

Chapter- III
WASTE MANAGEMENT IN
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3.1 Introduction

There is an increased recognition regarding inadequate waste management practice, which is the most serious environmental and health problem in village of developing countries. Since the mostly inefficient waste collection schemes generally serves only a limited section of the society, the waste is often dumped on the streets or in uncontrolled dump sites like soak pits. Absence of integration of rural sanitation health hygiene and soil waste management results increased diseases and malnutrition, increasing pollution of water bodies and over exploitation of ground sources increasing water quality problems resulting in significant impact on health and in an exponential increase in the number of problem of habitations. The situation demands immediate intervention in the management of these rapidly growing problems especially through an integrated approach for water sewage collection and treatment, appropriate handling of cattle dung and agricultural residues, (Nagar and Panchani, 2011, p. 434.).

Solid waste has become one of the biggest problems and its management is one of the major issues now days for our environment. The problem is not restricted to a single place rather it covers all parts of the environment which leads to toxic pollutants. Developing countries face major problem that is solid waste management in urban as well as in rural areas. The most obvious environmental damage caused by solid waste is aesthetic. A more serious risk is the transfer of pollution of air from improper burning of waste. Many waste activities generate greenhouse gases like landfills generate methane and refuse fleets are significant sources of Carbon dioxide and nitrous oxide. Leachate from unlined and uncovered dumpsites contaminates surface and ground water. It is necessary to have accurate information on planning a proper solid wastes management in rural areas of country. On the other hand, lack of knowledge of

the unfavourable health outcomes of solid wastes has increased the occurrence of infectious diseases, (Shah, Sharma, and Tiwari, 2012, p. 72).

3.2 Waste

Wastes are material that are not prime product for which the generation has no further use in terms of his/her own purposes of production transformation or consumption and of which he/she wants to dispose. Waste may be generated during the extraction of raw materials the processing of raw materials into intermediate and final product, the consumption of final product and other human activities. Residual recycled or reused at the time of generation are excluded.

Waste is generated in all sorts of ways, its consumption and volume largely depends on consumption patterns and industrial and economic structure in place. Air quality water and soil consumption and odours all affect our quality of life.

3.2.1 Definitions

The meaning of the term waste can be explained with the help of following definitions.

1. United Nations Environment Program

“Wastes are substances or objects which are disposed of or are intended to be disposed of or required to be disposed of by the provisions of National law”.

2. United Nations Statistics Division, Glossary of Environment Statistics

“Wastes are materials that are not prime products for which the initial user has no production. Transportation or consumption and of which he/ she wants to dispose wastes may be generated during the extraction of raw materials into intermediate and final products, the consumption of final products and other human activities. Residuals recycled or raised at the place of generation are excluded.”

3. European Union

Under the waste framework directive, the European Union defines as “an object the holder discards, intends to discard or is required to discard.”

4. Waste Management Act 1996

Waste means any substance or object belonging to a category of waste specified in the first schedule or for the time being included in the European waste catalogue which the holder in the or intends or is required to be discarded, and anything which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste until the contrary is proved.

3.3 Types of Waste

The types of waste are as follows:

3.3.1. Over production:-

Over production arises when the company is producing more than the customer really requires. This may be including both the production of the production of the products or components for which there are no orders as well as production of more items than currently needed. This is worst kind of waste. It increases rework rate. Inventory processing, waiting as well as unnecessary motion and transportation.

3.3.2. Inventory

Inventory is the quantity of items and stock, which are required to manufacture a product. These goods also cause to the company. When they are not used they utilize valuable warehouse space, may become obsolete and may require raw material which cannot be used for more important goods. Competitive organization make sure that their system controls the inventory. So that money is not being wasted on unwanted items or builds groups.

3.3.3. Defects

Rework is required when products and components are defective or damaged and they have to be reworked. Defects are caused by bad manufacturing processes. Rework costs of the products takes additional time and therefore final product. In worst case scenario the items have to be discarded.

3.3.4. Waiting Times

Each step in a manufacturing process is dependent from one area to another. Unnecessary transport usually occurs together with unnecessary movements, product damages, lost parts and systems which defect movements.

3.3.5. Transportation

This includes the unnecessary movement of information, products or components from one area to another, unnecessary transport usually occur together with unnecessary movement, product damages lost part and systems which defect movement.

3.3.6. Motion

Unnecessary movements occurs when employees is moving around his work space and effort. All kind of unnecessary motion is being caused by poor working area layout.

