

ENVIRONMENTAL VICTIMIZATION OF E-WASTE IN THE FORM OF GREEN CRIME - A VICTIMOLOGICAL PERSPECTIVE OF GREEN CRIMINOLOGY

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Abstract- This paper substantially sketches out the existing situation of E-waste laws in India. The author tries to combine the broad principles of the eco-justice perspective of green criminology. From an eco-justice perspective environmental harm is best seen in terms of justice, which in turn is based upon ideas of human, ecological, and species rights and comprehensive egalitarian principles. Environmental victimization is considered from the point of view of transgressions against humans, specific biospheres or environments, and non-human animals. The E-waste problem at global as well in India is currently an issue to be discussed. This article focuses on the difficulty of developing nations of the world, as they stagger under an increasing burden of the world's electronic waste. Dismantled parts of electronic goods are poisonous - hazardous to both the health of workers handling them, as well as to the environment. Third world nations are the worst hit, due to poverty, low awareness, and general vulnerability. The author has attempted to analyze the causes, effects, and potential solutions to this problem especially focus on Indian scenario. This article surveys the problem of electronic waste within the international legal framework, with Special emphasis on the domestic setup of India, selected as examples of leading developing countries.

KEYWORDS - Green criminology, Conservation criminology, Environmental victimization, International protection, E-waste

I. INTRODUCTION –

Environmental crime and the victimization is a burning issue of the 21st century that has been neglected in both Victimology and criminology for a long time. Nevertheless, in the last decade, criminology has had a growing focus on environmental crime (for example Carbon crime, e-waste crime, camouflage-color crime,) (White R. 2008, 2011). Within the field of "green" criminology (a generic portion of environmental jurisprudence, 'conservation criminology'(e.g. Gibbs, C., Gore, M., McGarrell, E. and Rivers, L. 2010) or eco-critical

criminology'(Lynch, M. and Stretesky, P. 2001) relatively there is much attention paid to environmental crime, but not necessarily to environmental victimization (Williams C. 1996) and particular cases in India. Green criminology occupies that space between the old, traditional concerns of criminology (i.e. with its fixation on working-class criminality and conventional street crime) and the vision of an egalitarian, ecologically sustainable future (where the concern is with ecological citizenship, precautionary social practices, environmental justice, ecological justice, Species justice, intergenerational equity e.g. Hall, M. (2011), Williams C (1996)

The victims of e-waste and other environmental green crime have been overlooked due to not having stringent (focused more on compensation rather on imprisonment) laws in India and so subsequently these victims are not sufficiently addressed by the justice system, the illustrations are numerous. (Mehta M.C. 1988, 1997,1999,2000,2001, Kumar S.2001) A few remarkable exceptions have focused on harms caused by crimes of the powerful or activities both 'lawful and awful'. The green criminology with advanced ideas of Victimology has made important steps in the development of the position of the victim within both research and policy. At the beginning of Victimology, Mendelsohn (Drapkin, I. and Viano, E. (1974) defined victims according to their contribution to the crime. But during the time a broader categorization of victims was considered, such as victims of work accidents, genocide, victims of circumstances beyond human control and natural disasters. (Elias at el. 1986) This was a promising first step for environmental Victimology. The present article will focus on the e-waste laws in India and there toxic effect in consonance with green criminology and Green Crime.

II. E-WASTE VICTIMIZATION OF GREEN CRIME AND RECENT RULES

E-waste recycling is primarily done in informal setups. In India, there has been little work done to study the health risks on workers in various occupations, especially in the informal sector and since recycling is mainly carried out in the unorganized or informal sector, its risks are mainly unknown but definitely required immediate attention as All this 'recycling' happens under hazardous circumstances, where remainders are illegally dumped or burned releasing the toxic components. These toxin fumes cause lungs disorder. (E-waste workers in India have breathing difficulties, irritation, coughing and choking due to improper safeguards)(sherya. P. 2015) these toxins easily disseminate in the soil, air, and water, frequently without notice, and not easily soluble thus stay there for many years. (Greenpeace (2008a) In reference to the butterfly effect, the harm manifests itself locally, regionally, nationally, and globally. The harm can be seen in different forms. The first environmental harm is the impact of the hazardous components upon ecosystems. The other environmental effect is on climate change, through the release of the greenhouse gases they contain, and especially through the burning of products. (White, R. 2011) For one device the impact is minimal, but the mass

