer overall aspect of the environment and forest.

Pollution Control Board[47] (CPCB), State Pollution Control Board[48] (SPCBs) etc. touching across almost every aspect of hazardous wastes management. In case of environmental damages arising due to improper handling of hazardous wastes including accidental spillage during generation, storage, processing, transportation and disposal, the unit shall be liable to implement immediate response measures as per the "Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Wastes and Penalty" published by CPCB. [49]

Environmental Protection Rules, 1986 empower the formulation of standards for emission of environmental pollutants. In general the rules were formulated by the government of India for working and conduct of business under the EPA, 1986. The formulated rules are: the Hazardous Waste (Management and Handling) Rules of 1989, the Public Insurance Act of 1991 (Amendment, 1992), and Biomedical Waste (Management and Handling) Rules of 1998, etc. The established environmental rules and regulations are enforced by the concerned administrative authorities. In addition, they act upon the direction of the courts and PCBs. The PCBs try to prevent environmental degradation through formulation of standards, issuance of consent for establishment and operation and closure orders to rogue industries.

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[47] It was formed on 22 September 1974 for implementation of plans and programmes relating to the environmental pollution.

[48] It was constituted at State level for implementation legislations, guidelines and standards provided by the CPCB, MoEFCC.

[49] Central Pollution Control Board, Report: *Standard Operating Procedure and Checklist of Minimal Requisite Facilities for utilization of hazardous waste under Rule 9 of the Hazardous and Other Wastes (Management and Transboundary movement) Rules, 2016* (Ministry of Environment, Forest & Climate Change, Government of India, June 2016)

The parent treaty, the Basel Convention has been ratified by 183 countries. Government should pay heed to the fact that the European Union has implemented the Basel Ban in its Waste Shipment Regulation. It has made it legally binding on all EU member states. Norway and Switzerland too have implemented the Basel Ban in their legislation. The H&OWM Rules, 2016 should be revised to reflect Government of India's intention to ratify the Ban Amendment to Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. India missed the opportunity of ratifying it before the Twelfth Conference of the Parties held in Geneva during 4-15 May, 2015. Under the influence of countries like USA, Germany, U. K., Australia, Canada, South Korea and Japan in general and U.S. Chamber of Commerce, the world's largest business federation representing the interests of more than 3 million businesses, International Chamber of Commerce, US Institute of Scrap Recycling Industries and Bureau of International Recycling, the international trade federation representing the world's recycling industry, India's Hazardous waste Rules have faced continued dilution. These countries interest never wished Convention and compliant Rules to come into force.

As part of Clean India Mission, Central Government should to regain its original stance of being a strong opponent of the international waste trade and an ardent supporter ban on toxic waste exports from the world's richest countries to less industrialized ones. An Indian delegation said "You industrial countries have been asking us to do many things for the global good — to stop cutting down our forests, to

stop using your CFCs. Now we are asking you to do something for the global good: keep your own waste."[50] Government of India should recollect its earlier position.

Government of India was firm even at the Second Basel Convention Conference of Parties, in March 1994 and advocated ban on all hazardous waste exports from the world's most industrialized countries, the members of the Organization of Economic Cooperation and Development (OECD) to non-industrialized countries like India. Government should not delay its ratification of Ban Amendment anymore. The notification of New Hazardous Waste Rules provides a chance to recover the lost ground and re-adopt its 1992 position and ask the rich countries to " keep your own waste" for global common good.[51]

While basic industrial and environmental regulations are uniform across India, states can differ in their implementation of regulations. Environmental standards and regulations are developed at the central level, and their implementation and enforcement is the responsibility of the state pollution control boards. In a democratic polity such as India, differential enforcement of regulations reflects, in different levels of community activism. The need of the hour is to have stringent implementation of the existing Rules, which will lead to proper collection mechanism, sound recycling technologies, adequate and scientifically designed disposal sites. Sustainable Development concerns or enabling recovery and reuse of useful material from

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[50] A. Bhattacharja, Head of the Indian delegation who pleaded with industrialized countries to stop exporting hazardous waste, at the First Conference of Parties to the Basel Convention in Piriapolis, Uruguay, from 3-4 December, 1992.

[51] Gopal Krishna, "New Hazardous Management Rules makes India into a land of landfills for foreign hazardous and other wastes" *TWA. available at*www.toxic.swatch.org visited on 11/05/2017

hazardous waste and thereby reducing the waste for final disposal are certainly a welcome thought.

3.2.3 Amendments to the H&OWM Rules, 2016

1. The first Amendment

The first Amendment rule was notified on 6th July 2016, which may be called Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Rule 12(6) of the H&OWM Rules, 2016 provides for no import permission of Hazardous and other wastes specified in schedule VI. In this amendment after rule 12 sub-rules (6) following sub-rules has been inserted:

6A. this sub-rule permitted the import of solid plastic waste specified at column (2), against Basel Number B3010 in schedule VI to the units in Special Economic Zones as notified by the Central Government and excluded post consumer wastes. in the schedule III of the rules the word 'import permitted in the country' and 'domestically manufactured ' are substituted as "import permitted in the country to the actual user or trader in accordance with the documents required and verified by the custom authority as specified under schedule VIII of these rules. The Policy for free trade for multifunction print and copying machine to be reviewed once the MFDs are domestically manufacture.'' Furthermore, in schedule VI after the entries in column (2) against Basel Number B3010, "import is permitted to the units in Special Economic Zone" has been inserted.

2. The second Amendment

The second amendment was notified on 28th February 2017, which may be called Hazardous and Other Wastes (Management and Transboundary Movement)

Rules, 2017. This amendment inserted “export oriented units” after the words “special economic zone” in rule 12, sub-rule 6A. In schedule III Part B after B3 the word “B3010 solid plastic waste polymethyl methacrylate” is inserted by this amendment. The word “polymethyl methacrylate” is omitted in schedule VI against Basel Number B3010 in column (2) and the word “export oriented units” is inserted after the word “special economic zone”.

3. The third amendment

The third amendment rule has been notified on 11 June, 2018 and that may be called Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rule, 2018. In schedule III part D against Basel No. B1110 in column (2) the wastes description of used electrical and electronic assemblies imported for testing, research and development project work or software technology park of India, electronic hardware technology park, export oriented units, biotechnology park with investment of Rs. 50 crore in a research and development, furthermore used plant and machinery having a residual life of at least five years for manufacturing of electrical and electronic items by the electronic industries has been inserted by this amendment. Moreover, list of the documents for the above mentioned wastes descriptions, likewise duly filled form no.6, details of previous import, chartered engineer certificated or certificate from exporting country, an acknowledgement copy of annual returned filed with concerned SPCB for import in the last year, a certificate of investment of Rs. 50 crore has been inserted in schedule III part D, against Basel No.B1110 in serial no.4 after item (d).

