



AN ANALYSIS OF THE ROLE OF CORPORATE SOCIAL RESPONSIBILITY IN E-WASTE MANAGEMENT IN INDIA

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ABSTRACT

The environmental threat posed by electronic trash (also known as "e-waste") to future generations is on the rise. The disposal of outmoded electrical and electronic devices, which often include hazardous substances like lead, mercury, cadmium, metallic elements, and other compounds, is becoming more difficult. Electronic trash is made up of these devices. Surface water and groundwater are particularly vulnerable to contamination from e-waste that comes from landfills. Acids and sludge from melting computer chips can cause soil to become acidic and contaminate groundwater if they are dumped on the ground. Thus, e-waste disposal poses a serious risk to the environment and to human health and hence becomes a difficult social and environmental problem.

Corporate social responsibility (CSR) refers to the responsibility of businesses to consider and address the social and environmental impacts of their operations. Taking into perspective that e-waste disposal causes grave environmental health hazards, e-waste management becomes an essential aspect of corporate social responsibility (CSR) for companies that manufacture, distribute, or use electronic products. Against this backdrop, the present paper critically analyses the efficacy of CSR in the regulation of e-waste management in India and gives a future roadmap as to how companies can effectively incorporate e-waste management into their CSR efforts to curb this menace ensuring healthy quality of life for future generations.

(Keywords: E-Waste, E-Waste Management, Corporate social responsibility)

1. INTRODUCTION

The correct treatment, disposal, and recycling of electronic trash are referred to as "e-waste management." E-waste refers to abandoned electronic gadgets such as computers, smartphones, televisions, printers, and other electronic appliances. It is also known as

electronic garbage or waste electrical and electronic equipment (WEEE).¹ Due to the explosive development in electronic use and the negative effects that incorrect electronic device disposal has on the environment and human health, effective e-waste management is crucial. Here are some important facets of managing e-waste:²

Collection: It is essential to set up collecting systems to promote proper e-waste disposal. This can entail setting up specific drop-off locations, holding unique collection occasions, or collaborating with shops or electronics producers to promote take-back programs.

Sorting and Segregation: E-waste must first be collected before being sorted and divided into other categories. This aids in determining whether parts can be recycled, put to use again, or safely disposed away.

Recycling: The handling of electronic waste must include recycling. It involves removing priceless components from electrical devices, including rare earth elements, copper, aluminum, and precious metals (gold, silver). Recycling lessens the environmental impact of mining for new materials, saves energy, and conserves resources.

Disposal: To avoid pollution, hazardous materials must be disposed of properly. Batteries and specific chemicals are among the parts of electronic devices that can be detrimental to the environment and people's health. Such hazardous materials must be properly disposed of using specialized facilities and procedures.

Reuse and Refurbishment: The lifespan of electronic gadgets can be increased by promoting their reuse and repair. To cut down on the production of e-waste generally, working gadgets can often be improved, repaired, or repurposed for donation or resale.

Policy and Regulation: By creating and implementing laws and regulations, governments play a key part in managing e-waste. Legislation requiring safe disposal, recycling goals, extended producer responsibility (EPR) plans, and limitations on the use of hazardous materials in electronics are a few examples.

To reduce the environmental and health dangers related to inappropriate handling and disposal of electronic waste, it is crucial for individuals, companies, manufacturers, and governments to work together in implementing effective e-waste management methods. Towards effective management of e-waste, Corporate Social Responsibility (CSR) becomes very pertinent as it imposes an obligation upon companies to be socially and environmentally responsible.

2. SITUATION OF E-WASTE MANAGEMENT IN INDIA

¹ Rahul Mor , K.S Sangwan , Sarbjit Singh , Atul Singh , Manjeet Kharub , “E-waste Management for Environmental Sustainability: an Exploratory Study”, available at: <https://www.sciencedirect.com/science/article/pii/S2212827121000524>, (Visited on March 30th, 2023).

² Monika and Jugal Kishore, E-Waste Management, “As a Challenge to Public Health in India”, *Indian J Community Med.* 2010 Jul; 35(3): 382–385, available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2963874/>, (Visited on April 22nd, 2023).

As the IT and communication sectors have expanded, so has the use of electronic devices. Consumers are being compelled to discard obsolete devices more quickly due to faster technical improvements, which add e-waste to the solid waste stream. A stronger emphasis on recycling and improved e-waste management is required in light of the growing e-waste problem.

