

# How e-waste is handled by unauthorized e-waste recyclers in India

## The gaps between authorized e-waste recyclers vs. unauthorized e-waste recyclers

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### Introduction

The origin of the e-waste has been identified from the core of the electronic market. In India, the E-waste sector is considered as one of the fastest growing industry. The reason behind such situation has been recorded due to the rapid growth in the electronic market and the increasing obsolescence of the electronic waste in India especially in the relation to mobile phones that have acquired a notable place in the E-waste industry. Globally, 50 million tonnes e-wastes are being gathered and in India, the rate of e-waste has increased with 15% in the last five years (Krishnamurthy et al. 2017). On the other hand, the ways of handling can be managed in terms of controlling the hazardous impact of e-waste if it could be stored safely in the household. Thus, handling e-wastes in a non-professional manner, it could deliver negative impact to the human health and the environment as well. This report intends to evaluate the ways in which the unauthorised recyclers are handling the E-waste management in India and also sheds light on the aspects that manifest gap between the formal and informal e-waste handling in India. Thus, the relative facts are being delivered in the following manner.

### Concept of unauthorised or informal e-waste recyclers

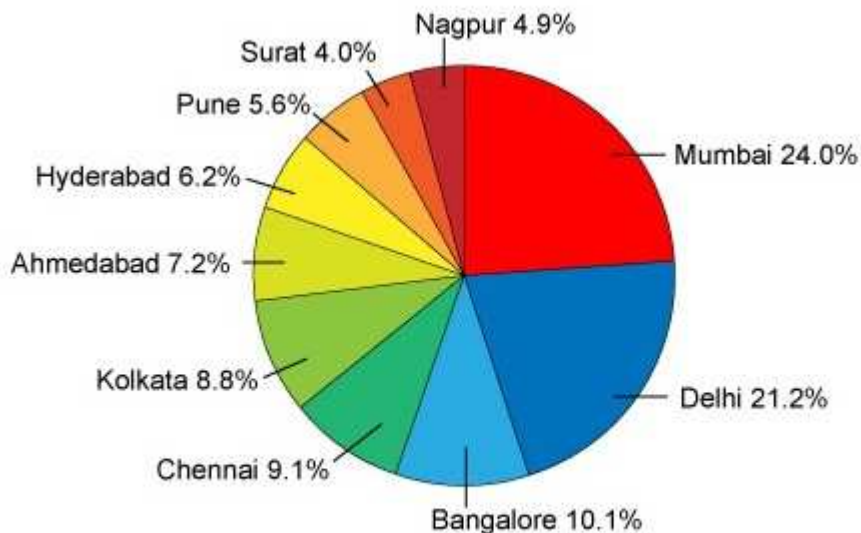
The maintenance of the e-waste management and the rules related to it has become one of the most prominent difficult challenges faced by the EEE in India. On the other hand, other reason caters to this is that many stakeholders are involved in such business and the act of e-waste management has been conducting in an informal manner since last several years. The concept of unauthorised e-waste management can be defined in terms of stakeholders who are not liable and authorised for handling and controlling certain aspects of E-waste management and consider an unsystematic and illegal way of e-waste Apart from this, unauthorised e-waste is the fact of storing the electronic items that are intended for distempering in an unhygienic manner. It is realised from the report of manufacturer's association for information technology (MAIT) that more than 90% of the e-waste materials are being dismantled in the remote colonies in the cities in an unhealthy and disorganised manner, unaware of the hazardous impact of such aspects on the society and environment as well. Another prominent challenge in this regard is that the current e-waste collection involves the monetary exchange in which the people charge money for providing their unused electronic items Such involvement increases the interest of the non-official e-waste recyclers and incorporates challenges for the government to resolve it.



Figure: figure showing only 12% of mobile phone e waste is being generated in India in comparison to other types of E waste.

Source: (Perez 2015)

The two most prominent e-waste handlers in Delhi have confirmed the fact that the cost of e-waste collection should be subsidised by the government as the whole process is observed to be cost consuming day by day. It is also realised that one of the biggest challenges for the e-waste recycler is to deal with the mindset of the common people regarding e-waste like mobile phones recycling (Perez 2015). The mobile phones are also recycled in an unauthorised manner in India as the mobile phone users sell their dismantled or old devices to local e-waste outlets in instead of providing it to the authorised e-waste collector. Such act influences the increase in the local e-waste collectors to perform the collection in an illegal and informal manner that involves monetary exchange. In this context, it is imperative to mention that due to the informal e-waste handling more than \$1.8 billion financial loss can be recorded in India only.