4. The Fourth Amendment

The fourth amendment rule has been notified on 31st January, 2020 may be called the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2020 which replaces clause(a), (c) and (d) of sub-rule (2) of rule (5) as follows:

Clause (a) of H&OWM Rules, 2016 ensures recognition and registration of workers involved in recycling, pre-processing and other utilization activities, which is replaced with ensures recognition and registration of workers involved in generation, handling, collection, reception, treatment, transport, storage, reuse, recycling, recovery, pre-processing, utilization including co-processing and disposal of hazardous wastes. This amendment includes all the workers which is a commendable step.

Clause (c) of H&OWM Rules, 2016 undertakes industrial skill development activities for the workers involved in recycling, pre-processing and other utilization, which is replaced with undertakes industrial skill development activities for the workers involved in generation, handling, collection, reception, treatment, transport, storage, reuse, recycling, recovery, pre-processing, utilization including co-processing and disposal of hazardous wastes.

Clause (d) undertakes annual monitoring and to ensure safety and health of workers involved in recycling, pre-processing and other utilization which is replaced with undertakes annual monitoring and to ensure safety and health of workers involved in generation, handling, collection, reception, treatment, transport, storage,

reuse, recycling, pre-processing and other utilization including co-processing and disposal of hazardous wastes.

The new Rules of 2016 empower the MoEF&CC to be the nodal ministry to deal with the transboundary movement of the hazardous wastes in accordance with the provisions of these rules.[52] It provides for the import of hazardous and other wastes from any country only for the recycling or recovery or reuse.[53] This declaration of the rule promotes transboundary movement of such wastes. Therefore it is evident from such provisions of the new rules are contrary to the objectives of the convention in the sense of minimization of quantity of hazardous wastes, dispose as close to the sources of generation, reduction of transboundary movement of hazardous wastes.

Such permission for import of hazardous waste for recycling or recovery or reuse is an attempt to define waste as non-waste. The import and export of the hazardous and other wastes specified in Schedule III, shall be regulated in accordance with the conditions laid down in the said Schedule.[54]This is an admission that trade in hazardous waste will happen in a business as usual manner. Rule 13(2) provides for prior inform consent procedure for import and export of part A, B and prior written permission of the Central Government for import and export of part C of the Schedule III. Rule 13 provides that documents for specific kind of hazardous wastes shall be specified by the MoEF&CC. Furthermore, it is evident from frequent amendments that

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[52] Clause 11 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

[53] Clause 12(2) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

[54] Clause 13 (1) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

the importer may apply for sale or for any other use of particular hazardous wastes unable to comply with the condition imposed for importation. The government is also interested in promoting the as unusual manner. It is observed that such provision intended to make india into a toxic territory. The import of hazardous and other wastes shall be limited to one-third of the total annual processing capacity of the unit, as specified in the authorization.[55] This is also an admission of support for importation of hazardous and other wastes.

3.3. Role of Pollution Control Boards in control and Management of hazardous waste in India

The pollution control Boards have played pivotal role for the control and management of the hazardous waste within the country. The Central Government may by notification in the official gazette constitute a Central Pollution Control Board to exercise the powers conferred on and perform the function assigned to it under the Act[56]. It exercises many powers and functions of promoting, preventing and controlling of water, air and environment pollution in different States within the country. It may advise the central government on any matter relating to the environment protection. It may co-ordinate the activities of the state boards and provides technical assistance and guidance to the boards. The State Government may by notification in the official gazette constitute a state pollution control board to exercise the power conferred and performed the function assigned on it under the

[55] Clause 13 (3) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016,

[56] Section 3 of the WPA.

Act[57]. It may advise the state government to any matter pertaining to the prevention, protection and control of environment protection. It grants authorization for activities like collection, treatment, storage, recycle, reuse and disposal of hazardous wastes within the country.

Pollution control boards in India are the enforcing authority to regulate all law relating to the environment besides the HC and SC. In 1997, the SC constituted a High Power Committee (HPC) to look into the allegation pertaining to the violation of basel convention's provisions and submit the report to the court. The committee founded the alarming situation and submitted its report in 2001. Considering the gravity of the problem the SC banned the importation of all hazardous wastes came under the Annexure VII of the convention. The court has banned 76 items, but India has banned only 29 items under the HWM Rules of 1989. It implies that hazardous wastes freely import in India if it satisfies that it is for reuse, recycle and recovery. The court strongly ordered for incorporation of banned list under the convention, instead of this the H&OWM Rules, 2016 leaves room for import of hazardous wastes.

After analyzing the H&OWM Rules, 2016 the court ordered that the new rules should be implemented in India and the industries not having valid authorisation could not been operating in India. The boards must have details of hazardous wastes generation and dispose record with it. The court ordered that no authorization and permission would be given by the authority for import of banned wastes[58]. The Court ordered that action against all concerned shall be taken by the concerned authorities in

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[57] Section 4 of the WPA.

[58] Research Foundation for Science Technology National Resource Policy v. Union of India and ors Writ Petition No.1995 SC 5 May 1997.

accordance with law[59]. However, in many cases, the State Pollution Control Board has granted authorisation without conducting mandatory inspection about the possession of adequate facility for treatment, storage and disposal of hazardous wastes by the units. It is evident in the case of Mr. M.C. Mehta, where the petitioner M.C. Mehta filed a writ petition for discharging toxic industrial effluents into the Ganga river at Kanpur and Calcutta that makes water become unfit for all purposes. It is found that the industries have not installed treatment plant since its establishment. The Court directed the tanneries to install treatment plants within six months and ordered the U.P. Pollution Control Board to enforce the orders of the Court faithfully.[60]

The Court directed to stop functioning of hazardous industries operating in Delhi for certain period till the alternate site was arranged.[61]In the Wazirpur Industrial Estate, Shahadara-Maujpur Industrial Estate and Grand Trunk Road in Delhi are dumping their heavy metal rich effluent and acids into open pools and drain. This has led to permeation of effluents into water table and has contaminated ground water, which is used by local residents as potable water supply.[62] The pollution control board remained silent regarding the matter. Furthermore another incident happened in 1982 at Tamil Nadu when more than two thousand people affected by the dumping of untreated hazardous wastes of the cuddalore's industrial belt (State Industries Promotion Corporation of Tamil Nadu). In July 2004, the incident of chlorine leakage affected more than 200 people of West Gonnur area of Tamil Nadu. It is found that a

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[59] Ravi Raghavan, "Utilise Hazardous Waste as Supplementary Fuel; Exports" 16 *CW* 110 (2003)

[60] In M.C.Mehta v. Union of India. AIR(1988) 1 SCC 471.(Ganga Pollution case),

[61] In Buffalo Trader's Welfare Association v. Maneka Gandhi (1996) II SCC 35

[62] N.K.Uberoi, *Environmental Management*, 285 (Excel Books, New Delhi, 2nd edn.,2003)

chemplast industry has been discharging untreated effluent into the storm water drain till 1996 and most of chemicals are in open ground till 2000. It is also found that the water was available at 50-70 before established the industry but now is saline at 70 feet. Instead of repeated complaint against such activities the PCB of Tamil Nadu has not take necessary action.