quantity of batteries, monitors, and so on makes it challenging and continued exposure to these hazardous substances can make the impact much greater than initially experienced. (South, N. 1998) In merely referring to the effects on the quality of water, air, and soil, we risk ignoring the human victims of environmental harm. Speaking in the terms of the impact on climate change and ecosystem risks while considering the phenomenon as 'victimless', a statement so often related to corporate crime. The victims of the e-waste dumping often do not know they are harmed, or they accept the harm because they need the e-waste business to survive. (Dayaneni G. & Shuman A. 2007) Environmental victimization (Williams, C. 1996) is not always instantaneously visible and identifiable, but victims of environmental crime do exist. Naming these victims and discussing redress is important. The improper dismantling and recycling of e-waste have a detectable impact on the health of workers. The hazardous and poor working circumstances in recycling facilities of Africa and Asia in terms of health, safety, and deteriorating working standard have been demonstrated numerous times (BAN). In India i.e. Delhi, (Sinha,A.)Mumbai (Sinha, S., & Wankhade, K. 2007) Hyderabad,(Sikdar , P. 2014) Kolkata (e.g. Banthia Mahesh & Ankita Jena, MonalisaDatta, Rachna Agarwal 2014)and Bangalore)adults and children go through the piles of dumped electronic and electrical equipment in search of valuable materials, (McCallion, Kenneth F2003, Krishna & Kulshrestha 2007)they are often barehanded, and dismantle them without protective equipment.

Electrical and electronic equipment (EEE) production is presently one of the fastest growing global manufacturing activities. Rapid technological development and low-cost availability of electronic gadgets and changing Lifestyle of people have zipped up the obsolescence rate of IT and consumer electronics, fueling generation of EEE. (Jason Lewis 2007) Though most academicians and green criminologist predominantly look at Information Technology (IT) equipment as a source for e-waste, other categorization includes household items, such as refrigerators and air conditioners, within the fastest growing solid-waste market. (Siddharth Prakash, et al., 2010) In Indian context, we have rules for the practice of hazardous substances as per global best practice and to stop e-waste dumping in the country is a subject of the ministry of environment and forest. The E-waste (management) rules, 2016 define E-waste under rule 3(r) - 'e-waste' means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes. India is the signatory to the Basel convention and proposed recent legislation namely E-waste (management) rules, 2016 and Hazardous and other waste (management and Transboundary movement) rules, 2016. These legislative enactments contain some of the best global slandered rules and regulation with respect to E-waste disposal and management. It comprises the rule of extending producers' responsibility to the post-consumer stage of the product lifecycle and imposes the responsibility for collection of end of life products and to ensure that such wastes are channelized for safe handling. The huge share which is transported to India in the name of donation never severs its purpose rather

it's dismantled illegally to extract the raw materials. (Krishna & Kulshrestha 2007) This seems to 'exempt' the responsible actors from caring for the victims or remedying the harm. (Fattah, E. 2010) In India, the indifferent government and corruption coupled with an ignorant people, form a fatal combination and that is with weak environmental laws makes this task easier. (Internet desk, 2016). Poverty and lenient environmental regulations in developing countries make China, Nigeria, (Poropot A.M., J. Douglas & Brahim S. 2011), India are the recipients of a majority of the developed world's e-waste.

III. INTERNATIONAL PROTECTION AND CONVENTIONS

There have been numerous conventions and protection was provided by national and international agencies and for the protection of environment, there has been the convention for our green earth. The Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972) Johannesburg Declaration on Sustainable Development (Johannesburg Declaration), (Agenda 21), the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes, (The Cairo Guidelines). The Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and LOM IV Convention, Basel conventions. This promotes Environmentally Sound Management (ESM). The BAMAHO CONVENTION, REACH, which stands for Registration, Evaluation, Authorization, and Restriction of Chemical Industries, is a European community regulation of the safe use of chemicals which took effect in 2007. The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (The Basel Convention) so was adopted in 1989 and entered into force in 1992 its goal was to prevent the export of hazardous material from developed nations to developing nations. Although the Basel Convention protects developing nations from receiving hazardous materials such as electronic waste from developed nations, the United States is the single developed nation that has refused to ratify it. Even then, many environmental groups and undeveloped nations believed that the terms of the Basel Convention were too weak, and in 1995 protests led to an amendment to the Basel Convention known as the Basel Ban Amendment (the Basel Ban). The European Union's Waste Electrical and Electronic Equipment (WEEE) and Japan's Home Appliance Recycling Law (SHAR) also play the very important role in the same.

