

E-Waste and Climate Change: An Emerging Environmental Challenge

Udhayakumar. T¹ & Dr. K. Prabhkar²

¹SRM University udhayakumart@yahoo.com

²Professor School of Management, SRM University

Abstract

There is a very critical situation regarding management of e-waste products in India. It is because of the negligence of organizations of both small scale and large scale industries. The conditions of workers who recycle these waste products are very serious due to lesser awareness programs and lack of training. The research paper shows the status of electronic waste management and different statistics regarding the e-waste materials and what is the role of the Government in all these issues [1].

Introduction

E-waste is otherwise known as electronic waste is one of the major problems in all of the countries across the globe. Especially in India e-waste is an emerging predicament which is diminishing the quality of health and eco-system simultaneously. Lots of negative aspects can be perceived in case of the e-waste management procedures in India, particularly in the segment of inventory management [5]. Unorganized businesses employ workers who work in extreme detrimental conditions to perform informal recycling. Government laws are not adequate enough related to the management and handling of electronic wastes. There are very few programs for awareness are being conducted by the government officials, but people have to think about the gravity of these awareness programs as these programs present a broad spectrum view of discreet e-waste recycling processes to the public [7]. Significant issues that are critical in nature

are not being followed by the corporate sectors and their lack of enthusiasm is the proof of unwillingness that has been observed even in the bigger companies. The consequences of careless dumping of these hazardous materials are quite severe that cause fatal diseases to the human beings and especially to the rag pickers who expose themselves directly to these wastes. In addition to this, unhealthy conditions arise due to unorganized recycling methods that hamper the ecological balance of the nature [10].

Literature Review

This research paper is an illustration of the diverse issues and problematic strategies associated with this emerging quandary and about the various initiatives that are taken by the Government authorities of India for environment safety as well as vigorous life of people. This thesis also represents the e-waste management process currently going on in India and how can it be improved for the betterment of the surrounding. Responsibility regarding the gathering, proper disposal and recycling are presented to the manufacturers, recyclers, assemblers, consumers etc. As the industry of electronic products is on the rise, people can't keep themselves away from electrical appliances due to modernization [11]. The voluminous amounts of electronic wastes have greater amount of hazardous metals such as Aluminium, copper, gold, Iron and many others which is approximately 60% than that

of any other waste products and this fact has come to the light throughout this research. Whereas, the alarming detail about 30% plastics has also come to the front during the research. Introduction of e-waste materials has created a devastating situation which impedes solid waste management. Free trading process of these e-wastes from developed countries to the developing countries is another issue of concern which leads to complicated situations obstructing the way of waste management [15].

Methodology

Statistics of generation of e-waste by different sectors in India

Impact of e-wastes in India originates several unsolved problems for which the Government is dwelling on very seriously. From the research, it is known that 78% of computers have been installed in the sectors of business. Therefore, concerned citizens are replacing the electronic products with renewable items and non-renewable items that are non-hazardous in nature while shopping for new products and it is probably the best idea to reduce the amount of electronic wastes which is also recommended by government officials and many other environment specialists. In case of business sectors, these waste products are being auctioned to other institutes[4]. From the survey, a concrete fact about a huge amount of 1.3 million personal computers from only business fields and domestic sectors are discarded and the reason of it is found to be a factor of outdated or old-fashioned products. 1.46 million tons of these obsolete electronics create huge amount of e-wastes in India per year, this is found from the report by CII otherwise known as Confederation of Indian Industry.

Analysis and Findings

E-waste management in India and its standing:

There is a strict legislation about environmental protection by which there are rules as well as principles for e-waste and especially for the computer wastes. According to the 1989's Hazardous Waste Regulation, detection of high amount of certain substances in the waste materials confirm the hazardous nature of the e-waste. Again CPCB or Central Pollution Control Board has introduced laws that give punishments to the people who are responsible for improper style of e-waste management and disposal [15]. A nice strategy for waste management has been represented by NGOs, distribution of advanced recycling machineries and administration of general awareness programs are also being carried out. An introduction of technical guide by DIT (Department of Information Technology) is a commendable step which will lead to successful waste management [9].

Conclusion and Recommendation

Electronic waste policy is a good thinking which will diminish the higher amount of accumulation of waste products from the business sectors and household appliances. The effective management strategies along with adequate laws by the local as well as central government are the keys to an eco-friendly world. Ultramodern technologies should be evolved with the help of which safety materials can be manufactured to save the lives of recycling workers. Labels that show Eco-friendly items are a great thought that should be implemented by all the manufacturers and top-notch brands. With the help of impeccable strategies, strict policies, awareness programs and high-tech

machineries the dream of India without e-wastes could be possible [5].

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