

# Understanding Waste Management – Part 1

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## Introduction

Waste Management is a widely and frequently discussed subject in all social and public forums today. We keep hearing about ever increasing levels of pollution in the air, water and land everyday and its negative impact on life on the planet. We also keep hearing about the depleting resources of the earth as we make technological progress.

We shall try to simplify these aspects and explain in logical manner to understand what the fundamental issues in waste management today are.

As the life grew on the planet, so did the requirements to support the various life forms. Therefore Oxygen (from the air), water (from rivers, lakes ) and food consumption grew accordingly. Progressively life evolved through the ages, and secondary consumptions of other resources also started growing. As the civilisation progressed and living standards improved, these secondary consumptions grew exponentially.

As we know today, in order to provide consumption of any item, it has to be produced, processed, manufactured, developed, packaged, transported, stored etc etc. All these activities apart from producing the intended item, also produce significant quantity of un-intended items, which we term as waste. These could be agricultural waste, metal waste plastic waste, fuel waste, combustion waste etc etc. The basic life form, ie our bodies also become a waste after the life ends.

Traditionally over the ages, when the population on the planet was not much, these wastes were disposed in various forms on the planet surface in the water bodies, on land, buried under the land etc , without much issue.

Also as the standard of life improved, we started developing and using many items which need high quantity of natural resources to produce. This exploitation of natural resources started impacting the ecological balance of many of nature's wealth, and also started producing high quantity of waste materials.

## Modern Era Issues

As science and technology made rapid progress during the past 150 years or so, the quantity of waste generation also grew exponentially. This necessitated the need for controlling and treating these wastes. We learnt from many bad experiences over the past century of the negative impact of the various wastes on life forms on the planet.

As a result attempts were made to characterise different wastes and find methods to deal with these wastes. As a first step wastes were categories into three broad categories:

- a) Liquid wastes, comprising waste water and other waste liquids
- b) Solid wastes
- c) Gaseous wastes which are emitted into the ambient air

Regulations were developed to monitor these waste streams with respect to the constituents and overall quality of the stream.

Simultaneously techniques were also developed to make these streams fit for discharge into atmosphere by suitable treatment methods.

Different nations on the planet developed their respective regulations and limits of pollutants over time, based on the need as understood at that time.

Therefore in our country today we have legal provisions or acts pertaining to control of Water pollution, Air pollution, and Hazardous waste control. These acts specify how the waste generators need to abide by the relevant rules during their economic activities and control pollution as per specified limits. However in spite of having these legal and administrative

mechanisms in place, we find that the waste generation and accumulation keeps on increasing, and impact on the environment keeps on becoming serious by the day.

In our country there are certain areas where the legal provisions have not been applied or are unable to regulate the requirements under the acts. Municipal waste piles in all our cities and towns are a stark example of this inability to regulate and control pollution and waste generation. Another area of serious concern is the state of all our rivers in the country. The water quality in these rivers is way below the recommended acceptable quality fit for use by living beings.

Owing to our innate inability to regulate, each new technological development is bringing a new crisis to our already burgeoning waste management problem. Computer and Information Technology developments have brought their own challenge of e-waste handling and management.

Thus the waste management area requires a very open and future looking approach at all levels, ie generators, regulators and public at large to have adequate and effective regulation and control to minimise the adverse impacts to acceptable levels.

The current status clearly proves that the present approach or lack of it, is ineffective in securing the acceptable and expected results in the area of waste management.

In the coming issues of the newsletter, we shall discuss and describe in more detail how these problems and issues are being strategically addressed or planned to be addressed in some key economic areas around the world.

*Bye till the next issue.*

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## How can I improve myself within a month?

### 21 ideas

1. Detoxify your speech. Reduce the use of cuss words. Be polite.
2. Read everyday. Doesn't matter what. Choose whatever interests you.
3. Promise yourself that you will never talk rudely to your parents. They never deserve it.
4. Observe people around you. Imbibe their virtues.
5. Spend some time with nature every day.
6. Feed the stray animals. Yes, it feels good to feed the hungry.
7. No ego. No ego. No ego. Just learn, learn and learn.
8. Do not hesitate to clarify a doubt. "He who asks a question remains fool for 5 minutes. He who does not ask remains a fool forever".
9. Whatever you do, do it with full involvement. That's meditation.
10. Keep distance from people who give you negative vibes but never hold grudges.
11. Stop comparing yourself with others. If you won't stop, you will never know your own potential.
12. "The biggest failure in life is the failure to try". Always remember this.
13. "I cried as I had no shoes until I saw a man who had no feet". Never complain.
14. Plan your day. It will take a few minutes but will save your days.
15. Every day, for a few minutes, sit in silence. I mean sit with yourself. Just yourself. Magic will flow.
16. In a healthy body resides a healthy mind. Do not litter it with junk.
17. For one month, eat home cooked meals.
18. Keep your body hydrated at all times. Practice drinking 8-10 glasses of water.
19. Make a habit to eat at least one serving of raw vegetable salad on a daily basis.
20. Take care of your health. "He who has health has hope and he who has hope has everything".
21. Life is short. Life is simple. Do not complicate it. Don't forget to smile. 😊

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**One in five existing jobs in Great Britain, amounting to 3.6 million, may be displaced by 2030 due to the rise of robots, according to Centre for Cities' report. It suggested retail, customer service roles, and warehouse jobs were among the most at risk.**