3.3.7. Over Processing

Over processing includes also extra steps in the manufacturing process which need to be taken. It can also mean producing products of a higher quality than required. This may be due to incorrectly used equipment, errors in reworks process design or bad communication. This can be also result of not checking what the real customers' requirements are.

3.3.8 Not Used Creativity of Employees

This waste involves code of time, skills, ideas, improvements and learning opportunities by not taking employee's opinion into the account. This is result of employees not taking part in design of manufacturing processes. Only in this way the ideas can develop which are needed to eliminate and avoid the other seven waste sources. This helps to improve your process in continuous manner by increasing the available knowledge and creativity of you employees. In addition it helps in principle to increase the level of employee's satisfaction at work. (www.manufactus.com pp. 1 to 2)

3.4 Components of Waste

a) Paper and card board

Paper and cardboard into collecting vessels located to these components of municipal waste located directly in street or in houses and in collecting yards of the city, children may dispose paper and cardboards in the school participating in the computation waste paper collecting which was held for seventh year under patronage of Preque city.

b) Bulky waste

Bulky waste in to high capacity containers located in streets in regular interval and collecting yards in the city.

c) Mixed Waste

Mixed waste in to collecting vessels located in the house equipment of every house or building or on a road.

d) Hazardous Waste

Hazardous waste the mobile collection in the stationary collecting points including yards of the city in pharmacies and at elementary and secondary schools.

e) Ferrous and non-ferrous metals, demolition waste, electro technical waste, waste from care for greenery, wood waste, tires in collecting yards of the city. ([http:// www.praha.mesta.cz/rocnky](http://www.praha.mesta.cz/rocnky) p.1)

3.5 Waste Management

The word 'waste' refers to useless, unwanted or discarded materials which are no longer considered of sufficient value and are thrown away by the possessor. Wastes include solid, liquid and gaseous. The wastes in the solid or semisolid forms are called 'solid waste'. Solid wastes are classed or refused. Refuse comprises all of solid wastes resulting from the normal activities of the community except excreta. Solid waste management is the discipline associated with the control of generation, storage, collection, transfer, processing and disposal of solid waste with the best principles of public health, economics, engineering conservation aesthetics and other environmental considerations and

that is also responsive to public attitudes. In its scope solid waste management includes all administrative, financial, legal planning and engineering, functions involved in solutions to all problems of solid wastes. The solutions may involve complex interdisciplinary relationships among such fields as political science, city and regional planning, geography, economics, public health, sociology, demography, communications, and conservations as well as engineering and material science. (Shivsharanappa and Shrioao, 2012, p. 245)

3.5.1 Definitions

Some of the definitions of waste management are as follows:

1. “The collection transportation and disposal of garbage sewage and other waste products. Waste management encompasses management of all processes and resources for proper handling of waste materials from maintenance of waste transport trucks and dumping facilities to compliance with health code and environmental regulations.” (www.businessdictionary.com p.1)
2. “Waste is defined as any matter, whether, solid, liquid, gaseous or radioactive which is discharged emitted or deposited in the environment is in such volume constituency or manner as to cause an alteration of the environment. Waste generated from commercial or industrial sources that are potentially hazardous to humans or the environment require a higher level of control and called prescribed waste or prescribed industrial wastes”(www.gallowayewm.com p.1)
3. Tamworth Regional Council defines waste management as the practices and procedures or the administration of activities that provide for the collection source separation, storage, transportation, transfer, processing, treatment, and disposal waste.
4. “The process involved in dealing with the waste of humans and organisms including minimization, handling, processing, storage recycling transport and final disposal.”(www.dictionery.reference.com p.1)

5. “Waste management in the practice of collecting and disposing of the waste produced by human activities. For example when a person buys a product and then dispose of its plastic packaging become waste once waste use introduced in to an environment it can produce many harmful effects such as the spread of disease.” (www.ecomil.com p.1)
6. OECD Eurostal Joint Questionnaires on waste, “Waste management means the collection transport, treatment and disposal of waste including after care of disposal sites”.
7. “Waste management is the collection, transport, processing recycling or disposal and monitoring of waste materials. The term usually relates to materials produced by human activity and is generally undertaken to reduce their effect on health, the environment or aesthetics. Waste management is also carried out to resources from it. Waste management can involve solid, liquid, gaseous or radioactive substances, with different methods and field of expertise for each.”(http://en.Wikipedia.org/wiki/waste_management p.1)
8. “Waste management is the collection, transport, processing or disposal managing and monitoring of waste materials. The term usually relates to materials produced by human activity and process is generally undertaken to reduce their effect on health the environment or aesthetics. Waste management is a distinct practice from resource recovery which focuses on delaying the rate of consumption of natural resources. All waste materials whether they are solid, liquid, gaseous or radioactive fall within the remit of waste management.”(www.ask.com p.1)
9. Waste management is the generation, prevention, Characterization, monitoring, treatment, handling, reuse and residual disposition of solid wastes. There are various types of solid waste included municipal, agricultural, and special. The term usually relates to materials produced by human activity and the process is generally undertaken to reduce their effect on health, the environment or aesthetics. (www.en.wikipedia.org p.1)