It is seen that the sea and rivers in India are polluted by the notorious activities of the industries. In spite of this the regulating authorities are silent without taking necessary action against such industries. It is evident that the Kerala PCB has not takeaction against a Sulphate processing unit of Thiruvananthapuram that has discharged strong acidic effluent into the Arabian Sea[63]. In the Cauvery and Thenpennairyar coli form count as critical parameter and fall class B and C design with highly pollutant substances. Maximum pharmaceutical of south zone of CPCB are in Andhra Pradesh running without implementing online continuous monitoring system. A massive number of fish are killing in Sanga Reddy district of Telengana due to strong acidic effluent discharge from Gandihudem tank and Ayyamma tank in the vicinity of Kazipally. However no action has been taken to close down the industries by the PCBs.

The Supreme Court of India in a case ordered that “Having regard to the facts and circumstances of this case and particularly in view of the fact that thousand kilolitres of such waste lubricants are recycled for its reuse, it is necessary that all authorities including the Andhra Pradesh State Pollution Control Board must strictly comply with the provisions of the said Rules. It further directed that in the event if any

[63] Central Pollution Control Board, RD(S) Bengaluru: Annual Report 2017-18. P 12

person is found to be unauthorized handling such hazardous waste products and or if any person authorised therefore violates any of the terms and conditions or directions or any law operating in the field, the State Pollution Control Board should take strict view of the matter and shall take steps for cancellation of their authorization"[64].

The styrene gas leak from LG Polymers on May, 2020 shows gross negligence of the plant as well as of the PCB of Andhra Pradesh. The NGT constituted a five member committee to conduct a probe. The committee found that the styrene needs to be circulated constantly to keep its temperature under control. The company did not have tertiary butyl catechol to lower the temperature inside the plant. The plant has been operating without requisite environmental clearance from 1997 to 2019, then how the PCB of Andhra Pradesh issued consent to the plant. Therefore, the State Pollution Control Boards are directed to inspect the hazardous waste generating industries at regular intervals while renewal of licenses, and if the industry is violating any norm, the license granted must be cancelled.

The State Pollution Control Board or Committee is vested with a duty to maintain a register containing particulars of the conditions imposed under the Rules. The SPCBs/PCCs have to prepare inventories of hazardous wastes and information related to its treatment and disposal based on returns filed by the occupier or the operators under the provision of H&OWM Rules, 2016. A study by P.M. Prasad is focused on the evaluation of the functioning of the PCBs to determine whether the regulatory system is effective in preventing environmental pollution in India. The

[64] *K.Purusdhotam Reddy v. U.O.I*, Writ Petition No.29629 of 1998 A.P. High Court 20 June 2001.

study reveals that the role of the board is of great importance in preventing, controlling, and abating environmental pollution in the country. The importance of introducing advance policies on restructuring of existing PCBs, establishment of competitive environment, empower PCBs to impose a fine against rogue industries, create an incentive mechanism for the personnel, reduce the revenue generation responsibility and provide financial assistance directly for the ministry of finance are need of hour. Overall, the study emphasizes the necessity of improving the functioning of the regulatory system by making necessary changes not only in substance of the law, but also in the working conditions of the PCBs so as to improve the environmental quality in the country.[65]

The SC of India has take bold step against improper management of hazardous wastes and ordered that the industry not having valid authorization under the rules will not operate and the boards must have submitted details of hazardous waste generation in India.[66] The court has repeatedly ordered that for strictly comply with provisions of the rules and take necessary action against the violator of such rules. The green tribunal in India has also played very significant role and found so many irregularities in the functioning of the pollution control boards across the country. The National Environmental Tribunal Act, 1995[67] was passed to grant compensation in case of death or any other injury caused due to the Act of environmental Pollution of anyone. The National Green Tribunal (NGT) was officially notified on 19.10,10 with its

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[65] P. M. Prasad, "Environment Protection: Role of Regulatory System in India", Vol. 41, No. 13, *E&PW*, 1287 (2006)

[66] Hon'ble Supreme Court of India WP(c) No. 657/95(order dated on 14.10.2003)

[67] The central government passed the Act to provide for strict liability for any damages caused by improper handling of hazardous substances.

Chairperson, Mr. Justice Lokeshwar Singh Panta taking charge of his office here. First Green Tribunal commences on 19/10/2010 i.e. just a day before, by passing another statute the Green Tribunal Act 2010. The National Environmental Appellate Authority was established 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.

The tribunal with the senior scientist inspected 84 industries located at Focal Point, Derabassi and found the industries are operating without valid authorization from the Punjab Pollution Control Board[68]. In U.P. the thermal power plant of Shaktinagar and Anpara area violates the provisions of rule and U.P. Vidyut Utpadan Nigam Ltd. dischaeges fly ash in the locality. The thermal power plant has failed to install CCTV and electromagnetic meter to observe discharge system as directed by the tribunal. The khadia coal mine project is seen the problem of over burden management and fly ash disposal in abundant mine. The Grasim industries Renukoot did not shifted its hazardous waste to Treatment Storage Disposal Facility (TSDF) Kanpur despite direction and warning given by the authority.[69] Shortcomings are found in the inventories furnished by the boards regarding the uniformity and completeness with respect to the total number of industries requiring Effluent Treatment Plants (ETP), number of industries without ETPs, non-compliance with effluent standards, action taken against defaulter etc. Compliance Status Report

[68] The NGT, Principal brunch New Delhi in its order dated August 28, 2018 in the case of Karnail Singh & Others vs. CPCB & Others and Jai Singh & Others O A NO.33 and 30 of 2013

[69] Progress report of the NGT Committee chaired by (Retd.) Rajesh Kumar in the case of Ashwin kumarDebuy vs. Union of India & Others in the matter of O A No. 164/2018 on the basis of the field visit of the area during 23-15 October 2018.

furnished by the state of Andhra Pradesh, Chhattisgarh, Punjab, Bihar, Maharashtra, Tamil Nadu Arunachal Pradesh, Meghalaya, West Bengal, Sikkim, Nagaland, Daman & Deo are found lack of uniformity and other State has failed to submit the report in the month of August and September, 2018.[70] Versova beach cleanup, plastic ban, swachabharataviyan are the realities that inspired the people worldwide. The government must be decisive to move from commitment to action in which people will act together to ensure healthy environment.