According to a report presented at the World Economic Forum 2018, India ranks 177 out of 180 nations and is among the worst five nations in the Environmental Performance Index for 2018.³ This was connected to subpar performance in the areas of environmental health policy and air pollution-related fatalities. In addition, fewer than 2% of the entire amount of e-waste that India formally produces each year is recycled. “India is the fifth-largest producer of e-waste in the world, behind the USA, China, Japan, and Germany. India has been producing more than two million tonnes of e-waste yearly since 2018, and it also imports a sizable amount of e-waste from other nations.”⁴ Groundwater pollution, for example, is a typical problem caused by dumping in open dumpsites. Computer equipment makes up almost 70% of all e-waste, according to the Associated Chambers of Commerce and Industry of India and KPMG study, *Electronic Waste Management in India*. The remaining sources of e-waste include phones (12%), electrical equipment (8%), and medical equipment (7%).⁵

3. LAW RELATED TO E-WASTE MANAGEMENT IN INDIA

The law relating to e-waste management in India is governed primarily by the E-Waste (Management) Rules, 2022 (Rules,2022). These rules were introduced under the provisions of the Environmental Protection Act, of 1986. A need was felt for revised rules because of the rising number of electric vehicles, electronic devices, solar panels, etc. Also, due to the push toward a digital economy, electric mobility, and renewable energy, it is rightfully apprehended that e-waste will significantly increase in India in coming years calling for a robust mechanism to tackle the hazards apprehended thereof.

The Rules,2022 have come into force on 1 April 2023 wherein the main change has been brought about in the extended producer responsibility (EPR) plan of the producers of e-waste. Producers of a particular category of waste are held accountable under EPR for the proper treatment and disposal of that trash. While the EPR system under the 2022 Rules gives manufacturers an annual e-waste recycling target, the EPR mechanism under the 2016 Rules placed more emphasis on the producer's obligation to collect back the e-waste put into the market and set collection targets. This will support safe e-waste disposal and efficient recycling.⁶

³ “Growing Concern About E-Waste In India”, available at: [https://recykal.com/2022/09/05/growing-concern-about-e-waste-in-india/#:~:text=Every%20year%2C%20there%20is%20a,meet%20India's%20e%2Dwaste%20generation,\(Visited on April 22nd, 2023\).](https://recykal.com/2022/09/05/growing-concern-about-e-waste-in-india/#:~:text=Every%20year%2C%20there%20is%20a,meet%20India's%20e%2Dwaste%20generation,(Visited on April 22nd, 2023).)

⁴ Ibid

⁵ “Managing E-waste in India: Current Situation and Challenges”, <https://www.changealliance.in/managing-e-waste-in-india-current-situation-and-challenges/>, (Visited on April 24th, 2023).

⁶ E-Waste (Management) Rules, 2022, <https://cpcb.nic.in/e-waste/> (Visited on April 24th, 2023).

In contrast to the 2016 Rules, which also covered dealers, consumers, bulk consumers, and collection centers, the 2022 Rules' scope of applicability is limited to manufacturers, producers, refurbishes, dismantlers, and recyclers of electronic trash. also under the new rules, the word "bulk consumer" has been enlarged and simplified, and the definition of "e-waste" has been expanded to encompass solar photovoltaic modules, panels, or cells that are disposed of as waste.⁷ Now, any organization, including the e-retailer, that consumed at least 1,000 of the electrical and electronic devices mentioned in Schedule I of the 2022 Rule at any stage during the specific financial year will be regarded as a bulk consumer of e-waste. In order to ensure that e-waste is managed in an environmentally sound manner, the term "EPR" has been redefined to refer to any producer of electrical or electronic equipment as listed in Schedule-I's responsibility for meeting recycling targets as listed in Schedule-III and Schedule IV. Additionally, the definition of "producer" has been expanded.⁸ Furthermore, manufacturers, producers, refurbishers, and recyclers of e-waste are required by Rules 2022 to register on the site that will be created by the Central Pollution Control Board. Additionally, the 2022 Rules prohibit MPRR from conducting business with any unregistered MPRR or operating its business without acquiring the aforementioned registration.

In order to make it easier to reach EPR goals, the 2022 Rules established the idea of acquiring an EPR recycling certificate. In order to meet their recycling goals under the 2022 Rules, producers can obtain online EPR recycling certificates from authorized recyclers. The CPCB will only issue recycling certificates that are good for two years after the end of the fiscal year in which they were generated.

