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E-waste Management & Swachh Bharat Abhiyan

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***Abstract*-India is a big market of electronic devices. The modern and advanced electronic appliances and gadgets display a very promising picture of India. On the other hand, India's rank is very low in cleanliness. This pathetic situation shows a poor picture of India. Clean India is still a dream of our country. Recognizing the importance of cleanliness and the proper disposal of garbage, the prime minister of India initiated the Swachh Bharat Abhiyan which was officially launched on 2nd October 2014 in New Delhi. While people today are aware about this mission, electronic waste or e-Waste is still an unfamiliar term for the majority of people. The e-waste is one of the fastest growing waste streams. It contains many hazardous constituents that may negatively impact the environment and affect human health if not properly managed. Therefore, e-waste management is a big challenge and it requires the active participation of each citizen of India.**

This paper discusses the emerging issues and challenges of e-waste management in India and argues that it should be taken an integral part of the Swachh Bharat Abhiyan.

Keyword- E-Waste, Electronic Hazards, Swachh Bharat Abhiyan

I. INTRODUCTION

Advances in the field of science and technology transported about industrial revolution in the 18th Century which marked a new period in human civilization. In the 20th Century, the information and communication revolution has brought massive changes in the way we organize our lives, our economies, industries and institutions. The Prime Minister's call for **Digital India** has created great enthusiasm among people of India as well as abroad.

Digital infrastructure, delivery of services and digital literacy are the aims of Digital India and electronic presence of people will strengthen Indian democracy with highly accountable and transparent government.

It is evident that this electronic insertion will gear up the generation of electronic waste with computers, laptops, mobile phones and other telecommunication equipment are the major source of E-Waste.

E-waste consists of waste of electrical & electronic equipment that are to be rejected. India generates about **1.5** Million tonnes of E-waste each year. UN predicted said that, by 2020 e-waste from computers would jump **by** 500 percent and from discarded mobile phones would be 18 times higher than 2007 level in India. Electronic waste itself does not cause direct damage to us, but unscientific processing of this scrap is damaging to human health.

The electronics industry is the world's largest and fastest growing manufacturing industry. Recent policy changes in India have led to an arrival of leading multinational companies to set up electronics manufacturing facilities and R&D centers for H/w and S/w.

Like hazardous waste, the problem of e-waste has become an immediate and long term concern as its unregulated accumulation which pollute the environment leads to affect human health.

In today's world, Life style, wealth, expectation have been increasing which lead to more e-waste. So permeant solution shall needed. The creation of innovative and new technologies and the globalization of the economy have made a whole range of products available and affordable to the people changing their lifestyles significantly. New electronic products have become an integral part of our daily lives providing us with more comfort, security, easy and faster acquisition and exchange of information.

II. WHAT IS E-WASTE?

E-waste consists of all waste from electronic and electrical appliances which have reached their end- of- life period or are no longer fit for their original intended use and are destined for recovery, recycling or disposal. It includes computer and its accessories monitors, printers, keyboards, central processing units; typewriters, mobile phones and chargers, remotes, compact discs, headphones, batteries, LCD/Plasma TVs, air conditioners, refrigerators and other household appliances. Iron and steel constitute about 50% of the waste, followed by plastics (21%), non-ferrous metals (13%) and other constituents. The presence of elements like lead, mercury, arsenic, cadmium, selenium, hexavalent chromium, and flame retardants beyond threshold quantities make e-waste hazardous in nature. It contains over 1000 different substances, many of which are toxic, and creates serious pollution upon disposal. Obsolete computers pose the most significant environmental and health hazard among the e-wastes.

There are 10 States that contribute to 70 per cent of the total e-waste generated in the country. Among the 10 largest e-waste generating States, Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Karnataka, Gujarat, Madhya Pradesh and Punjab. Mumbai ranks first followed by Delhi, Bengaluru, Chennai, Kolkata, Ahmedabad, Hyderabad,

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Pune, Surat and Nagpur. The main sources of electronic waste in India are the government, public and private (industrial) sectors, which account for almost 70 per cent of total waste generation. The contribution of individual households is relatively small at about 15 per cent; the rest being contributed by manufacturers. Though individual households are not large contributors to waste generated by computers, they consume large quantities of consumer durables and are, therefore, potential creators of waste.