3.3.1 Compliance of the judgments and orders of SC and NGT

In compliance of the SC judgments in WP 657/1995 dated 06/07/2012 and order dated 30/07/2018[71] of NGT and, the CPCB constituted a monitoring committee chaired by Dr. Ajay Deshpandey to report the compliance status of H&OWM Rules, 2016. Subsequently the committee has convened five meeting from August 24, 2018 to January 7th, 8th and 9th 2019. The committee has gather information concerns in implementation of H&OWM Rules 2016 from the SPCBs followed by questionnaires and interactions with concerned agencies.

Though the NGT order dated 30/7/2018 directed for 3 months time frame for submitting of action plan for common TSDF.It is found that the TSDF, recycling units and other components are not complied with the H&OWM Rules 2016. The common TSDF at Taloja, Mumbai are found not having clear manifesto of wastes received

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[70] Step Taken Report (status as on 26-10-2018), in compliance of Hon'ble NGT Order dated 03rd October 2018 in the matter of Paryavaran Suraksha Samiti &Anr. Vs. UOI & Others (OA No. 593 of 2017). The monitoring committee constituted by the CPCB, has summarized the responses received from various PCBs/PCCs during three meeting held on 24 thAugust, 24th September and 26th October, 2018.

[71] In the case of Rajiv Narayan &Anr. Vs. U.O.I &ors. (Application no. 804/2017)

from other state and storage updating system. On the other hand, waste oil recycle unit of Vasai is suffered from congested lay out and improper safety of overall housekeeping. The process of manifest system is not explained properly and the information about the market for recovered oil is haphazard[72]. Lead battery recycling unit of Vasai uses crude recovery method for recovery of lead and residue and other hazardous wastes are send to common TSDF of Taloja. The emissions produced during recovery process like dioxin, furan and VOCs are not properly managed and control due to old type furnace.

Inspection report on existing facilities and management practices of Uttar Pradesh waste management project Ltd., visited on September 11, 2018 by team comprising of members from CPCB, GPCB and UPPCB. Uttar Pradesh waste management project Ltd. is an incinerator operated without obtaining environmental clearance and without having improve stabilization and incinerator area. Monitoring of furans and dioxin in the incinerator stack is not carried as per CPCB's norms. The trend analysis of ground water quality of the unit has not been carried since its establishment. There is no pre-processing facility for co-processing in cement kiln. It is also found that the wastes have not received from registered member. There is also a gap between the wastes generation and dispose through various means.

The common TSDF in the name of M/s Hazardous Wastes Management Project at Dundigal, Quthubullapur and Rangareddy District (Telangana) are not designed and layout of the facility in accordance with the CPCB guidelines. Capacity

[72] Visit report to Mumbai on September 06-07 2018 by the monitoring committee constituted by CPCB in compliance with order dated 30/07/2018 of Hon'ble NGT, principal bench, New Delhi. Annexure VIII

of the pond used for storage of wastes water, equipment shelter, emergency exits are needed to be improved. The hoods installed over the pit, shredder, blendor and conveyor are not efficient to arrest fugitive emission[73]. The wastes mixing processed is done by the worker which is a dangerous practices. The advanced equipments such as screw conveyor, pug mill can be used to avoid exposure of workers to hazardous wastes.

M/s Mylan Laboratories Ltd. of Gaddapotharam village, Jinnaram Mandal, Sangareddy district in Telangana is a hazardous wastes generating unit that generates various categories of hazardous wastes. Some category of hazardous wastes generated more than consented capacity and some are not reported in the annual return. Anomalies are found in the data of generation of hazardous wastes and authorised quantity of hazardous wastes, therefore rule 20(1) of the H&OWM Rules of 2016 is not maintained in Telangana. Furthermore, guideline has not been prepared for detoxification hazardous wastes by the CPCB as required under Rule 9 of H&OWM Rules 2016. Inspection report of adequate facility of the unit has not been attached with the authorisation documents.

M/s GEPIL Infrastructure Pvt. Ltd. Rakamcharla (V) Pudur (M), Rangareddy district in Telangana is a pre-processing facility for analysis of hazardous wastes. The hazardous wastes stored for pre-processing are not properly labeled as required in Rule 17 of the H&OWM Rules 2016. Therefore, there may risk of accident while

[73] Visit report to Hyderabad on September 18-19, 2018 by the monitoring committee constituted by CPCB in compliance with order dated 30/07/2018 of Hon'ble NGT, principal bench, New Delhi.

blending or mixing the hazardous wastes[74]. It is also found that fumes were coming from out of drams. Liquid hazardous wastes are lying on the floor for mixing without having proper shed. Inspection report of the Telangana SPCB for possessing adequate facility for storage, collection, packaging and utilization has not been attached with the authorization document under Rule 6(3) of H&OWM Rules 2016. Instead of this the board grant authorisation on 06/02/2018. The authorisation has been granted without stipulating the restricted categories and quantities of pre-processing hazardous wastes. The Telangana SPCB has failed to show functioning of the duties under H&OWM Rules of 2016 as per format sought by the monitoring committee. The web portal developed by the board is used only for movement of wastes and liquid effluent send to the common TSDF and CETF, and date wise record of wastes generation and stored have not been incorporated.

Ramkamal Chemical Pvt. Ltd., Shiv Shakti Oxalate Pvt. Ltd. and Kurkumbh MIDC are the spent solvent recovery units and spent solvent is a major hazardous wastes produced from industrial processes. Solvent recovery units are actual user as per H&OWM Rules 2016, therefore proper handling is required before it is sent for recovery or recycles. The units are visited by the monitoring committee along with officials of SPCB Maharashtra. These units are operating without valid authorization and passbook. The manager of the plant has not aware of SOP guideline prepared by CPCB and stored spent solvent from different parties without following scientific measures like proper labeling of drums and details of drums disposal etc. The spent

[74] *Id.*

solvents are received from other state without following manifesto system[75]. The heavy emissions like VOC are found in the premises. Therefore it is crystal clear that the spent solvent recovery units are not complied with the H&OWH Rules 2016. The CPCB should immediate prepared SOP to ensure safe handling and storage of spent solvent by the recovery units. The SPCBs of respective States shall prepare annual inventory of solvent recovery units and conduct interaction with the industries regarding awareness programme.