Penal provisions have also been incorporated under Rules, 2022. Under section 15 of the Environment (Protection) Act of 1986, rules have specifically incorporated measures relating to environmental compensation and prosecution. In addition, an organization that assists or abets the breach of the 2022 Rules may be subject to environmental compensation. As a result, it is now possible to impose environmental compensation.

4. MEANING OF CORPORATE SOCIAL RESPONSIBILITY (CSR)

The term "CSR refers to the idea that companies have a duty to think about and address the social, environmental, and ethical implications of their operations". Beyond the conventional emphasis on maximizing profits, it covers the belief that businesses should actively contribute to society's and the planet's well-being. CSR entails incorporating social and environmental considerations into a business's operational plans and decision-making procedures. It requires accepting accountability for how corporate operations affect many stakeholders, such as the environment, communities, suppliers, and employees.

5. LAW RELATING TO CSR IN INDIA

⁷ Lakshmikumaran & Sridharan," E-waste (Management) Rules, 2022 - An analysis", <https://www.epa.gov/sites/default/files/2014-05/documents/india.pdf>, (Visited on May 14th, 2023).

⁸ Ibid

The concept of CSR is governed in India by Section 135 of the Companies Act, 2013. The CSR provisions of the 2013 Companies Act apply to any business with a turnover of at least 1,000 crores, a net worth of at least 500 billion crores, or a net profit of at least 500 crores. The Act mandates that businesses engage in CSR efforts by allocating 2% of their average net profit over the previous three years. Companies are also required by the Act to establish a Corporate Social Responsibility Committee (CSR Committee) to oversee the CSR initiatives of the company.

The CSR Committee's duties will include developing a detailed policy to carry out its legally required CSR operations. The committee will furthermore be required to publish an annual report on the various CSR activities carried out, and it will be in charge of supervising the completion of various CSR initiatives. Under the act, it is also required that CSR policies ought to be posted on the corporate website in the style and layout that the committee has authorized. Any CSR-related recommendations made by the committee must be accepted and implemented by the board of directors.⁹The CSR committee is also mandated under the Act to review the company's net profits on a monthly basis and make sure that at least 2 percent of the same is spent on CSR-related activities.¹⁰

A wide variety of CSR activities are included in Schedule VII of the 2013 Companies Act from which corporates in India can choose. Some of the prominent of these are¹¹-

1. Combating hunger, poverty, and malnutrition; promoting health care, particularly preventative health care; and promoting sanitation;
2. Encouraging livelihood improvement programs, special education, and job-enhancing vocational skills;
3. Upholding environmental sustainability, ecological harmony, animal welfare, agroforestry, resource conservation, and soil, air, and water quality standards.
4. Establishing homes and hostels for women and orphans, as well as old age homes, day-care centres, and other amenities for elderly residents;
5. Taking measures to lessen discrimination faced by socially and economically disadvantaged groups.
6. Contribution to any other fund established by the central government for the socio-economic development, relief, and welfare of the scheduled caste, tribes, other underprivileged classes, minorities, and women.
7. Contribution to the “prime minister's national relief fund or Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund”).
8. Contributions to “incubators or research and development initiatives in the fields of science, technology, engineering, and medicine that are supported by the federal government, a state government, a public sector enterprise, or another branch of the federal government or a state government are also acceptable”.

⁹ Section 135 of Companies Act, 2013.

¹⁰ Ibid.

¹¹ Ibid and Kavita Vijay, Corporate, “Social Responsibility under Companies Act, 2013 and its Related Aspects”, available at: <https://vjmglobal.com/company-law/corporate-social-responsibility-under-companies-act-2013-and-its-related-aspects/>, (Visited on April 20th 2023).

9. Rural development projects, Slum area development, and disaster management, including relief, rehabilitation, and reconstruction activities.

