

Solid Waste Management A Profitable Venture and Its Mismanagement Is a Threat to The Living Beings on The Earth Leading to Unnecessary Expenditure to The Developing Economy

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Abstract:

Environmental contamination due to solid and liquid waste mismanagement is a global issue. Open dumping and open burning are the main implemented waste treatment and final disposal systems, mainly visible in low-income countries. This paper reviews on how profitably the waste resources can be utilised and reviews the main impacts due to waste mismanagement in developing countries, focusing on environmental contamination and social issues. The activity of the informal sector in developing cities was also reviewed, focusing on the main health risks due to waste scavenging. Results reported that the environmental impacts are pervasive worldwide: marine litter, air, soil and water contamination, and the direct interaction of waste pickers with hazardous waste are the most important issues. Many reviews were published in the scientific literature about specific waste streams, in order to quantify its effect on the environment. This narrative literature review assessed global issues due to different waste fractions showing how several sources of pollution are affecting the environment, population health, and sustainable development.

Keywords: environmental contamination, public health, solid waste management, sustainability, open dumping, recycling, open burning, sustainable development, hazardous waste,

Introduction:

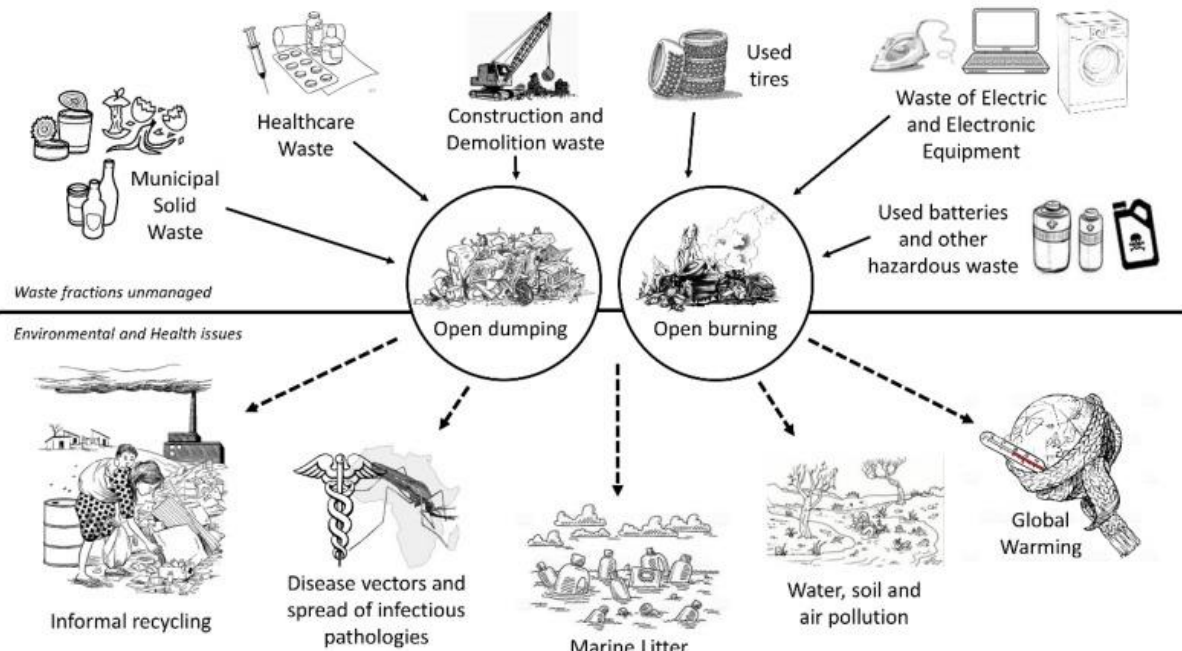
Solid waste (SW) mismanagement is a global issue in terms of environmental contamination, social inclusion, and economic sustainability which requires integrated assessments and holistic approaches for its solution. Attention should be paid in developing and transition countries, where the unsustainable management of SW is common. Differences should be highlighted between developing big cities and rural areas, where management issues are different, specifically regarding the amount of waste generated and the SW management facilities available. However, both suffer negative economic legislatives, political, technical, and operational limitations.

Literature review:

This article has collected information from secondary data i.e., from newspapers, magazines, journals and from online sources

Types of wastages:

The following picture enumerates the various types of wastes produced in the houses, industries and business houses;



Solid Waste management-A profitable Venture:

While some view it as a threat to our environment and society, the solid waste management industry sees an opportunity.

“It’s a profitable industry,” according to Debra Reinhart, a member of the Board of Scientific Counsellors for the EPA. “It’s a difficult industry but it is profitable if it’s done right.”

The following are the main sources of income to any government undertakings that indulge in the effective management of solid wastes and garbage:

1. Scrap Business:

The scrap business is sought-after as well as a lucrative business in any country. Manufacturers vastly use scrap material to reproduce different metal objects and further, it is a cost-effective way. Seeing the huge demand for manufactures, one can initiate an export business of scrap material. One can collect metal from scavengers and other small dealers and later, export the metal to foreign manufacturers. In this way, an entrepreneur can earn a large sum of money with minimal investment.