M/s Arya Alloys Pvt. Ltd., M/s Bhiwadi Jal PradusanNivaranTrust and M/s. India EcoventureTyre Recycling Pvt. Ltd. of Alwar district, Rjasthan are visited by the Monitoring Committee. M/s Arya Alloys Pvt. Ltd produces lead alloy and refined lead, lead sub oxide. The unit stored generated lead ash at open area and lead ingots are stored at premises without covered and labeled properly as per Rule 17(1) of H&OWM Rules 2016. The unit could not show manifest of hazardous wastes sent to the TSDF 2017-2018. The daily record of hazardous waste generation and dispose under Rule 20(1) of H&OWM Rules 2016 has not been maintained. The process of flow chart, material balance for production of lead, relationship between lead slag produce and lead scrap utilized are not established[76]. Though the unit has installed effluent treatment plant but it is in operative till date.

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[75] Visit report to Aurangabad on December 06-07, 2018 by the monitoring committee constituted by CPCB in compliance with order dated 30/07/2018 of Hon'ble NGT, principal bench, New Delhi. Annexure XI

[76] Visit report of the Recycling processing units/CETP in Bhiwadi, Rajasthan, as per decision of Monitoring Committee constituted by CPCB vide order dated 09/08/2018 of the Hon'ble NGT (In the matter of O.A.no.804/2017: Rajiv Narayan &Anr. Vs. U.O.I &Ors. Annexure XII

M/s Bhiwadi Jal PradusanNivaranTrust engaged in treatment of industrial waste water and domestic waste water in a common effluent treatment plant. It is observed that the unit has generated sludge during neutralization of spent acid more than authorised quantity. The daily record of sludge generation and sending for co-processing is not recorded as per Form 3 prescribed under Rule 20(1) of H&OWM Rules, 2016. The unit has also generated other hazardous wastes which are not covered in the authorisation issued by SPCB of Rajasthan.

M/s. India EcoventureTyre Recycling Pvt. Ltd. produces rubber crumb and obtained authorisation for collection, generation, incenaration and storage of hazardous wastes in the premises valid till 30/11/2023. But is found in the visit report of the monitoring committee that the unit is not in operation and purchased by someone vide register deed dated 19/05/2017. It is also observed that the unit is obtained license for import of used rubber scrap vide letter dated 06/04/2018 by MoEF&CC based on the consent to operate the recycling unit from Rajasthan SPCB vide letter dated 20/03/2018. Therefore, the MoEF&CC shall investigate the matter of issuance of import permission as the unit is not in operation at the time of granting of license and take necessary action as per H&OWM Rules, 2016.

The monitoring committee visited M/S Hindustan International Pvt. Ltd. at Ekalbara and M/S Mayur Dye Chem Intermediates Ltd. at Karkhadi of Gujarat are identified by the GSPCB to remediate the contaminated sites. The M/S Hindustan International Pvt. Ltd. is identified as it contaminated the area due to unscientific storage of hazardous wastes in the premises that lead to the ground water contamination. Although, the unit constructs secured landfill but it is not well

equipped which easily leachate into the ground water.[77] Recently, the unit takes major step to improve the infrastructure likewise establishment of well equipped capped secured landfill sites to prevent the rain waters to infiltrate into the hazardous wastes and into the contaminated ground water.

M/S Mayur Dye Chem Intermediates Ltd. at Karkhadi of Gujarat manufactures H-acid and stored gypsum and other sludge in an unscientific manner in the premises that leads to contamination of ground water. The pump and treatment system for abstraction well must be dug in a stipulated depth likewise 20, 50, 80 m respectively to decontaminate the ground water. The quantum of flow pumped out at different depths must be measured appropriately by installing rot meters. The pilot scale plant is a viable solution to study on the fenton oxidation system using H2O2 to remove colourand COD from the waters pump out. The plant must use RO system to treat the oxidized wastes water and must pay attention to safe disposal of the reject stream which contains high TDS in the concentrated effluent. Contamination of ground water can be reducing by constructing a concrete line covered shed to store the gypsum sludge at the time of co-processing. It is also found from the record that the industries are not operating in a honest manner.

Enforcement of judicial orders is rarely without its obstacles, the government has taken no steps in the years after the court order to implement the order to clean up the damage done to the river and property, notwithstanding clear directions from the

[77] Visit report to remediation of contaminated sites along ECP channel in Baroda Gujarat by the monitoring committee constituted by CPCB in compliance with order dated 30/07/2018 of Hon'ble NGT, principal bench, New Delhi. on the 24th December 2018. Annexure III

court[78]. The NGT in the hearing dated 05/12/2018 in the case of Research Foundation for Science Technology and Natural Resource Policy vs. U.I.O& Others ordered that the monitoring committee constituted under vide order dated 30/07/2018 by the CPCB has sought time and has been granted further time to complete its work. Till date the researcher has not came to knowledge about the completion of monitoring committee report.

3.4 Future challenges in implementation and way forward

In 21st Century management and control of hazardous substances and waste poses a matter of great challenge in India. As a developing country the quantity of hazardous waste has significantly been increased in India at the rate of 2% to 5% per year[79]. Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh are the most of hazardous waste generating places in India.[80]. Hazardous wastes released from Fertilizer, pesticides, petroleum, pharmaceutical, chemical, paint and dye, asbestos industries are contained complex compound, cyanides and toxic substances, which causes harm both environment and human health. The waste generated by households, hospitals, industries and its improper disposal creates health hazardous.

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[78] Global Judicial Handbook on Environmental Constitutionalis, 3rd edn. 2019(Law Division UNEP,Nairobi)p.71.available at:https://www.unenvironment.org/reso…(Visiated on April 24,2020)

[79] According to a study on "Waste Management in India-Shifting Gears" by Association of Chamber of Commerce and Industry of India and pricewaterhousecoopers. The study said that about 10 to 15 per cent of wastes produced by industries are hazardous. *Available at*: https://www.swacchindia.ndtv.com (Last Modified May 26, 2017).

[80] The State/UT – wise status of HWG in the country (As per information provided by SPCBS/PCCs). *available at:* cpcb.nic.in./uploads/projects/hazardous-waste/updated inventory-HW generation pdf. (Visited on January 29, 2019).