6. E-WASTE MANAGEMENT AND CSR

Corporate social responsibility (CSR), which addresses environmental sustainability and corporate accountability, and e-waste management are two related concerns. E-waste management and CSR work hand in hand because ethical e-waste management practices line up with the more general objectives of business sustainability and social responsibility. Businesses can support a more sustainable and environmentally conscious society by establishing effective e-waste management techniques and incorporating CSR concepts into their operations. International standards and frameworks also provide guidance for e-waste management and CSR. The International Organisation for Standardisation (ISO) has created standards like ISO 26000 for social responsibility and ISO 14001 for environmental management systems. These standards offer recommendations for how companies should include environmental and social factors in their work, including e-waste management. It's critical for businesses to become informed about the specific e-waste management and CSR rules and regulations that apply in their country. The following describes how CSR can be used as a tool for effective e-waste management:

Extended Producer Responsibility (EPR): Several nations have adopted EPR schemes, which provide producers and importers control over the management of the collection and disposal of electronic waste produced by their products. By doing this, the burden on municipal and local government agencies is reduced, and firms are encouraged to create items that are simpler to recycle.

E-waste Collection and Recycling: Companies that produce, sell, or import electronics should be forced to allocate a portion of their CSR budgets to e-waste management programmes as part of their CSR initiatives. These initiatives consist of setting up e-waste recycling facilities, awareness campaigns, and collecting centres.

E-Waste Awareness and Education: Electronics-related businesses that make, sell, or import them should be required to devote a portion of their CSR resources to e-waste management projects. These programmes include establishing e-waste recycling facilities, awareness programmes, and collection facilities.

Collaboration with Authorized Recyclers: Companies can collaborate with authorized recyclers or e-waste management organizations to ensure the proper disposal and recycling of e-waste generated from their products. Such collaborations help companies fulfil their CSR obligations and contribute to sustainable e-waste management.

Reporting and Compliance: Companies should be required to report their CSR activities, including e-waste management initiatives, in their annual CSR reports. They should maintain records of their e-waste management efforts and ensure compliance with the e-waste management rules and guidelines.

7.E-WASTE MANAGEMENT AND CSR IN INDIA

In India, managing e-waste as part of corporate social responsibility (CSR) is crucial for environmental protection and sustainability. Due to the country's rapidly increasing electronic trash, the Indian government has realized the necessity for efficient e-waste management. Corporate companies are urged to adopt ethical e-waste management practices in order to uphold their social and environmental obligations. Here are some key points regarding e-waste management under CSR in India:

Legal Framework: The Companies Act 2013 under Schedule VII prescribes the kind of social activities, which come under the purview of CSR including “ensuring environmental sustainability” wherein e-waste management initiatives can be undertaken by the corporate houses falling within the purview of the Act. The E-Waste (Management) Rules, 2022, is the primary legislation governing e-waste management in India. It imposes responsibilities on various stakeholders, including producers, consumers, and bulk consumers of electronic goods. It also mandates that producers have a CSR obligation for managing e-waste.

Producer Responsibility: Under the E-Waste Rules, producers of electronic goods are required to take responsibility for the entire lifecycle of their products, including collection, transportation, recycling, and disposal of e-waste. They are encouraged to establish collection centers and tie-ups with authorized recyclers for proper e-waste management.

Extended Producer Responsibility (EPR): EPR is a fundamental tenet of India's e-waste management. Producers are obliged to execute EPR activities by establishing e-waste collection stations, running awareness campaigns, and guaranteeing that the e-waste generated by their products is recycled in an eco-friendly manner.

CSR Initiatives: Indian-based businesses incorporate e-waste management into their CSR programmes. These include initiatives like setting up e-waste recycling facilities, assisting awareness campaigns, and working with NGOs or government organisations for efficient e-waste management.

Reporting and Compliance: Companies are required to maintain records of their e-waste management activities and submit periodic reports to the concerned government authorities. Compliance with e-waste management regulations is crucial to fulfill CSR obligations and avoid legal consequences.

It's important to note that specific requirements and guidelines for e-waste management under CSR may vary depending on the state of India and the nature of the company's operations. Consulting the E-Waste Rules, engaging with relevant government departments, and seeking professional advice can help companies ensure compliance and implement effective e-waste management strategies.

Case studies on E-waste Management Taken under CSR

Data Direct Networks India Private Limited- In order to properly recycle electronic waste and raise consumer awareness, Data Direct Networks India Pvt. Ltd. has joined Global Waste Solution, a technologically advanced, environmentally friendly, and socially responsible PRO.

Savex Technologies Private Limited – For recycling end-of-life products and to urge all customers to join the cohesive e-waste movement, Savex Technologies Private Limited has joined a CPCB-authorized Producer Responsibility Organization (PRO) Karo Sambhav Private Limited.

Ericsson India - Ericsson India has joined an authorized, tech-enabled e-waste Producer Responsibility Organisation (PRO), Karo Sambhav for ensuring take back and end-of-life management of our products in India.