Consumptionless we endeavour to consume less water at over facilities less energy for over building and natural resources overall while producing green space for wild life and renewable energy in service of our customers estimating less. We endeavour to emit less by lowering emissions from over fleet and having favours relies to water, land and air from our ongoing daily operation. We promote beneficial reuse of previously discarded waste products as well as encourage and manage recycling.

Waste management practices for developed and developing nations, for urban and rural areas for residential and industrial producers. Management for non-hazardous waste residential and institutional waste in metropolitan areas is usually responsibility of the local government authorities while management nonhazardous commercial and industrial is usually the responsibility of local, national or international authorities.

Waste management is vital to the healthy functioning of a society. Throughout history sanitation issues have been to blame for disease outbreaks and epidemics in most populated region of the world. Improper waste management has negative effects on individual health and similarly it also negatively impacts, environmental health, positive waste management systems, however, can prevent the negative impact waste has on the environment recycling or reusing materials that have already been used once is an environment friendly way of utilizing waste using that decomposing organic material give off in landfills as a source of energy is another possible way for waste management to function in a green way.(www.econmil.com p.1)

What a waste this is, what hear we hear when we have spent more time, money or energy than really necessary. It is disturbing to realize that we use the same word to indicate materials that have been used are no longer wanted either because they don't work or the valuable part has been removed. In both cases the word waste is related to the way we behave in the context of the consumer society. In order for communities to functions smoothly people assume and accept the generation of a certain level of waste whole business has developed around waste management in certain cases contrary to the preservation of the

environment and natural resources leaving little incentive to permanently reduce the volume of waste generated. (www.grida.no p.1)

Municipal waste is collected and treated by or for municipalities. It covers waste from households including bulky waste similar waste from commerce and trade, office buildings, institutions and small business, yard and garden street sweeping, contents of litter containers and market cleansing waste from municipal sewage networks and treatment as well as municipal construction and demolition is excluded.

Hazardous waste is mostly generated by specific patterns of production. It represents a major concern as it entails serious environmental risks if poorly managed the impact on the environment relates mainly to toxic contamination of soil water and air.

3.6 Types of Waste Management

Generally waste could be liquid or solid both of them could be hazardous liquid and waste types can also be grouped into organics, reusable and recyclable waste.

Environmental degradation with accompanying threats to health and disruption of ecosystem is not a new phenomenon. Nevertheless, with the advent of industrial revolution and large scale adoption of technology, man now diverts vast amount of energy and material flowing through the natural ecosystems to his own use.

3.6.1 Solid Waste

One definition of solid waste management is the process by which waste materials are removed by the surrounding environment. Solid waste management is the process that oversees the control, collection, storage and disposal of solid waste. The process also includes the separation of waste materials, plus the processing, treatment and recovery of some of this waste. Solid waste management also sees to the safe transport of this waste and its ultimate disposal. Solid waste management is one of the vital services conducted by local government. (www.businessdictionary.com p.1)

Environmental degradation with accompanying threats to health and disruption of ecosystem is not a new phenomenon. Nevertheless, with the advent of industrial revolution and large scale adoption of technology, man now diverts vast amount of energy and material flowing through the natural ecosystems to his own use. (Syed, 2006, p. 19)

“The common definition of solid waste is every day household, which is collected by municipalities and disposed of in a landfill or incinerator.” (www.ask.com p.1)

Solid waste predominantly is any garbage refuse or rubbish that we make in our homes and other places. These include old car tires old newspapers broken furniture and even food waste. They may include any waste that is non-liquid.

Solid waste refers here to all non-liquid non wastes. In general this does not include excreta. although sometimes nappies and faces of young Childers may be mixed with solid waste. Solid waste can create significant health problem and of safely and appropriately. If not correctly disposed of waste may provide breeding sites for insect, vectors, pests, snakes and vermin that increase likelihood of disease transmission. It may also pollute water sources and environment.