IV. HEALTH HAZARD OF THE E-WASTE AND ITS COMPOSITION

21st century is blessed with technology and it made human life very comfortable, but technology also combined with its shadier side (Electronic and electrical products make life comfortable, but are a Pandora's Box once discarded) that from morning to night we are enclosed by these toxic ingredients as children's plastic bottle of milk (Mohapatra, P., Rajankar, P., & Mathur, K. 2016) to eating fertilized and GMOs. We are involuntarily taking the small amount of toxins. The composition of e-waste is diverse and Falls under 'hazardous' (which

includes Americium, lead, mercury, cadmium, Hexavalent chromium, Brominated Flame Retardants (BFRs), Beryllium oxide(KutzJ. 2006)and 'non-hazardous' categories. Broadly, it consists of ferrous and non-ferrous metals, plastics, printed circuit boards, concrete, ceramics, glass, wood and plywood, rubber and other items. Iron and steel constitute about 50% of the waste, followed by plastics (21%), non-ferrous metals (13%) and other constituents. Non-ferrous metals consist of metals like copper, aluminium and precious metals like silver, gold, platinum, palladium and so on. The presence of elements like lead, Hexavalent chromium, mercury, arsenic, cadmium, selenium and flame retardants beyond threshold quantities make e-waste hazardous in nature. It contains more than 1000 different substances, many of which are toxic, and creates serious pollution upon disposal. Obsolete and discarded computers poses the most significant environmental and health hazard among the e-wastes it contains a brew of toxic substances, such as lead (responsible for causing damage to the central and peripheral nervous system, endocrine system, circulatory system, kidney, reproductive system as well as slowing brain development in children), cadmium (widely believed to cause irreversible effects on human health upon accumulation in the human body, particularly the kidneys),mercury (responsible for causing damage to various organs including the brain and kidneys, as well as to fetuses),chromium-VI plastics'(including PVC)," Brominated Flame Retardants (BFRs),' and beryllium (which can cause lung cancer and beryllicosis).Triclosan [5-chloro-2-(2, 4-dichlorophenoxy) phenol; S] is a chlorinated aromatic chemical having antimicrobial and antifungal properties. (Courtney, K.D.; Moore, J.A, 1971)

V. CONCLUSION AND FURTHER QUESTIONS

E-waste problem which is growing concern of India is expanding day to day. The victims of e-waste in India are due to inherent problems of lack of awareness, poverty and legal laxity. An unresponsive government and ignorant people form a lethal combination. Even where the government is willing to work, the policies either remain on the statute books or are too toothless to make a difference. Moreover, a corrupted and lethargic administration makes it difficult to achieve the protection planned by the law. The victimization of workers of e-waste sector is invisible as they do not know their right. Some question with respect to environmental crime and victimization processes which is necessary to be tackled is whether these workers are in the true sense a victim of the green crime? Whether green crime can be termed as a real crime or victimless crime? What could be the possible suggestion to improve working condition of e-waste industries? Whether the recent E-waste rules are sufficient to tackle the present condition of workers with victimization point of view?

The green criminology in India is still at the nascent stage. Green itself signifies a form of radical approach which means the harm caused by human to non- human, animals or even environment should be termed as illegal. This "green" approach should be inculcated in today's legislative wisdom with protective and precautionary principles point of view to save future and for the sustainable development of India.