Environmental Synergies in Development- A program is being implemented by Environmental Synergies in Development (ENSYDE) and SAHAAS (a non-profit organization that works in the field of waste management) to raise awareness, encourage responsible behavior, and make it easier to collect electronic waste (also known as "E-waste") from homes and institutions in Bangalore. Through a variety of channels, such as seminars, campaigns, emails, and social media, they have contacted communities.

8. FUTURE CHALLENGES AND PROSPECTS

India's e-waste management situation offers both opportunities and challenges. India is one of the major manufacturers of electronic waste in the world, largely because of its expanding consumer market and quick adoption of new technologies. Challenges to e-waste management in India are-

Growing e-waste generation: The rapid growth of the electronics industry and growing consumer demand for electronic devices have led to a substantial increase in e-waste generation in India. However, the infrastructure and mechanisms to manage this waste have not kept pace with the rising volumes.

Informal sector dominance: The mainstream of e-waste in India is handled by the informal sector, which includes scavengers, small-scale recyclers, and unregulated dismantling units. These operations often employ unsafe and environmentally harmful practices, leading to pollution and health hazards for workers and communities.

Lack of awareness and collection mechanisms: The dangers of inappropriate e-waste disposal and the significance of recycling are not widely known in India. It is difficult to prevent the disposal of e-waste in landfills since there aren't enough collection facilities, such as collection centers and drop-off locations.

Limited recycling capacity: India's formal recycling infrastructure is limited, and there is a shortage of authorized recycling facilities with proper technology and expertise. This results in a significant portion of e-waste being illegally imported or processed in unauthorized facilities.

Opportunities and Initiatives

E-waste management rules: In 2022, the Indian government passed the E-Waste (Management) Rules, which hold producers, consumers, and manufacturers of electronic goods accountable for the secure disposal and recycling of their products. The goal of these regulations is to formalise the handling of electronic waste.

Extended Producer Responsibility (EPR): According to the EPR principle, manufacturers are required to be accountable for every stage of a product's lifecycle, including recycling and proper disposal. This strategy encourages manufacturers to set up collecting systems and partnerships with licensed recyclers.

Awareness campaigns: Several organizations and government bodies are working to raise awareness about e-waste management and the need for responsible disposal. These campaigns aim to educate consumers, businesses, and the informal sector about the hazards of improper e-waste handling and the benefits of recycling.

Formalization of the recycling sector: Efforts are underway to formalize and regulate the recycling sector by providing support to authorized recyclers, promoting investments in recycling infrastructure, and establishing mechanisms to track and monitor the flow of e-waste.

Nowadays, businesses are quick to claim that they have CSR policies in place, but statistics show that Only 24% of end-of-life equipment is currently recycled, showing that there is a lack of effective implementation of e-waste management policies by companies.¹²

There are several steps that companies should take to ensure that their activities have minimal adverse environmental impact thereby effectively implementing their CSR policies. Primary amongst these is to ensure that unnecessary physical destruction of IT products is stopped. Secondly, companies should go for recycling responsibly; if the assets cannot be donated, sold, or utilized again, they should be rather sent to environmentally conscious recyclers to ensure they do not end up in landfills. Thirdly, organizations must make sure that all of their IT assets and related processes are integrated into their corporate sustainability initiatives in order to genuinely become sustainable workplaces.¹³ Fourthly, awareness drives must be organized by companies about e-waste management and the need for responsible disposal. These campaigns should aim to educate consumers, businesses, and the informal sector about the hazards of improper e-waste handling and the benefits of recycling. lastly, it is imperative

¹²“ How businesses can help to solve the e-waste crisis”, <https://environmentjournal.online/features/how-businesses-can-help-to-solve-the-e-waste-crisis/>, (Visited on 29th April 2023).

¹³ Supra note 10

to formalize and regulate the recycling sector by providing support to authorized recyclers, promoting investments in recycling infrastructure, and establishing mechanisms to track and monitor the flow of e-waste.

In conclusion, while e-waste management globally faces significant challenges, initiatives taken by companies under respective CSR policies, apart from E-Waste Rules, EPR, awareness campaigns, and efforts to formalize the recycling sector provide opportunities to improve the situation. Continued focus on strengthening the regulatory framework, enhancing recycling infrastructure, and promoting responsible consumer behaviour is crucial for effective e-waste management.

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