Human activities domestics, agricultural or industrial generate huge quantity of waste. The waste generated from these activities of more advanced society produce more complex heterogeneous wastes because of living standards and changing food habits. These activities changes the quality of waste and increases quantity per capita in recent years. The solid waste is being produced since form of civilization. India is experiencing tremendous growth in urban areas, this increased urbanization associated with the increasing industrialization, man is introducing new and complex chemicals without any rigorous bioassessment of their toxicity. Furthermore continued dispersion of such materials in environment may interfere with the biological process fundamental to life. Hence, man is now facing the acute problem of environmental pollution. He has utilized science and modern technology for comfort, pleasure and betterment of living standards. The major urban environmental concerns like air pollution, noise pollution, municipal solid waste management, sanitation and

associated adverse health impacts, this increased urbanization with large population density can further intensify these concerns, unless we take urgent effective steps improve sanitation and solid waste management.(Mane and Hingane, 2012 p. 348)

a) Municipal Solid Waste

Municipal solid waste refers to the materials discarded in the urban areas for which municipalities are usually held responsible for collection, transport and final disposal. MSW encompasses household refuse, institutional wastes, street sweeping, and commercial waste, as well as construction and demolition debris. In developing countries, MSW also contains varying amount of industrial waste from small industries, as well as dead animals and faecal matter. (Matrin, 2010, p.1)

Solid waste includes all domestic refuse and nonhazardous wastes such as commercial and institutional wastes, street sweeping and construction debris. In some countries the solid wastes management system also handles human wastes such as night soil, ashes from incinerators, septic tank sludge and sludge from sewage treatment plants. If these wastes manifest hazardous characteristics they should be treated as hazardous wastes. (www.unep.or.jp/itcc/publications/spc p.1)

MSW is seen as primarily coming from households but also includes wastes from offices, hotels, shopping complexes, shops, schools, institutions, and maintenance of recreational areas. The major type of MSW are food wastes ,paper, plastics, rags, metal and glass, with some hazardous house hold wastes such as electric highlights, the main sources of MSW the waste generators and types of solid waste generated. (www.unep.or.j p.1)

Municipal solid waste management is one of the critical environmental challenges of quick urban development that developing countries, including Iran, face. One of the complicated problems of human society is his production of solid waste materials in different quantities and of varied quality. Establishing a management system of collecting and disposing the solid waste materials is of remarkable importance for the purpose of the control of production and consumption, and the process of garbage collection and disposal. The collection

and transportation of solid waste in urban areas is a very hard complicated problem. collection and transportation of solid waste management budget. Therefore, even a small improvement in the collection operation can result in an important saving in the overall cost. The total cost of the solid waste management system included the transportation cost of the waste to different facilities such as transfer stations, landfills, and incinerators and also the operational and fixed cost of these facilities. (Nadi, Shamshiry and Mahmud 2011, p. 12)

Municipal solid waste collection and disposal is a major problem of urban environment in the world today. Lack of appropriate MSW management leads to significant soil, air, water, and aesthetic pollution, associated human health problems, as well as an increase in greenhouse gas emissions. In advanced, environmentally conscious societies, MSW management is dealt with as an integrated issue, leading to MSW management solutions that are technologically feasible, legally and socially acceptable and environmental and financially sustainable. (Hadgibira, Dermatas and Laspidou 2011, p.150)

b) Industrial Solid Waste

Industrial solid waste in the Asian and Pacific region as elsewhere encompasses a wide range of materials of varying environmental toxicity. Typically this range would include paper, packaging materials, waste from food processing oils, solvents, resins, paints and sludge's, glass ceramics, stones, metals, plastics, rubber, leather, wood, cloth, straw abrasives etc. As with municipal solid waste the absence of a regularly updated and systematic database on industrial solid waste ensures that exact rates of generation are largely unknown.

Industrial waste is the waste produced by industrial activity which includes materials that is useless during a manufacturing process such as that of factories, mills and mines. It has existed since the outset of the industrial revolution. sewage treatment can be used to clean water tainted with industrial waste. some examples of industrial waste are paints, sand, papers, paper products, industrial by products, metals, radioactive waste etc. Toxic waste, chemical waste, Industrial solid waste and municipal solid waste are designations of

industrial waste. Sewage waste treatment can be used to clean water tainted with industrial waste. (www.en.wikipedia.org/wiki/industrial_waste p.1)

3.6.2 Liquid Waste

“Liquid waste can be defined as fluids as wastewater, fats, oils, or grease, used oil, and hazardous household liquid, to name a few.”