There is growing evidence of dangerous levels of pollution of soil, air, water in many parts of India that results in major and undesirable disturbance to the ecological balance of the biosphere, destruction and depletion of irreplaceable resources; and gross deficiencies harmful to the physical and mental health of human being. Due to the rapid growth of industrialization environment imbalance causes forefront of our intention. The main cause of increasing amount of green house gases i.e. carbon dioxide(co_2), methane (ch_4), nitrous oxide(n_2o), chlorofluorocarbon(CFC) are closely related to industrial activities. Mainly carbon dioxide is the most abundant green house gas, once released remains there for a period of between 50 and 200 years. Since 1750 its level has increased by 31 percent due to industrialization. At that time the atmospheric CO_2 concentration was 280 parts per million (ppm). By the end of 21st century it is expected that the atmospheric CO_2 concentration shall increase to a level between 540 and 970 ppm. i.e., double or triple or four times increase from pre-industrial time.[81] Direct disposal of hazardous industrial waste leads to major environmental problems in our world. Recycling of pollutant is need of hour by treatment of industrial effluents. Industrial hazardous waste contains heavy metal such as mercury, lead, copper, arsenic, cadmium, zinc, acids and alkalies. Some of which are carcinogens and it leads cancer deceases. Some of these are dangerous to marine life and destroyed micro organism.

Changes in the ecological system occur continuously through natural process or human activities but the system has to a certain extended remarkable tendency to

[81] Jagdish Chand, *Environmental Education* 112 (Anshah Publishing House, New Delhi, First published, 2007).

rebalance itself. Due to the usefulness of this system to man, man is totally dependent on environment. History is a witness to the fact that the man has been endlessly struggling to manage his environment. Earlier all work has been done without affecting the environment surrounding the man. But as the time passed, new problems started coming to the forefront and resulted in imbalancing the nature. This threat is the direct result of massive industrialization, mechanization, motorization and chemicalisation of agriculture. This results in poisoning the air, river, and soil itself. Unlimited demand and limitless consumption patterns of man have made him to forget the fact that life is sustained not only by food without clean air and water. This not only endangers on human beings and animal life but also seriously affects vegetation on earth. Major rivers and lakes in India are alarmingly polluted and have affected aquatic life also.

Destruction of forest and vegetation, denudation of land resulting changed weather condition, causing droughts, floods and extinction of rare species of plants, animals, and birds. Even the Ozone layer which is a vital protective cover of our earth has been damaging by our activities. Thus environmental degradation has reached at a stage that endangers to destroy not only environment but the mankind, along with air unfit to breathe, our water unfit to drink and many more species of animals and birds endangered with extinction.

The Constitution[82] was amended in the mid-seventies with specific provisions[83] relating to certain aspects of the environment, more especially for the

[82] Forty-second Amendment Act, 1976

[83] Article 48A and Article 51-A of the Indian constitution.

protection of the forests and wildlife in the country. Article 21 - the life and liberty of individuals is the celebrity provision of the Indian Constitution and occupies a unique place as a fundamental right for the people of India, which also includes right to pollutant free environment. The judiciary in India has played a very important role for the protection of environmental rights and has applied the principle of sustainable development while deciding the case. The judiciary has used the device of public interest litigation to provide a forum for legal action to overcome the legal standing or *locus standi* principle where the environmental right of a person is violated. The judiciary has adopted a balance approach to environment and development in recognizing environmental rights of the individual. The real impetus on implementation of Hazardous Waste Management Rules in India came only after direction of Hon'ble Supreme Court that the industry not having valid authorization under Hazardous Wastes (Management and Handling) Rules, 1989 will not operate and State Pollution Control Boards/Committees have submitted details of hazardous waste generation.[84] The Supreme Court also directed to every State Pollution Control Board to prepare inventory of Hazardous Waste in their respective State and other directions also issues for construction of treatment, storage and disposal facilities of hazardous waste.

The Intergovernmental Panel on Climate Change in its 4th Assessment Report has stated that most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in "anthropogenic greenhouse gas concentrations." A major portion of the Greenhouse Gases comes

[84] Hon'ble Supreme Court of India WP(c) No. 657/95(order dated on 14.10.2003)

from the combustion of fossil fuels in automobiles (transportation), power factories, manufacturing industries and during industrial processes. Agricultural sector, burning of agriculture residues and waste disposal are smaller contributors of such emissions. It has been widely agreed upon by a majority of climatologists that human activities are responsible for most of the warming since they enhance the Earth's natural greenhouse effect. Natural factors like solar activity and volcanic emissions have made an almost insignificant contributions Global warming over the past century.

India has a strong environmental policy and legislative framework to regulate hazardous wastes management. All the technology and invention is useless unless and until implementation of legislative framework. India has enacted enough rules and regulations regarding environmental protection but violated perhaps as often as they are obeyed. Lack of implementation would become a major challenge in hazardous wastes management. Lack of technical infrastructure, lack of awareness among the stakeholders, short term economic growth etc., are major challenges amongst other. Global technology sharing is a perfect solution but developing country like India has faced economic crisis. Growing population is a major challenge in India. Great challenges may bring great opportunities if India adopted the policy of technology change and ethic of sustainability. As flavin and Gardner argue, China, India, United States have a special responsibility to avoid a new round of self-defeating great power competition and to instead cooperate on creating a better future[85].

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[85] K.K. Jayashankar and Philip Johnson, *Environmental Law* 226(Pacific Books International, Delhi, 1st edn., 2011)

Failure of authorised governmental agencies to effective implementation of Hazardous Wastes Management Rules and non-compliance with statutory norms by polluters resulted in a big challenge in implementation of wastes rules in India. Indian statute and constitution has liberal view towards ensuring social justice and the protection of environment. India has also expected to be a trade hub in hazardous waste due to its recent developing trend. There are 62,406 nos. of hazardous waste generating industries in India that have generated 72,34, 259 metric tons of waste every year. As fasted developing states Andhra Pradesh, Gujarat, Maharashtra, Himachal Pradesh, Uttar Pradesh, Punjab, Tamil Nadu, Karnataka are the most of hazardous waste generating places in India[86].

Among others pharmaceutical, petrochemical, pesticides, fertilizer, petroleum, paint and dye, asbestos, caustic soda are the industries that generated huge amount of hazardous waste which poses risk of management, transportation and disposal of such waste. Therefore it has significantly been increased at the rate of two per cent to five per cent every year[87] situation is alarming in India as because private sector concentrating on trade and business in hazardous wastes. Absences of appropriate government policies, insufficient technical expert, non-compliance of rules and regulations by the concerned authorities and irresponsibility of hazardous wastes generating industries are the challenges before the hazardous waste management in

[86] State/UT – wise status of HWG in the country (As per information provided by SPCBS/PCCs). available at: cpcb.nic.in./uploads/projects/hazardous-waste/updated inventory-HW generation pdf. (Visited on January 29, 2019).