REFERENCES**BOOKS-**

- Drapkin, I. and Viano, E. (1974). *Victimology: A New Focus*. Vol. V, Exploiters and the Exploited. Lexington: Lexington Books, Page 110-121
- Elias R (1986) *the politics of victimization: victims, victimology and human rights*. Oxford University Press, New York Page 178 – 187
- Fattah, E. (2010) 'The evolution of a young, promising discipline: sixty years of victimology, a retrospective and prospective look', pp 22-44
- Hall, M. (2011) 'Environmental victims: challenges for criminology and victimology in the 21st century, *Journal of Criminal Justice and Security*, 13(4): 371–391.
- Lynch, M. and Stretesky, P. (2001), 'Toxic crimes: examining corporate victimization of the general public employing medical and epidemiological evidence', *Critical Criminology*, 10: 153–172.
- S. G. Shoham, P. Knepper and M. Kett (eds) *International Handbook of Victimology*. Boca Raton, FL: CRC Press, pp. 43–94.
- South N (1998) *A green field for criminology: a proposal for a perspective*. *Theoretical Criminology* 1998(2):211–233, Lynch M (1990) *The greening of criminology: a perspective on the 1990s*. *Critical Criminology* 2:1–5
- South, N. (1998) 'Corporate and state crimes against the environment: foundations for a green perspective in European Criminology', in V. Ruggiero, N. South and I. Taylor (eds)
- *The New European Criminology: Crime and Social Order in Europe*. London and New York: Routledge page no. 221-230
- White, R. (2011) *Transnational Environmental Crime. Towards an Eco-global Criminology*. London and New York: Routledge page 123-130
- White, R. (ed.) (2009) *Environmental Crime: a Reader* Willan Publishing, White R (2008) *Crimes against nature: environmental criminology and ecological justice*. Willan Publishing, Devon, page 97-100
- Williams, C (1996) *an environmental Victimology*. *Social Justice* 23(4):16–40

ONLINE JOURNALS

- Billingham, Betsy M. (2005). *E-Waste: A Comparative Analysis of Current and Contemplated Management Efforts by the European Union and the United States*. *Colorado Journal of International Environmental Law and Policy*, 16(2), 399-428. Retrieved July 9, 2017
- Gibbs, C., Gore, M., McGarrell, E. and Rivers, L. (2010) 'Introducing conservation criminology: towards interdisciplinary scholarship on environmental crimes and risks', *British Journal of Criminology*, 50(1): 124–144.
- Greenpeace (2008a) *Chemical Contamination at e-waste Recycling and Disposal Sites in Accra and Korforida, Ghana*. Greenpeace, UK: Greenpeace Research Laboratories. European Environment Agency (2009) *Waste without Border in the EU? Tran's boundary Shipments of Waste*. Copenhagen: European Environment Agency.

- Jason Lewis, E-Cemeteries: Where Electronic Waste Never Dies, 13 Pub INT. L. REP. 177 (2008).
- Jennifer Kutz, You've Got Waste: The Exponentially Escalating Problem of Hazardous e-Waste, 17 Vill. Envtl. L.J. 307 (2006). Available at: <http://digitalcommons.law.villanova.edu/elj/vol17/iss1pp110-117>
- Jin, Jing, Vol. 39, and Issue 3 (2014), E-Waste & the Regulatory Commons: A Proposal for the Decentralization of International Environmental Regulation, Brooklyn Journal of International Law, pp. 1251-1288
- Krishna & Kulshrestha, - Greenpeace International accord where Does e-Waste End Up? Page no. 111-114
- McCallion, Kenneth F (2003). International Environmental Justice: Rights and Remedies Hastings International and Comparative Law Review,427-444. Retrieved July 8, 2017, from <http://heinonline.org/HOL/LuceneSearch?terms=ENVIRONMENTAL>
- Okwu P I, Onyeje I N. Extraction of valuable substances from e-waste. American Journal of Engineering Research. 2014; 3(1): 299–304. ISSN: 2320–0847, p-ISSN: 2320–0936.
- Pak, Phonix, Haste Makes E-Waste: A Comparative Analysis of How the United State Should Approach the Growing E-Waste Threat Cardozo Journal of International and Comparative Law, Vol. 16, Issue 1 (Spring 2008), pp. 241-278
- The Basel Action Network (BAN) and Silicon Valley Toxics Coalition (SVTC), Exporting Harm: The High-Tech Trashing of Asia, February 25, 2002. Pp 20-45

REPORTS

- A.M. Poropot, J. Douglas & S. Ibrahim, Nigeria Waste Imports From Italy, Trade Environment Database <http://www.american.edu/projects/mandala/TED/nigeria.htm>
- Agency for toxic substances and diseases registry, U.S.A department of health and human services (2002), available at <http://www.atsdr.cdc.gov/tfacts4.pdf> (last visited March 2, 2017).
- Agenda 21 embodies a very comprehensive action plan to mitigate economic inequity and ecological destruction. Unfortunately, the document is not legally binding and has mere persuasive value. It embraces within its scope several aspects of sustainable development like poverty, consumption patterns, health, human settlements, financial resources, technological transfer, energy, climate, etc. See Agenda 21, available at <http://www.un.org/esa/sustdev/documents/agenda21/English/agenda21toc.htm> (last visited March 2, 2017).
- Bamako Convention on the Ban of the Import Into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa (Jan. 30, 1991), <http://www.ban.org/Library/bamakotreaty.html> [hereafter Bamako Convention].
- Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (1992), <http://www.basel.int/text/con-e-rev.pdf> [hereafter Basel Convention].
- Courtney, K.D.; Moore, J.A. Teratology studies with 2, 4, 5-trichlorophenoxyacetic acid and 2, 3, 7, 8-tetrachlorodibenzo-P-dioxin. Toxicol. Appl. Pharmacol. 1971, 20, 396–403.
- Dayaneni Gopal & Shuman Aaron, Toxic Sentence: Captive Labor and Electronic Waste, Race, poverty and the environment, 45 (2007), <http://www.urbanhabitat.org/files/RPE14-1Dayaneni-Shuman-s.pdf>.