Waste can come in non-solid form some solid waste can also be converted to a liquid waste forms for disposal. It includes point source and non-point source discharges such as storm water and waste water. Example of liquid waste includes wash water from homes, liquids, used for cleaning in industries and waste detergents. (<http://www.eschooltoday.com> p.1)

There are liquid wastes in several sectors of the economy, agriculture is an important source, where methane may be captured and used as fertilizer. Waste water treated in waste water treatment plants can be an additional source of methane release in to the atmosphere, where capture and destruction or utilization in an obvious possibility for reducing greenhouse gas emissions otherwise it may be aerated to avoid anaerobic conditions and the uncontrolled release of methane. (<http://www.viwma.org/recycling/special> p.1)

3.6.3 Hazardous Waste

Hazardous or harmful waste is those that potentially threaten public health or the environment such waste could be inflammable, reactive corrosive or toxic. In many countries it is required by law to involve the appropriate authority to supervise the disposal of such hazardous waste. Ex. includes fire extinguishers, old propane tanks, pesticides mercury, containing equipment and lamps and batteries.

With rapid development in agricultural, industry, commerce, hospital and health care facilities the Asian and Pacific Region is consuming significant quantities of toxic chemicals and a producing a large amount of hazardous waste.

Hazardous waste is mostly generated by industrial activities and driven by specific patterns of production. It represents a major concern as it entails environment risks if poorly managed the impact on the environment relates mainly to toxic contamination of soil, water and air. (www.grids.no p.1)

Industrial and hospital waste is considered hazardous as they may contain toxic substances. Certain types of household waste are also hazardous. Hazardous wastes could be highly toxic to human animals and plants are coercive, highly inflammable or explosive and react when exposed to certain things e.g. gases India generates ground seven million tons of hazardous wastes every year most of which is concentrated in four states Andhra Pradesh, Bihar, Utter Pradesh and Tamil Nadu.

Hazardous waste is waste that poses substantial or potential threats to public health or the environment. In the United States the treatment, Storage and disposal of hazardous waste is regulated under the resource conservation and recovery act. The requirements of RCRA apply to all the companies that generate hazardous waste as well as those companies that store or dispose of hazardous waste in the United States. Many type of business generate hazardous waste for example cleaners, automobile repair shops, hospitals, exterminators and photo processing centers may all generates hazardous waste. Some hazardous waste generates are larger companies such as chemical manufactures, electroplating companies and oil refineries. ([www.en.wikipedia.org/wiki/hazardous waste](http://www.en.wikipedia.org/wiki/hazardous_waste) p.1)

3.6.4 Agricultural Waste

Expanding agricultural production has naturally resulted in increased quantities of livestock waste, agricultural crop residues and agro industrial by product. (www.en.wikipedi.org p.1)

Agricultural waste is any substance or object from premises used for agriculture. Which the holder discards intends to discard or is required to discard. It is waste specifically generated by agricultural activities. The proper management of waste from agricultural operation can contribute in a significant way to farm operation. Waste management helps to maintain a healthy environment for farm animals and can reduce the need for commercial fertilizer while providing other nutrients needed for crop production. Agricultural waste typically associated with includes but is not limited to manure, bedding and litter. Wasted feed, run off from feed lots and holding areas and waste water from buildings like dairy parlous. (<http://www.hrwc.net> p.1)

Agricultural waste water treatment related to the treatment of waste water produced in the course of agricultural activities. Agriculture is a highly intensified industry in many parts of the world, producing a range of waste waters requiring a variety of treatment technologies and management practices. ([www.en.wikipedia.org/wiki/agricultural waste water treatment](http://www.en.wikipedia.org/wiki/agricultural_waste_water_treatment) p.1)

3.6.5 Hospital Waste

Hospital waste is generated during the diagnosis, treatment or immunization of human beings or animals or in the production or testing of biological. It may include waste like sharps, solid waste, disposable, anatomical waste, cultures, discarded medicines, chemical wastes etc. these are in the form of disposable syringes, syringes, swabs, bandages, body fluids, human excreta etc. this waste is highly infectious and can be a serious threat to human health if not managed in a scientific and discriminate manner. It has been roughly estimated that of the 4 kg of waste generated in a hospital of least 1 kg would be inflected. (www.environment.tn.nic.in p. 119)

A modern hospital is a complex, multidisciplinary system which consumes thousands of items for delivery of medical care and is a part of physical environment. All these products consumed in the hospital leave some unusable leftovers' i.e. hospital waste. The last century witnessed the rapid mushrooming of hospital in the public and private sector, dictated by the needs of expanding population. The advent and acceptance of disposable has made the generation of hospital waste a significant factor in current scenario. Hospital waste refers to all waste generated discarded and not intended for further in the hospital. (<http://www.isebi.india.com> p.1)

3.6.6 Organic Wastes

Organic waste comes from plants or animals sources, commonly they include food waste, fruit and vegetable peels. Flower trimmings and even dog poop can be classified as organic waste. They biodegradable many people turn organic into compost and use them in their gardens.