[87] According to a study on "Waste Management in India-Shifting Gears" by Association of Chamber of Commerce and Industry of India and price water house coopers. The study said that about 10 to 15 per cent of wastes produced by industries are hazardous. Available at: https://www.swacchindia.ndtv.com (Last Modified May 26, 2017).

India. After the horrified past evidence India has to upright for control and use of toxic wastes to ensure healthy environment. Hence it has assumed as a greater need of the society to know the consequences of industrial hazardous wastes.

3.4.1 Issues and challenges

1. Lack of scientific and administrative preparedness of SPCBs/PCCs is major cause behind such delay in preparation of state's annual inventory. An accurate and scientific annual inventory is important to analyze the gap between quantity of generation and dispose/reuse/recycle/co-process/store of hazardous wastes.
2. International document strongly recommended for development of national annual inventory and national wastes classification. It distinguishes the inventory preparation in two type of generation. In the first generation inventory, basic calculation of hazardous wastes generation and review of management practices are used to create hazardous wastes inventory. Second generation inventory is advance stage of detailed hazardous wastes legislation, enforcement and licensing, self monitoring or compliance monitoring could be used to obtain data for annual hazardous wastes inventories. Such an inventory would be a part of tracking illegal disposal and movement of hazardous waste. The Organization for Economic Co-operation and Development (OECD) facilitated a scheme named Pollution Release and Transfer Register (PRTR) to promote the hazardous wastes inventories. The PRTR databases from industrialized countries can be the used to identify the use and released of specific hazardous wastes by the industrial sectors.

3. There are interlink among the H&OWM Rules, Hazardous Chemical Rules, Bio-Medical Rules, E-Waste Rules, Battery Waste Rules, Municipal Solid Wastes Rules as because waste arising from enforcement of these Rules finally send to the common hazardous wastes TSDF for recovery, reuse and recycle etc as hazardous wastes. Therefore, it is found critical to improve inventory of hazardous waste because of holistic dealing of hazardous wastes.
4. Most of the interstate transport data is not verified and reconciled. The present trend of Inventorisation of hazardous waste generation is not comprehensive in nature. It is an effective tool for implementation of H&OWM Rules, 2016. Lack of accuracy and adequacy is the major condition for non-uniformity of data provided by the industries.
5. The researcher observed that not all the industries having authorisation has submitted data and how many are not submitted. No action has been taken against such industries. Furthermore, the data analysis of manifest system is also suffered from non-availability of mechanisms and manpower to verify the information of hazardous wastes and its disposal routes prescribed in the authorisation.
6. It is also observed that the H&OWM Rules, 2016 does not cover the materials produce like mercury, lead etc. arising out of the enforcement of Hazardous Chemical Rules, Bio-Medical Rules, E-Waste Rules, and Battery Waste Rules.

Developing country like India should learn from the experiences of developed countries regarding their problem and management system so that innovate solution can be achieved with the limited resources available in the nation. In case of

environmental damages arising due to improper handling of hazardous wastes including accidental spillage during generation, storage, processing, transportation and disposal, the unit shall be liable to implement immediate response measures as per the "Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Wastes and Penalty" published by CPCB. [88] Despite a furry of legislation, the truth remains that the regulatory measures have failed to combat environmental degradation. To overcome the challenges faced by the hazardous wastes management, India must have take necessary action to minimize the generation of wastes and proper management of such wastes in an environmentally sound manner.

3.5 Import of H&OW: a threat before India

Rule 11 of the H&OWM Rules, 2016 empowers the MoEF&CC to deal with the matter of transboundary movement of hazardous wastes in accordance with the provision of law. The H&OWM Rules, 2016 permits importation of hazardous waste only for purpose of recycle, recovery, reuse, utilization and co-processing. On the other hand at the same time the Rules strictly prohibit importation of hazardous waste for disposal. Since 1992, India as a party to the Basel Convention has been following the Prior Inform Consent (PIC) procedure of the convention on the control of transboundary movement of hazardous wastes. Schedule III Part A of the HOWM

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[88] Central Pollution Control Board, Report: *Standard Operating Procedure and Checklist of Minimal Requisite Facilities for utilization of hazardous waste under Rule 9 of the Hazardous and Other Wastes (Management and Transboundary movement) Rules, 2016* (Ministry of Environment, Forest & Climate Change, Government of India, June 2016)

Rules, 2016 provides the list of wastes that requires PIC has been assigned Basel number as per the annexure VIII and IX to the convention.

In order to comply with the provision of H&OWM Rules, 2016 for preparation of National Inventory of Hazardous Wastes generation and management the CPCB has prepared nine formats to obtain information from SPCBs/PCCs. Format A1 is for district wise details on number of hazardous wastes generating industries, quantity of landfillable, incinerable, recycle, utilizable hazardous wastes generated (both as per authorisation and annual returns), quantity of hazardous wastes imported and exported. The format circulated vide letter dated 04/06/2018 to all SPCBs/PCCs for submitting information on or before 30th September 2018. Except Mizoram SPCB all the others has submitted in October 2018, January 2019 and some other in July 2019. Only thirty one SPCBs/PCCs have submitted annual return for the year 2017-18 and four others have failed to submit annual inventory report[89].

The MoEF&CC has granted permission for importation of 3,15.500 tones of lead scrap, 12,88,160 tones of used rubber, 1,20,600 tones of non-activated glass cullets and 1,55,727 tones electronic wastes between April 2016 to April 2018[90]. In the matter of import and export of hazardous waste the type and categories of wastes, importing and exporting country product manufacturing has not been prepared as per format. The Karnataka SPCB has submitted annual report for the period 2017-18 to the CPCB which in turn has informed gaps in the annual report and not accepted the

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[89] Government of India, *National Inventory on Hazardous Wastes Generation and its Management 2017-18*(CPCB: MoEF&CC, December 2019)

[90] Government of India, Report: *Interim Report of Monitoring Committee on Management of Hazardous Waste(CPCB, MoEF&CC, January 2019)*

same[91]. The Karnataka SPCB directed to submit correct annual return with detail verification of both hazardous and other wastes as specified in Part B and D of schedule III for import and export.