The scrap industry has the power to reduce environmentally hazardous trash and thus benefit the environment. With a small initial investment, one can start their own metal scrap business in India. Given the amount of scrap being discarded every day in India, this is one of the most lucrative businesses to choose. Metal recycling is a booming industry for many individuals, particularly in these challenging economic times. The core of the scrap industry is the recycling of discarded materials, especially aluminium. The globe over, aluminium is a metal that is often recycled. As time has gone on, the scrap

industry in India has drawn the attention of the educated classes and there have been many who have resorted to establishing themselves as prominent dealers

Business Plan for Metal Scrap Business:

Now, let us try to understand what a scrap business essentially is. Households typically keep discarding unwanted metal or plastic wares and these are sold to the scrap dealers. They recycle all the supposedly useless metals, plastics, textiles, food, etc. in this manner. Recycling entails melting them down and turning them into raw materials that can be reutilized to manufacture goods. In the industrial sector, products composed of metal or other materials that cannot be reused are referred to as scrap. To make new items, metals are melted down and recycled. Therefore, the scrap industry is a means for company owners to profit by gathering these raw materials and recycling them.

Carry Out Market Study:

Before one decides to start their scrap metal business, one must carry out an extensive market study. First and foremost, understand the scrap market industry. Not only should you have a trustworthy source of suppliers, but also you must focus on buyers who will take your recycled metals. In order to do so, one must also spend time understanding the various kinds of metals that end up as scrap. One can simply google “scrap metal near me” to identify a list of such dealers. Typically, there are five essential metals that one can readily find in the bulk of the scrap sourced from dealers. These metals are steel, iron, copper, brass, aluminium, bronze, and lead.

Segregate Scrap into Various Bins:

When one source scrap from scrap metal dealers, it is important to segregate scrap into various bins. Whenever scrap is obtained, companies utilize giant crushers and saws to break down the components into tiny parts. Steel is an alloy of iron and can be detected by using big magnets after crushing the scrap. The strong magnetic force pulls the iron and steel parts and is segregated from the rest of the scrap. Copper is generally found in wiring and high-quality electronic items such as discarded air conditioners, heaters, fans etc. Aluminium is one very common metal found in the scrap and mostly they need to be hand segregated. Aluminium is found in soda cans, medicine wrappers, etc.

Plastic Needs to Be Removed:

Other metals that one may find in the scrap include tin from tin containers, lead from bullets, bronze from bronze utensils and art work. In the process of breaking down of computer good, gold and silver are also found in small quantities in motherboards, RAMs, and other computer peripherals. One of the most common non-metallic and hazardous material is the plastic. Before any recycling of metals takes place, plastic must be removed and segregated for sale to plastic recyclers. Therefore, you should spend time to learn a lot about the different types of metals before starting your scrap company.

Purchase High Quality Machines:

After having sourced the metal scrap, one must spend money buying high quality machines specializing in segregating different metals. Remember, there can be minute dangers present when disassembling of big pieces of scrap. Hard plastic, electrical goods, glass, and metals may hurt people if they are not

separated carefully. Because accidents happen in this industry relatively often it is important to exercise caution.

Identify Reliable Sources:

Now that you have done your extensive research into your market, identify the segment you want to target. You might want to focus only on recycling aluminium or iron or copper. Trying to recycle everything in one facility requires more amount of investment. Therefore, it is prudent to identify reliable sources of these scraps. If you want to focus on recycling copper, then buying plastic scrap makes no sense. Similarly, buying a bulk of computer scrap in order to recycle steel is probably not a good business strategy. Thus, you must spend time to identify your sources of scrap. Also, it is important to keep an eye out on the market prices of these scrap items. Buying a big container of Aluminium scrap, shipped from the USA might make sense, but you must also factor in the cost of shipment and recycling. Under no circumstance should your total expenditure for procurement and recycling be more than 30-35% of the current market price of that metal commodity.

Get The Best Transport System:

Once your sources have been identified, you need a transport system to have them delivered at your premises. It is prudent to engage heavy duty trucks to carry the scrap parts to your facility. You need not have to purchase a new truck as you can simply take them on hire. In case your business is booming, it would be wise to invest on buying a new truck. Remember, scrap metals come with sharp edges. Therefore, the container part of the truck must be suitably reinforced and care must be taken so that scrap does not fall on the roads or highways during transit.

Invest in High Quality Safety Gear:

After the scrap has been delivered, it needs to be off loaded in a holding area so that it can be sent for recycling. Before any machines are brought in, manual checking of scrap is important to ensure that easily identifiable non-compliant scraps can be removed before processing. You must invest in high quality safety gear for your employees. With scrap metals segregated, it can be recycled by melting it in a furnace and using the necessary chemicals to remove slag during the process of melting. Once pure metal is obtained, it needs to cast into blocks or rods and then cooled. Metals are helpful, flexible, and essential; they are used to build ships, automobiles, trains, aeroplanes, and other things. The most prosperous recycling business is that of metal scrap. Two of the metals that are recycled the most often are aluminium and steel. The characteristics of the metals are used to classify them. After collecting all metals, sort the scrap metal into categories that can be recycled and those that cannot. A high grade can only be produced by using high-quality original materials throughout the recycling process.