- In 2002, at Johannesburg, the world community reaffirmed its commitment to sustainable development, for "building a humane, equitable and caring global society, cognizant of the need for human dignity for all." The members undertook "a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection - at the local, national, regional and global levels." See World Summit on Sustainable Development, Johannesburg Declaration on Sustainable Development, art. 5, U.N. Doc. A/CONF. 199/20 (Sept. 4, 2002).
- Internet desk (2016, January 27). India ranks 76 in Corruption Perception Index. [Http://www.thehindu.com/news/international/India-ranks-76-in-Corruption-Perception-Index/article14022729.ece](http://www.thehindu.com/news/international/India-ranks-76-in-Corruption-Perception-Index/article14022729.ece). Retrieved July 9, 2017
- Japan has implemented a national e-waste policy. See discussion infra Part III.C. See also inform, inc., electric appliance recycling in Japan 1 (2003) [hereinafter inform, appliance], available at <http://informinc.org/japanpr.pdf> (explaining that Japan has enacted responsibility requirements for the disposal of, among other things, electronic appliances); INFORM INC., PC RECYCLING IN JAPAN 1 (2004) [hereinafter INFORM, PC], available at <http://informinc.org/japanpc.pdf> (providing an overview of Japan's Recycling Promotion Law, amended in 2001 to govern the responsible disposal of personal computers).
- Many felt that the Basel Convention only served to legitimize hazardous waste trade rather than prohibit it. The passing of the Basel Ban was a victory against very powerful opposition from such countries as the United States, Australia, Germany, Canada, Japan, and the United Kingdom. What is the Basel Ban?, Basel action network, http://ban.org/about/Basel_ban/what_is_Basel_ban.html
- Mohapatra, P., Rajankar, P., & Mathur, K. (2016). Beware of Toxic Sippy Cups An Investigative study on Bisphenol - A (BPA) in Sippy cups in India (pp. 1-27, Rep.). Delhi: Toxics Link
- P.Banthia Mahesh & Ankita Jena, Monalisa Datta, Rachna Agarwal (2014). Kolkata and Environment Plastic Menace (pp. 1-14, Rep.). Delhi: Toxics Link
- See Action Plan, available at <http://www.unep.org/Documents.Multilingual/Default.asp?>
- Sikdar, P. (n.d.). E-waste poison threatens Hyderabad. [Http://timesofindia.indiatimes.com/city/hyderabad/E-waste-poison-threatens-Hyderabad/articleshow/45655926.cms](http://timesofindia.indiatimes.com/city/hyderabad/E-waste-poison-threatens-Hyderabad/articleshow/45655926.cms). Retrieved December 27, 2014
- Sinha, S., & Wankhade, K. (Feb 2007). Mumbai choking E-waste A study on the status of e-waste in Mumbai (pp. 1-26, Rep.). Delhi: Toxics Link
- Sinha, S., Mahesh, P., & Sharma, V. (2011) Brominated Flame Retardants Spreading the Fire A Report on the Recycling of Brominated Flame Retardant Contaminated Plastic (pp. 1-33, Publication). Delhi: Toxics Link.
- The Cairo Guidelines and Principles for Environmentally Sound Management of Hazardous Waste adumbrate a scheme for 'environmentally sound transport, handling (including storage) and disposal of toxic and dangerous wastes'. See Cairo Guidelines and Principles for the Environmentally Sound Management and Disposal of Hazardous Wastes, Annex II, U.N. Doc. U.N.E.P./GC.14/17 (1987), reprinted in Final Report of the Working Group, Annex III, U.N. Doc. U.N.E.P./WG.122/3, (1985). However, being guidelines, they are merely recommendatory in character. See Phillippe sands, principles of international environmental law, Cambridge university press, 676-77 (2003).