It is evident from the discussion and consideration of various application for import and export filed by the industries likewise M/s Harman Connected Services Corporation India Pvt. Ltd., Bangalore (F.no.23-44/2016-HSMD, where the applicant has imported electrical and electronic assemblies (EEAs) under part D of schedule III of HW Rules, 2016 which is to be re-exported after three years. Now the applicant requested to retain this item under the amendment notification dated 11 June, 2018. Further M/s Oberthur Technologies India Pvt. Ltd…Noida, U.P (F. no.23-94/2015-HSMD) is an applicant and has got permission for import of 2nd hand card personalization machine from Korea vide MO dated 08/10/2015 subject to be re-exported when it becomes non-functional or within next five year which is earlier from the date of permission[92]. It is found that the applicant recently informed the MoEF&CC that the item now out dated and the applicant unable to upgrade it. The exporter also refused to take it back. In such a situation the importer want permission to sale this item in India. Therefore, it is evident that such imported hazardous wastes stored in India to convert it into a reusable material without knowing danger level of such wastes.

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[91] PCB/WMC/3243/Circular/ 2019-20 dated 18 June 2019

[92] Government of India, *Agenda for 98th Meeting of Expert Committee for appraisal of proposals for Import/Export of Hazardous and Other Wastes,* dated 22nd and 23rd July, 2019, New Delhi (MoEF&CC, HSM Division)

The government has banned manufacture and import of toxic pollutant polychlorinated biphenyls and directed complete prohibition on its use in any form by end of 2025[93]. Importation of mercury, arsenic, selenium thallium is a threat for human being. At a time when most countries are phasing out mercury, India has donned the dubious mantle of the world's toxic capital by importing 531 tonnes mercury in 2002[94]. India has imported mercury from U.S.A., U.K., Russia, Spain etc., to fulfill the demand of industries, institute, and research laboratories. The wastes and compounds from the mercury are considered hazardous waste under Basel Convention. In spite of this, section 5 of the Foreign Trade (Development and Regulation) Act 1992 declared mercury and its various forms such as chloride, oxide and sulphide freely importable to India. The Minamata Convention will ban the import and export of mercury containing product by 2020. India has signed the treaty convention and how it will do this so far is a matter of great concern.

It is evident from the custom authority that importer furnished false information regarding the materials intends to be imported. The importer used to declared paper wastes which is actually municipal wastes such kind of fraudulent matters came to light. For effective implementation of these rules various issues need to be checked stringently to prevent misuse of the provisions. The custom authority do not have fund to dispose of seized hazardous wastes environmentally sound manner. It is observed that there is no co-ordination between the MoEF&CC and the custom

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[93] Government bans manufacture, import of polychlorinated biphenyls, chemical weekly, *available at:http//:www.chemical weekly.com.d9F3847a-3d1d* -4eff-83ac-17d1a563f764 (Visited on April 30, 2020)

[94] Nidhi Jamwal, "India a mercury hotspot" Down to Earth. *available at:*http://www.downtoearth.org.in (Visited on May 1, 2020)

authority as because not a single case of illegal movement reported since the notification of H&OWM Rules, 2016.

The Ban Amendment 1995 to the Basel Convention does not come into force due insufficient number of ratified parties. It means non-enforcement of Ban Amendment implies the allowance of free movement of hazardous wastes. Considering the gravity of the problem as recommended by the high power committee, the SC ban importation of 76 items of hazardous wastes came under annexure VII of the Basel Convention, but India has banned only 29 items under the HWM Rules 1989. Despite the Supreme Court order regarding the ban of hazardous waste imports, there has been illegal traffic in India. In a case the Supreme Court directed that no authorization or permission would be given by any authority for the import of hazardous waste items, which have already been banned by the Central Government or by any order made by any Court or any other authority, and no import would be made or permitted by any authority or any person of any hazardous waste already banned under the Basel Convention or to be banned thereafter with effect from the dates specified therein.[95]

3.6 Discussion

Maximum industries in India especially poorly maintained have stored hazardous wastes without any protective cover which may lead to contamination of ground water. The industries having secured landfill but not laid double HDPE and having captive SLFs, TSDFs designed prior to 2000 not as per CPCB guideline have

[95] *Research Foundation for Science Technology National Resource Policy v. Union of India and ors,* Writ Petition No.1995 SC 5 May 1997.

significant leaching into the ground must be investigated by the PCBs. The custom authority is not well equipped to check hazardous wastes before enter into India. The states not having TSDF and stored hazardous wastes in their premises dumping their hazardous wastes illegally within and outside the state boundaries. In view of the magnitude of the problems and its impact, the State Governments were directed to show cause as to why an order not be made directing closure of units utilizing the hazardous waste, where provision is not already made for requisite safe disposal sites. It was further ordered that cause to be shown as to why immediate order should not be made for closure of all unauthorized hazardous waste handling units.

The MoEF&CC and CPCB must constitute a team consists of members from professional companies as per recommendation of the monitoring committee and fund required are to be collected from penalty imposed by NGT and industries that are investigated. The list of industries not having TSDF and stored their hazardous wastes at their premises, underground storage tank of oil companies and abandoned industries need to be prepared by the respective PCBs. It is clear that Indian recycling is in the small sector, which is largely unregulated and unchecked for its quality of work and waste. Due to absence of common TSDF the hazardous waste generating industries has easily find illegal dump sites to avoid cost of disposal.

The Supreme Court directed to take action against illegal import and export of hazardous wastes in the country. It is need of hour to have serious implementation of the regulations; and conducting recycling, reuse and final disposal in an environmentally sound manner. Discussion of the problem is not the solution of the problem. India framed various laws to ensure safe management of hazardous waste,

generated from different sources. The Rules establish the responsibility for the safe and environmentally sound handling of environmental waste by any ‘occupier’ of hazardous waste. While basic industrial and environmental regulations are uniform across India, states can differ in their implementation of regulations. The need of the hour is to have stringent implementation of the existing rules, which will lead to proper collection mechanism, sound recycling technologies, adequate and scientifically designed disposal sites. It is not too late; still it is possible to through immediate implementation of Hazardous Wastes Management Rules by the Government agencies, Pollution Control Boards etc.

In summary of the study, it can be said that in the developing countries thrust on economic development is often given priority to production costs than the best available technology and this result in more wastes generation. The government must formulate policies and strategies towards prioritizing waste reduction and minimization rather than mere disposal. Remediation strategy needs to focus on the ‘polluter pays principle‟ with the polluter being asked to pay penalty as well as costs of cleaning up the pollution. The SPCBs/PCCs should cancel the authorisation of Industries causing pollution repeatedly. Dedicated fund for remediation, waste exchange Banks and Collection Centers should be developed to provide information on wastes as on the types of waste and the methods to manage waste, to provide information on wastes and promote reuse, recovery and recycling technologies which upscale the quality of resource recovery.