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Advanced Waste Management- Need of the Hour

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Abstract

The problems of waste generation and management has become a serious issue of concern to many scholars in environmental studies. This paper critically examine the attitude of urban dwellers to waste disposal and management. One hundred and fifty copies of questionnaire were administered to residents in the area. Information such as the various classes of waste, frequency of waste disposal and methods of waste evacuation were obtained from the questionnaire. Finding revealed that family size has a great influence on waste disposal and generation which was evidence in the hypothesis with a calculated value of 7.32 greater than the critical value of 2.43 at 0.05 level of significance. Besides, environmental enlightenment has changed people's attitude towards waste generation and management in the area. This was affirmed in the calculated f-value of 3.18 greater than critical t-value of 1.97 at 0.05 level of significance. However, this result indicate that effective environmental enlightenment would help avert the attitude of urban dwellers to waste disposal and management in the area.

Key Words: Urban dwellers, waste generation, attitude, waste disposal, human ecosystem.

Introduction

Waste management is an important part of infrastructure for cities, towns and countries. Many consider today's society to be a throwaway society where commodities are so inexpensive that it's easier to throw things away that don't work (rather than fix them) and the convenience of disposable items fits with a person's busy lifestyle. Many people stuff everything they don't need into a trash bag and put it outside their home once a week and don't give it

another thought. The result of that thinking is that waste management is huge resource glutton that takes people, money and fleets of vehicles to manage.

Managing waste at landfill sites is a detailed job. Individuals should sort their garbage and recycle wherever possible. Composting and recycling are very helpful in the reduction of solid waste. Self-serve landfill sites often have a place for people to put their hazardous waste, glass recycling, newspapers, metal recycling as well as old appliances, tires and other goods. If your garbage is picked up for you, you should have a recycling program also. If you live in an apartment and recycling services are not offered, you need to inquire about them so that they are put in place.

Recycling Our Way to a Greener Planet

Recycling is the act of reusing products rather than simply disposing of them after you use them. To recycle is extremely helpful to your environment. The manufacturing process requires a lot of energy and raw materials. This uses up valuable resources and can also harm the environment. Once those goods are made and then used, many of them are simply discarded. The process of recycling them either in your home for other uses or having them sent to a recycling facility to be either reused or made into something else is a responsible and commendable act. Simply recycling household items such as clothing, cans, bottles and paper goods can make a huge difference.

For generations, most people simply put out the trash without giving a thought to where it went. Consequently, landfill sites are overflowing and garbage is a huge problem. Many cities have simply run out of places to put their trash and as a result, some companies and trucking companies now exist simply for the sole us of transporting garbage to other places. Small rural communities are protesting in various places in such as in northern Canada because new landfill sites or old mining sites are being used to house the garbage of large urban cities. A great amount of this trash could be recycled or composted but ignorance and laziness create a big

problem. Many individuals don't take the small portion of time it takes to sort their trash and recycle. This problem exists all around the world.

Many places offer curb side pickup for recycling. Sorting your recyclable goods such as newspapers, glass and metal containers into a box allows facilities to sort and put them through their facilities to either wash and reuse them or manufacture them into other useable goods. Many products go through a recycling process several times before they're rendered useless. Some areas require recycling by law and will not accept trash bags that have recyclable goods in them.

Glass Recycling - Key in Environmental Responsibility

Glass products are widely used throughout the world for storage of food, beverages and household and industrial products. Glass also used in dishes, and throughout your home in decorations or as windows for your home or vehicle. When a glass item is no longer useful to you, glass-recycling facilities exist to allow the product to be reused.

Glass is one of the most reusable products there is. Many recyclable items have a short lifespan and break down each time they are recycled or down cycled. This isn't the case with glass. Glass recycling can occur repeatedly and indefinitely, as there isn't a deterioration or

breakdown of glass particles. Glass can be cleaned, broken, crushed, melted and reused for multiple purposes.

You can help your environment by recycling your glass. A large portion of landfill sites is filled with glass bottles, containers and other glass goods. These take up a large amount of resources to bring to the landfill and a vast amount of space to store. Because they aren't biodegradable such as organic waste, they create a space issue. By recycling your glass, you are not only saving space at landfill sites but also saving the environment. Glass furnaces used to create new glass use significantly more energy and create toxic fumes rather than the much smaller amount of energy required to reuse that glass product.

You can return glass bottles for beverages such as soda pop to many facilities for a refund in many areas. Or, you can prepare your glass products for curb side collection or drop off at a recycling facility. Cleaning out your containers and removing lids and labels is very helpful as well as sorting via coloured versus non-coloured glass. Different types of glass can be used for various things so where your facilities exist, be aware of their sorting preferences. Some recycling plants do all the sorting for you whereas others require more care.

Because glass is so reusable, consumers who practice recycling are helping drive down the cost of virgin glass products. Glass products have been used over history and continue to be a renewable resource for us. Glass is used in many industrial and construction fields as well as for food storage. A recent problem is the CRT (cathode ray tubes) glass used in electronics such as computer monitors. Efforts are being made to find ways to better recycle this glass, as it isn't as readily reusable as other glass products due to special anti-radiation coatings that are used to protect consumers.

The Importance of Industrial Waste Management

It takes a lot of valuable energy and materials to create and manufacture products and the resulting industrial waste can be difficult to manage. Many cities and countries have put new laws into place to heavily tax companies that produce excess amounts of waste or create potentially harmful effects on the air and ecosystem. The extra taxes help to offset the environment damage by going toward environmental restoration, protection and spreading information to increase knowledge on these issues. People and companies need to educate themselves about the environment. Smog alerts in many cases result from not only harmful transportation emissions but also from the output of factories into the air we breathe.