**City-wise E-waste Generation in India (Tonnes/year)**

Figure: the figure showing the city wise e waste generation in India. Source: (Friends 2015)

**E-waste management by unauthorized recyclers**

In India, there are several depictions about the rules and regulation in the course of e-waste management. Here the discussion can be concentrated on the ways in which unauthorised e-waste recyclers handle e-waste in an illegal and unorganised manner. From the report and survey presented by times of India in 2016, it is realised that 90% of the e-waste goes to the unauthorised recyclers (Industry & Industry 2010). On the other hand, it is also realised that most of the common people used and practice the idea of recycling through giving their unused electrical electronic equipment to a scrap dealer who eventually delivers it to an unauthorised e-waste recyclers. This is considered to be one of the unorganised methods for unauthorised recyclers to accumulate e-waste in India. Along with this, common man disposing of the e-waste materials through municipal garbage and almost 66% of the Indian population disposed their e-waste materials to their own housing premises as a garbage storing site (Friends 2015). Such delivery of ignorant and careless behaviour of the common mass encourages the unauthorised recyclers to expand their market.

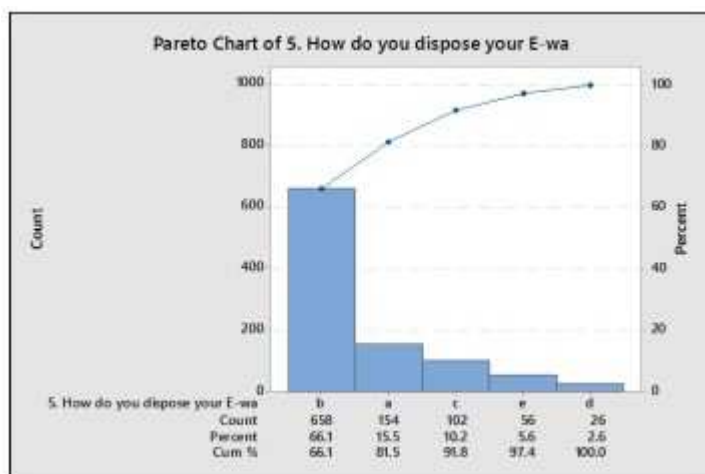


Figure: different methods of e waste handling including authorized and unauthorized. Source:Udhayakumar.T (India-Chennai E-Waste Handling Survey 2016 )

### Gap between authorized and unauthorized e waste recyclers in India

The e waste management in India has been appearing one of the most discussed challenges among the e waste handlers due to the continuous emergence of the illegal and unauthorized e waste recyclers. In 2016, 90% of the total e waste has been recorded to be occupied by the illegal e waste recyclers while the authorized recyclers hardly get opportunity to get in touch with the actual process of recycling (Imperative, 2015). The reason behind such condition has considered being the ignorance and lack of awareness regarding the legal way of e waste disposal. Thus, a gap has been identified between the two aspects which can be cited in terms of the differences of its outcomes. In relation to the unauthorized e waste recycling, it is realized that through the illegal e waste management practices the environment is able to consumer hazardous elements like lead, heavy metals, mercury, carcinogens and dioxins. On the other hand, following table would help in understanding the gap between the authorized and unauthorized recyclers.

Authorized e-waste recyclers	Unauthorized e-waste recyclers
<ul style="list-style-type: none"><li>• The legal way of managing e waste is able to provide a proper consequence to the e waste materials.</li><li>• The legal recyclers are authorized by the government itself along with the pollution control committee in Delhi.</li><li>• Most of the population are unaware regarding the source of approach in relation dismantle electrical electronic equipment.</li></ul>	<ul style="list-style-type: none"><li>• Unauthorized waste recycling delivers harmful chemical and element to the environment.</li><li>• The unauthorized waste recyclers acquire the e-waste materials from the local garbage collector (Imperative, 2015).</li><li>• Unauthorized recyclers have invested in using applications that are able to attract individuals who want to get rid of their old electronic equipment.</li></ul>

Thus, such aspects have delivered insight regarding the difference in practices of the two parties in relation to e-waste management in India Therefore, it can be suggested that more acute and strict regulations must be incorporated I the legal structure of e-waste management system in India.

### Conclusion

In conclusion, it is realised that e-waste management system in India is vulnerable to many exposures and exploitations due to the lack of awareness regarding e-waste management and disposal. Though, the common mind-set of the global population exhibits that e-waste management is such a petty topic to talk about and India is no exception in this regard. Instead of the fact that India holds the fifth place in the global market to be the producer of e-waste and more than \$1.8 billion are getting wasted each year due to improper handling of e-waste. Thus the main focus in this report has been given on the ways in which unauthorised recyclers handle e-waste and the gap of the functional difference between authorised and unauthorised recyclers in it is realised the unauthorised recycling of e-waste practices causes environmental hazards along with health effects. On the other hand, the illegal practices invite more corruption and difficulty for the authorised recyclers as the common mass is unaware regarding the sources to contact. It can be suggested that more specific and strict regulation should be incorporated in the context of restricting unauthorised recyclers in India and more survey for generating awareness among common people would help in participate in a healthy e-waste management practices.

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**Museum of Failure features Google Glass, Apple Newton:** The Museum of Failure in the Swedish town of Helsingborg has added Google Glass and Apple Newton. While the Google Glass displayed information in a smartphone-like hands-free format, Apple marketed Newton as a personal digital assistant with handwriting recognition. Notably, the Museum of Failure celebrates ideas that failed to translate into consumer hits.