



United Nations Commission for Social Development

Topic B: Waste Management

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Waste Management

Introduction

The modern rise in urbanization coupled with consumerist ideology had lead to a serious problem of effective waste management. Throughout the world, where there are settled societies waste is produced and accumulates, either being left to rot or being removed to landfills, recycling centers and incinerators. With the rise of the middle class and increasingly industrialized nations, more is being discarded every year and the issue of what to do with our trash becomes more pressing.

Leaving waste, whether solid, liquid or gaseous, to simply contaminate the environment and our cities is not an option as it leads to massive public health and environment concerns. Meanwhile, landfills are quickly filling up as we try to avoid the pollution made by simply burning or dumping our excesses. New solutions need to be found to properly deal with all the waste made by our nations or we will quickly find ourselves no longer able to consume. Only by working to find new solutions for managing our wastes will we be able to ensure that continued improvements in living conditions for all are sustainable.

As the Commission on Social Development, we must remember that waste management is a serious threat to both newly developing regions and to the highly producing developed nations. The buildup of trash promotes sickness and poverty while concurrently damaging infrastructure and hurting the economy. As such, it is necessary to standardize and outline minimum standards for proper disposal to help ensure the continued successful development of our world.



Background

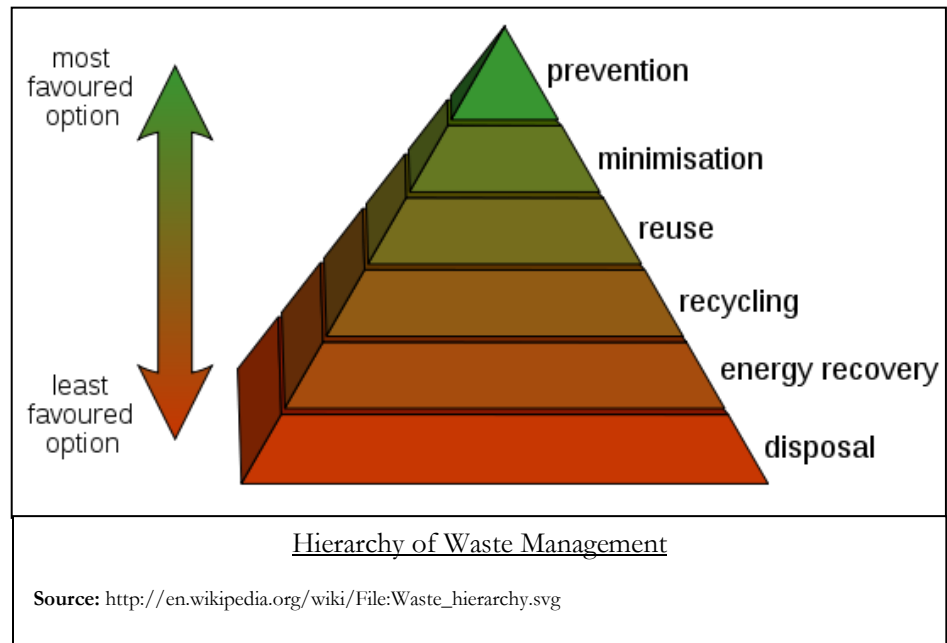
The first recorded issues with trash date back to 10,000 BC when the very first permanent societies seem to have begun forming. As humans no longer moved, they were suddenly faced with the problem of having waste build up in their compounds. This issue continued to expand along with urbanization as people gradually began to live in larger and larger settlements, thus making it more difficult to handle to ever increasing byproducts of civilization. Not only did waste detract from general cleanliness of a town or city, but it could even degrade infrastructure by clogging drains and making roads impassable.

Waste management refers to the concerted processing of human by-products whether by individuals, groups or governments. This can include transport, recycling, and disposal, and is often undertaken for health or aesthetic reasons. Additionally, 'waste' can be classified by state (solid, liquid, gaseous, radioactive or energy), by effect (hazardous, non-hazardous, et cetera) or by origin (mining, factory, et cetera).

Depending on the resources available, trash can be handled in many different ways. These can be sorted into 'waste hierarchy' based on the amount of harm each methodology does to the environment. This is often known colloquially as the "three Rs": Reduce, Reuse, and Recycle. When this is impossible, one continues further down the scale to: Generate, Incinerate, Devastate.