Companies need to be responsible with their industrial waste management and specifically their hazardous waste. Many local governments provide counselling, consulting and recommendations to organizations on what they can do to better manage their waste and plan for a more environmentally friendly production processes. More than ever, there need to be consequences to companies that do not take waste management seriously. Part of this includes reducing harmful emissions into the environment over a period of time and correctly disposing of waste materials.

Countries have terms and conditions about what is acceptable in terms of waste management. Today, more than ever, industries know their impact of manufacturing on smog levels and the escalating cost of managing their waste. More industrial leaders are showing their accountability for the environment. Citizens need to support companies whose business practices include environmentally conscious and responsible conditions. Using energy more efficiently, reducing the hazardous waste they output into the air and to the landfills and practicing composting and recycling are key factors in improving the way waste is managed.

Companies who have no choice but to continue creating hazardous industrial waste due to the nature of their business need to ensure that they properly dispose of that material and are upfront an honest about the contents of their vehicles, their facilities and management of the waste. Environmental protection acts encourage and reward companies who do their part to more effectively manage waste and work with environmental agencies to maximize efforts to minimize the impact on the environment. Industrial waste producers need to pay for the disposal

of their materials and in particular, need to take caution in the way they dispose of hazardous materials. There have been cases documented of companies mislabeling goods and of irresponsible practices leading to contamination of local watersheds. The more that citizens and government push for reform, the more companies will realize that they are accountable for their industrial waste.

Brownfield Sites, Regeneration and Conservation

Brownfield is the name given to a piece of land that was previously used but may now be considered contaminated due to industrial use. The level of contamination can vary. Some countries such as the United Kingdom prefer to refer to these sites as PDL (previously developed land) sites but these terms in essence refer to the same land. Brownfield sites may be places that were previously industrial factories or locations that might have had waste stored at that location or been subjected to many types of hazardous or potentially hazardous chemicals. While most brownfield sites exist in industrial neighborhoods, some do exist in residential areas in older stores and small factories.

There are many brown field initiatives to reuse these locations or regenerate them in a way that is an improved situation for the environment. Some cites offer incentives to builders and real estate developers to use previous brown field sites for new residential and commercial building projects so as not to disturb other areas that are already green space and subject the city to more development. The issue with this is the potential for liability later, should health problems occur as a result of the site's previous status. Some brown field sites have hazardous materials buried there or have contaminated watersheds. Initiatives to either regenerate these properties or leave them vacant while they regenerate themselves can have positive effects on the environment and ecosystem. Some brown field sites are becoming conservation areas or parks to enrich communities. It's a positive thing that sites are designated in this manner for those interested in using it. It's important to know when building a structure such as medical facility, school or residential home what that location was previously used for and if there's a possibility of associated health risks.

Other classifications of land or property exist such as Greenfields and Greenfields. Greenfields are empty lots that contain outdated buildings or unused space but not due to possible contamination. These may simply be in an area that is not booming or has few amenities to attract buyers or leasers. Greenfields are areas designated to stay green or to be environmentally protected such as conservation areas or greenbelts. Many cities have initiatives to either use Greenfields as a last resort after Brownfield and Greenfield locations. Other locations are protected in order to remain or become permanently protected green space.

It's important to environmental planning and improvement that classifications such as brown field sites continue to exist in order to keep the public informed.

Nuclear Waste Disposal

The management of nuclear waste disposal is frightening for many people. People are concerned because of the scale of problems that would result from human error. Errors that have occurred in the past frighten individuals into thinking that nuclear energy and nuclear products should be avoided. Also, because nuclear power can be harnessed into weapons of mass destruction, this has made nuclear a feared word.

Nuclear waste can be dangerous. Radioactive products, nuclear byproducts resulting from use in modern medicine, and products such as uranium, and plutonium are a concern. Responsible management of these products is crucial to environmental safety and the safety of residents.

As many nuclear power plants are coming to the end of their lifecycle, citizens are concerned with how they will be managed. Nuclear waste is stored and the concern of a leak or accident is very troubling. The fact is that organizations responsible for the management of nuclear waste disposal are accountable and run under very detailed and careful processes and regulations with inspections and detailed safety measures. Nuclear energy is clean and safe. Stories about situations like Chernobyl in the former Soviet Union frighten people. In that situation, the lid from a Nuclear reactor blew and the resulting fire and radioactive contamination that spread resulted in many deaths. To this day, 3,000 square miles around that power plant remain quarantined due to the contamination. Accidents do happen but overall the management of nuclear waste is handled responsibly. Unfortunately, what happened at Chernobyl taught lessons to power authorities on how handle such situations and has helped to prevent such things from occurring on a larger scale.

In managing nuclear waste, some products are buried in sealed containers for either long term or short-term storage. Other products go through a process of transmutation. Transmutation takes the nuclear waste and transforms it into a less harmful product or to a product with a shorter shelf life. All in all, most countries through careful processes are very responsible about nuclear waste disposal.

Conclusion

A continuing rise in the rate of waste production is no longer acceptable – hazardous waste affects the health of millions of people and poisons large areas of our planet. In many places people live surrounded by garbage and landfills. It is essential that governments and

corporations face up to waste, using what we know about reduction, recycling and reuse, but also developing new technologies that eliminate waste.

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