- The European Union has taken steps to address the e-waste crisis by implementing the Waste Electrical and Electronic Equipment (WEEE) Directive which requires producers to take back used electronics from consumers, and the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) initiative which prohibits the use of certain toxic substances in the production of new electronic devices. See discussion *infra* Part III.B. See also Directive 2002/96/EC, of the European Parliament and of the Council of 27 January 2003 on Waste Electrical and Electronic Equipment (WEEE), 2003 O.J. (L 37)24-25 [hereinafter WEEE Directive], available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:0307:0024:0038:EN:PDF>; Directive 2002/95/EC, of the European Parliament and of the Council of 27 January on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2003 O.J. (L 37) 19-20 [hereinafter RoHS Directive], available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:0307:0019:0023:en:PDF>; Templeton, *supra* note 4, at 782, 784-85.
- The State parties are obliged to endeavour to control international movement of hazardous waste and radioactive waste by prohibiting all direct or indirect export and import of such waste in the area governed by it. See Fourth ACP-EEC Convention of Lomé, art. 39 (Dec 15, 1989), unofficial translation at <http://www.acpsec.org/en/conventions/lome4bis-e.htm>. The Convention does not define the term 'hazardous substances'; on the contrary, it simply refers to the products listed in Annexure I and 2 to the Basel Convention. See *infra* note 24. 'Radioactive waste' has also not been defined and purports to adopt the applicable definitions and thresholds lay down in the framework of the IAEA.
- The Stockholm Conference was the first landmark international Endeavour aimed at carving a niche for the man in harmony with nature. The Declaration of the United Nations Conference on the Human Environment laid down twenty-six "principles" which cover a broad spectrum of ecological rights and duties of man and states. See Conference on the Human Environment, Declaration of the United Nations, U.N. Doc. A/CONF.48/14/Rev. I (Jun. 5-16, 1972). An Action Plan was also adopted, which may be divided into three parts:
 - Earth Watch Programme;
 - Environment Management;
 - Supporting Measures such as education, training, public information and finance.

NEWSPAPER ARTICLES

- Basel Action Network and S. V. T. Coalition (2002) *Exporting Harm: The High-Tech Trashing of Asia*. Seattle, WA: The Basel Action Network (BAN); San Jose, CA: Silicon Valley Toxics Coalition (SVTC). Basel Action Network (2005) *The Digital Dump. Exporting Re-use and Abuse to Africa*. Seattle, WA, the Basel Action Network (BAN)
- Michael Belliveau & Stephen Lester, Ctr. for Health, Environmental & Just. And Environmental Health Strategy (2004), available at <http://www.watoxics.org/files/pvc-bad-news.pdf>.
- Occupational safety and health administration, U.S. Department of labour, cadmium health effects (2005), <http://www.osha.gov/SLTC/cadmiun/recognition.html> (last visited June 15, 2017).
- Office of research facilities, national institute of health hazard (2006), [http://orf.od.nih.gov/Environmental Protection/Mercury+FreeMercuryHealthHazards.htm](http://orf.od.nih.gov/Environmental%20Protection/Mercury+FreeMercuryHealthHazards.htm) (last visited June 24, 2017).

- Singhal, A. (n.d.). Delhi, NCR likely to generate 50,000 metric tons of e-waste by 2015: ASSOCHAM. <http://timesofindia.indiatimes.com/home/environment/pollution/Delhi-NCR-likely-to-generate-50000-metric-tonnes-of-e-waste-by-2015-ASSOCHAM/articleshow/22187238.cms>. Retrieved July 9, 2017

CASE LAWS -

- M.C. Mehta v. Union of India, AIR 1988 SC 1037.
- Bhavani River v. Sakthi Sugar Limited AIR 1998 SC 2059,
- Rural Litigation and Entitlement Kendra, Dehradun V. State of U.P., AIR 1988 SC 1037 14
- Subhash Kumar v. the State of Bihar, AIR 1991 SC 420;
- M.C. Mehta V. Union of India. AIR 2000 SC 1997 15
- M.C. Mehta v. Union of India, AIR 1997 SC 734;
- M.C. Mehta v. Union of India, AIR 1999 S.C. 3192. 16
- M.C. Mehta v. Union of India, (2001), 9 SCC 520