“Reduce” refers to all efforts to minimize waste as it is created. This involves systematically working to try and use resources less or more efficiently and thus make less trash. By doing this successfully, a lot of the



burdens of necessary waste management are reduced as less resources need to be allocated towards the subsequent transport and disposal of what by-products are made. This can include taking steps to minimize food spoilage, or using public transportation in order to utilize fuel for efficiently and pollute less per person.

“Reuse” assumes that waste has already been created and aims at trying to find productive uses for these unwanted by-products. Ideally, a reusable item is one that conserves enough of its utility that it never needs to be turned into trash despite being consumed. However, in some cases this applies to finding new uses for a ‘used’ product. For example, many food wastes can be composted to make fertile soil to grow more food or old clothes can be handed down instead of thrown out. However, this necessitates careful separation of wastes or repairs to increase the usage life of items.

Moving on, “recycle” tries to use some wastes to create a new product. Unlike reusing, this involves using energy to create a new item out of the trash, thus creating some new by-products in



the process. Additionally, it often fails to completely utilize a full waste item, leaving parts of it to be otherwise disposed. For example, while the plastic in bottle may be recycled and melted down to form new bottles, the paper labels must still be discarded.

“Generate” attempts to recover energy or resources from our by-products to more efficiently produce new goods. While the waste itself often still remains after this process, it simply aims to get more utility out of the trash before it is thrown out. In the biological realm, this includes digestion whereby animals extract nutrients from food before leaving the solids it cannot use as they are. Industrially, this can include methane collection efforts wherein natural gas is collected from rotting waste to help power industry. This also includes gasification wherein trash is burned down to its basic elements to create a renewable source of energy.

When there is no way to recover utility from our waste, it is best to try and incinerate it. This involves using oxygen to turn the trash into heat, steam, ash, and gas. Naturally, this does pollute, but results in less use of resources such as land and has a less direct effect on the environment than mere dumping. However, this often requires large amounts of energy, making it impractical for those countries lacking the resources to finance such operations.

Finally, the most common way of dealing with waste is simply to dispose of it, referred to as “devastate” due to the impact this has on human life and the environment. The most common example of this is the use of landfills, which accounts for 54% of the United States of America’s waste management plan. These often are poorly designed and lead to the creation of noxious and greenhouse gases, the attraction of vermin, the seepage of liquid leachate, and the damaging of ecosystems through litter.



Now, it is important to remember that before any trash can be processed, it must be transported. This is done very differently in many parts of the world. In the very worst cases, transport mechanisms are absent altogether, leading to the harmful accumulation of waste immediately in the living environs of society. This often results in widespread health concerns, including those exemplified by the smog created over Los Angeles and Beijing. When present, transport helps remove the side-effects of poor waste reduction from peoples' homes, though does not directly eliminate the problem.

Many developed parts of the world have highly organized and efficient methods for effectively transporting residential waste. This most commonly involves curbside collection, wherein government-run or sponsored companies pick up trash directly from households. In Australia, each home comes with three bins for: recycling, general waste, and compost. This relies on user motivation to sort the trash, but makes it easy to do so. Meanwhile, in Taipei, the government provides incentives for sorting and waste reduction by only picking up trash in government issues bags, then charging for each bag taken. Thus, if you throw less away, you have to pay less, leading to increased recycling and composting as a way of avoiding government fines. Finally, in the United Kingdom, the government itself has taken on the burden of organizing waste by directly sorting everything collected into organic and inorganic, then using the by-products to generate power and recycle.



Current Status

It is no secret that waste control is a serious problem for our modern world. In China alone, with its population of 1.2 billion people, the trash generated by power and goods generation as well as household consumption is incredible. Moreover, this issue is not restricted to developed countries, as many developing economies are still experiencing either a growth of cities or increasing consumption accompanying population growth, thus leading to endemic waste management problems. Thus, to successfully debate this topic, you will need to have a firm understanding of your nation's policies regarding this issue, as well as the resources you have available to combat it.

One major concern is the updating of existing waste management solutions, including old landfills and incinerators. Modern procedures allow contamination from landfills to be greatly reduced while concurrently collecting gases for energy production. This makes landfills far more friendly to public health and the environment, but poses difficulties in the needs to rebuild them from the bottom up.

The United Nations has made efforts to deal with human by-products across several of its bodies including UNCSD, UNEP, and ECOSOC. For example, just last year UNEP launched the Juba Clean-Up project in Southern Sudan. The city of Juba had suffered from repeated outbreaks of cholera and other diseases due to the lack of a waste management system. Once again, it is important to note that had this been in place as the city first grew, not only would there have been less trash to begin with, but it would never have accumulated to fatal levels. In any case, on November 23, 2009, UNEP mobilized over 16,000 volunteers to help counteract the dumping of waste in nine of Southern states in the nation. This is the first step in a sustainable social



development program for the region, focusing on initially counteracting the negative health affects of city growth.