III. STATUS OF E-WASTE INITIATIVE

The Ministry of Environment & Forests (MoEF) of the government of India is responsible for environmental legislation and its control. The Central Pollution Control Board (CPCB), an autonomous body under the MoEF, plays an important role in drafting guidelines and advising the MoEF on policy matters regarding environmental issues.

Historically, in 2001 in cooperation with MoEF, the German Technology Cooperation (GTZ) began work on hazardous waste management in India through the advisory services in environmental management.

The vision of this initiative is to establish a clean e-waste channel that is a:
1. Convenient collection and disposal system for large and small consumers to return all their e-waste safely.
2. Voluntary system for modern and concerned producers to care for their product beyond its useful life
3. Financially secure system that makes environmentally and socially responsible e-waste recycling viable.

IV. OBJECTIVES

1. Reduce the risks to the population and the pollution of the environment resulting from unsafe handling
2. Focus on knowledge transfer to and skills upgrade of all involved stakeholders through trainings and seminars
3. Target mainly the existing informal recyclers allowing for their maximum but safe participation

V. FUTUREE-WASTE CONCERNS AND CHALLENGES

1. Now every people become technology oriented so, its increasing exponentially.
2. Low level of awareness among manufacturers and consumers towards e-waste disposal.
3. Major portion of e-waste is processed by the informal techniques such as acid leaching and open-air burning, which results in severe environmental damage.
5. e-waste workers have little or no knowledge of toxins in e-waste which leads to health hazards.
6. Unproductive recycling processes result in substantial losses of material value and resources.
7. No specific legislation for dealing e waste management.

WHO in its E-Waste and Child Health Initiative report has warned about these consequences of e-waste? **National** Green Tribunal has also expressed similar concern about e-waste causing broad spectrum of ecological damage.

Indian government has recognised the problem of ewaste a nd has made e-waste (management & Handling), Rules, 2011 of proper awareness among the private and government bodies the problem is being ignored. The Swachh Bharat Abhiyan puts focus on awareness and aims to ensure 100% collection and scientific processing/disposal reuse/recycle of Municipal Solid Waste.

In similar way the government has to take initiative to collect e-waste from factory, dealer/ distributor, retailer also from consumer in periodic basis so that, it will help us to manage e-waste. The government also need to perform lot of awareness program by campaigning to control over the e-waste. .

VI CONCLUSION,

The IT Sector has been playing a leading role in the growth of the Indian economy, which is emerging as one of the fastest growing economies in the world. The huge size of the domestic market coupled with the large 219 Sunita Narain, 'A different waste model', , 21 May 2010. 220 Ibid. n. 187. 110 consumer base will continue to increase the consumption patterns resulting in generation of huge quantities of waste. The unmanageable desire for comforts and wealth in the name of industrialization or technological progress and the resultant generation of waste were the things that the Father of our Nation, Mahatma Gandhi had warned the 'Europeans' against in 1938. He wrote: "The incessant search for material comfort and their multiplication is such an evil and I make bold to say that the Europeans themselves will have to remodel their outlook, if they are not to perish under the weight of the comforts to which they are becoming slaves."221 But, today, every consumer in India may as well heed this warning. Gandhi was critical of industrialism for the fact that the impetus behind it was 'greed' and not 'philanthropy' to save labour.222 Given that a certain degree of physical harmony and comfort is necessary, he had said that: "A technological society has two choices. First, it can wait until catastrophic failures expose systemic deficiencies, distortions, and self-deceptions. Secondly, a culture can provide social checks and balances to correct for systemic distortion prior to catastrophic failures."223 The future scenario has, indeed, presented both challenges and opportunities in terms of minimizing wants, managing e-waste as well as developing cleaner and more sustainable products. It is, therefore, important that viable solutions are found to address the problem of the e-waste involving skilled manpower from the informal sector of the economy and the use of appropriate technology. Besides, the urgent need for evolving sound policy and robust regulatory mechanism for safe and sustainable e-waste management can hardly be over emphasized. More importantly, the cardinal principles of accountability, transparency and sustainability need to be incorporated in any policy or regulation on e-waste to ensure its proper implementation.

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