Advertise Your Products or Business:

Now that you have produced the recycled material, you must have your buyers ready. For this, it is important to advertise in as many forms as possible. Remember, your company is not profitable unless your products are sold as a premium. For the same, it is important to develop a network of scrap dealers from whom you can source cheaply and sell the recycled products to companies at a good price. It is important to note that you must always be on your toes and spend a lot of time networking to ensure that your products do not sit in the warehouse for long time.

Set Up a website:

It would be prudent to set up a website, actively managed by your employees so that your company is traceable on the internet. Remember, now people often turn to the internet to buy or sell goods. Having a good review from your clients will always instil confidence in your buyers and make transactions more fruitful.

Scrap metal prices vary depending on the purity of the product. Right from the time you buy your scrap to the time you sell it; you must be aware of what you are sourcing and how pure a metal you are selling to your clients.

2. Electronic Recycling Business:

Once the electronic items break down, many people dispose of the electronics. People are not aware that electronics can be repaired and refurbished. Thus, starting a business in electronic recycling can be good. Other than refurbishing electronics on one's own, selling the large accumulated chunk of broken-down electronics is also an option. So, there are two vocations available under the business that is: dealer and manufacturer.

3. Plastic Recycling Business:

Plastic is a non-biodegradable item and thus, can be recycled. It can be melted down and remoulded into different shapes. Now, enormous products come in plastic coverings, which are disposed of later. For collecting plastics items and melting them into definite shapes, one requires a huge amount of plastic. One needs to build contacts with scavengers who can collect and sell the plastic items at a lesser rate.

4. Rubber Recycling Business:

Like plastic accumulation, rubber is also a sought-after product in the market. Rubber is mainly used to make railway equipment, plastic products, and lots more. By collecting disposed of rubber articles, one can start the rubber recycling business or else, sell the accumulated chunk of rubber to manufactures at a high price.

5. Medical Waste Disposal Business:

A large amount of waste is generated in the medical industry, throughout the year. This waste needs to be regulated; otherwise, it gives rise to diseases and epidemics. The medical professional disposes of many things namely blood, fetus, dead cells and even, body parts. The medical waste should be disposed of properly and for this, one can start a medical waste disposal business.

6. Oil Spill Cleanup Business:

In oil extracting areas, oil spillage happens while extracting the oil. The companies, which engage in oil mining areas, require oil spill cleaning services. Primarily, the cleaning services help to remove spillage marks which are caused by offshore oil mining processes.

Entrepreneurs can start the waste management startups. These waste management solutions do not require a large amount of financial capital. Further, one does not require a skill set to initiate a waste management business. With little guidance and industry knowledge, one can start the waste management businesses.

Effects of poor Waste management:

Poor Waste Management has multiple effects on environment. It not only ends in a disgusting view but also affects the overall economy of a country. The damage is not just for humans but also for animals that are dependent on environment. The waste produced and mismanaged, are a great threat to air, water, and land. There are multiple ways of waste management like incineration, recycling, biological processing, energy conservation etc. But still the poor waste management continues to plague us.

- Soil Contamination:

Contamination occurs when hazardous substances are spilled or buried in the soil. When the pollutants like metro- chemicals, chlorinated solvents, pesticides, etc. get settled on the soil. This results in absorption of contaminants in soil that further damages the animals and humans consuming the plants grown in this soil.

- Water Contamination:

Water is one of the majorly consumed substances. The contaminants get dissolved in this excellent solvent. The toxic seeps into the water streams and water bodies, causing damage to the marine life and the humans who consume water.

- Emission of Green House Gases:

Due to poor waste management extreme climate change is observed these days. Harmful greenhouse gases are created from decomposing waste. This results in adverse weather reactions like storms and typhoons. From acid rains to severe hail storms or global warming everything can be framed under active thermal pollution.

- Air Contamination:

When paper and plastic are burned at the landfill, the chemicals along with methane gas are released which accumulate and deplete the ozone layer. The improper waste management causes chemicals like dioxin and thus contribute majorly in global warming

Conclusions:

The article presented a narrative review about environmental contamination and how the wastages can be converted into profitable business and at the same time social issues in developing countries due to SW mismanagement. Results show that the SWM system should be considered in an integrated manner in order to cope with the reduction of the environmental footprints and to improve the targets of business undertakings exclusively involved in the separation of different variants of scrap and waste materials. Stakeholders and governments should know that SM is a complex system that involves environmental, social, and economic issues, which should be evaluated holistically for improving the life cycle of waste, reducing water, soil, and air contamination due to open burning and open dumping, practices widespread worldwide. However, there is a big bridge between expenditure and income generation. The proper treatment can lead to income generation but its improper treatment will have a big economic burden to a developing country. It consumes large amount of public fund that may even override the little income generated by way of its recycling or proper treatment.

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