While many of the UN's endeavors like the one in Sudan have been successful, a more centralized and united response is necessary to combat the ever growing problem of waste around the world. The first thing that will need to be addressed are sources of funding for the massive infrastructural and damage control projects that will need to be undertaken. To do this effectively, research will need to be taken to better understand the full life cycle of products as they are used and affect the environment. For example, while a hybrid car may use less fuel during home usage, it requires far more energy to produce and to dispose of due to its advanced electronics and large battery, which may negate the environmental benefits of using it. By then factoring in the costs of waste management into the price of each item or commodity governments may find a sustainable source of income to pay for disposal. In essence, this would amount to taxing each good according to how much it costs to deal with it when it is thrown away. This is called the "polluter pays" principle as those who consume an item need to cover the costs of its disposal. The implementation of such a system would require a lot of government oversight, but is easily scalable from the individual homeowner (who would simply pay more for less sustainable items) to large firms. It also places the main burden of cost on private individuals and entities, but could hurt demand in an economy due to raised prices.

Another concept called "extended producer responsibility" places the burden on producers to organize for the management of the disposal of all their products. Many companies have begun to do this voluntarily by offering to collect used goods and recycling them personally, such as HP with its empty ink cartridge program. However, for this to truly be sustainable and useful this would need



to be mandated by the state, and would require major changes in the way trash is sorted and collected. Furthermore, this may affect supplies of goods as companies would be able to produce less of an item due to their higher unit prices.

The last way in which waste management can be mandated is through education of the public. The current “green” and “organic” movements in the United States are good examples of this, wherein consumers themselves choose to incur higher costs by buying more expensive goods that are better for the environment. While this does not directly affect the quantity of trash generated, in theory it should limit waste created during production of any item in question. However, a government could also directly tax people for their by-products, as Taiwan does when it charges per bag of trash it collects. This tends to provide a strong incentive to recycle and reuse as ways of minimizing how much waste is produced, but may also contribute to illegal dumping in order to avoid taxes and would thus need careful monitoring.



Bloc Positions

In general, all nations support improved waste management. The differences lie in existing infrastructure and the ability of individual states to deal with their refuse problems. For example, while Israel has a highly developed system for disposing of trash, many other nations lack such methods. Also, while much of Africa simply lacks the money to manage their waste, Asia is simply producing too much to be easily managed. As such, each nation needs to judge individually how they can still improve and how they can help.



Question to Consider

1. What are the side effects of improper waste management?
2. At what levels of production can waste be minimized (production, consumption, disposal)?
3. What are the main advantages and disadvantages of the “polluter pays” and “extended producer responsibility” concepts?
4. What systems of waste management are already present in your nation and which ones are still underdeveloped or missing?
5. How could the UNCSD develop standards for waste management?
6. What is the most important measure for waste management (land used, public health, environmental impact, et cetera)?
7. How can non-solid wastes be bettered monitored and controlled?
8. What forms of aid can be given to developing nations and areas as they work to manage their refuse?



Terms to consider:

1. Re-think
2. Precycle
3. Carpool
4. Efficient
5. Environment footprint/foodprint
6. Repair
7. Composting
8. Regift
9. Upcycle
10. Source reduction
11. Pollution prevention
12. Recover
13. Litter
14. Collection
15. Biological reprocessing
16. Energy recovery



Recommended Sources

1. **Timeline of Waste Management** < <http://www.timeline-help.com/timeline-of-waste-management.html> >
2. **US Aid** < http://www.makingcitieswork.org/urbanThemes/environment/waste_management >
3. **UNCSD Resources**
 - a. http://www.un.org/esa/dsd/csd/csd_csd18_rims.shtml
 - b. http://www.unep.or.jp/ietc/Publications/spc/IWM_scoreboard-binder.pdf
 - c. http://www.un.org/esa/dsd/susdevtopics/sdt_wasthaza_ss0110_presentations.shtml
 - d. http://www.un.org/esa/dsd/susdevtopics/sdt_wasthaza_ss0110.shtml
 - e. http://www.un.org/esa/dsd/susdevtopics/sdt_pdfs/meetings2010/ss0110/Presentation_Ianthe_Smith.pdf
 - f. http://secint24.un.org/esa/sustdev/csd/csd13/casestudies/case_studies_sanitation.htm



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