Biodegradable waste is type of waste which can be broken down in a reasonable amount of time into its base compounds by microorganisms and other living things regardless of what those compounds may be. Biodegradable waste can be commonly found in municipal solid waste as a green waste, food waste, paper waste and biodegradable plastics, other biodegradable wastes includes human waste, manure, sewage and slaughter or house waste. In the absence of oxygen much of this waste will decay to methane by anaerobic digestion. (http://en.wikipedia.org/wiki/biodegradable_waste p.1)

3.6.7 Recyclable Waste

Recycling is a process to change materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw material, reduce energy usage, and reduce air pollution and water pollution by lower greenhouse gas emission as compared to plastic production. Recycling is a key component of modern waste reduction and is the third component of the “Reduce, Reuse and Recycle” waste hierarchy. (www.en.wikipedia.org/wiki/recyclable_waste p.1)

After the re-use of materials and products, recycling comes next in the integrated waste management hierarchy. Recycling is the recovery of materials for melting them, re-pulping them, and reincorporating them as raw materials. It is technically feasible to recycle a large amount of materials, such as plastics, wood, metals, glass, textiles, paper, cardboard, rubber, ceramics, and leather. Besides technical feasibility and knowhow, demand determines the types and amount of materials that are recycled in a particular region. Areas with a diversified economy and industrial base usually demand more different types of raw materials that can be recycled. Recycling can render social, economic, and environmental benefits. Factories that consume recyclable materials can be built for a fraction of the cost of building plants that consume virgin materials. Recycling saves energy and water, and generates less pollution than obtaining virgin raw materials, which translates into lower operating costs. Recycling also reduces the amount of waste that needs to be collected, transported, and disposed of, and extends the life of disposal facilities, which saves money for the municipalities. Recycling can results in a more competitive economy and a

cleaner environment, and can contribute to a more sustainable development. (Matrin 2010, p. 8)

3.6.8 Biomedical Waste

Most biomedical waste generated from health care facilities are at present, collected without segregation into infectious and non-infectious and are disposed in municipal bins located either inside or outside the facility premises. Sanitary workers pick this waste from here along with MSW and transport and dispose it at municipal dumpsites since the infectious in adverse environmental conditions. Moreover, biomedical waste also contains sharp objects (Scalpels, needles, broken, glasses etc.) the disposal of which poses a risk of injury and exposure to infection to sanitary workers at rag pickers working at these dumpsites. Since most of these dumpsites are unscientifically managed, the chances of pathogens contained in infectious waste becoming airborne and getting released to nearby water bodies or affecting the local resident population. (www.environment.tn.nic.in p. 123)

3.6.9 E-waste

Electronics and Electrical waste, popularly known as e-waste products, do not decompose or rot away. The information and communication technology sector in the last twenty or so in India has revolutionized life of one and all, racking a viral effect on electronics manufacturing industries leading to phenomenal growth in terms of both, volume and applications. Digital development has become the new mantra having its all engulfing footprints everywhere. The booming usage of electronic and electrical equipment has created a new but very dangerous stream of waste, called “electronics-waste” or simply known as e-waste. With the presence of deadly chemical and toxic substances in the electronics gadgets, disposal of e-waste is becoming an environmental and health nightmare. E-waste is now one of the old computers, mobile phones, television sets and radio equipment are discarded, most of which either end up in landfills or unauthorized recycling yard. (Ajeet, 2012, p. 107)

3.7 Concluding Remarks

Environment has got a very high level of importance in the life of all living things in general, and human being in particular. Here its study is considered is of vital importance. In this backdrop, the present study endeavours to examine the various issues and aspects of the waste, especially in the context of Rural Sangli District. The present chapter discusses the theoretical and conceptual aspects of the waste. It is very much useful for the theoretical foundation of the study, and makes easier and useful for the empirical analysis of the problem taken into account.

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