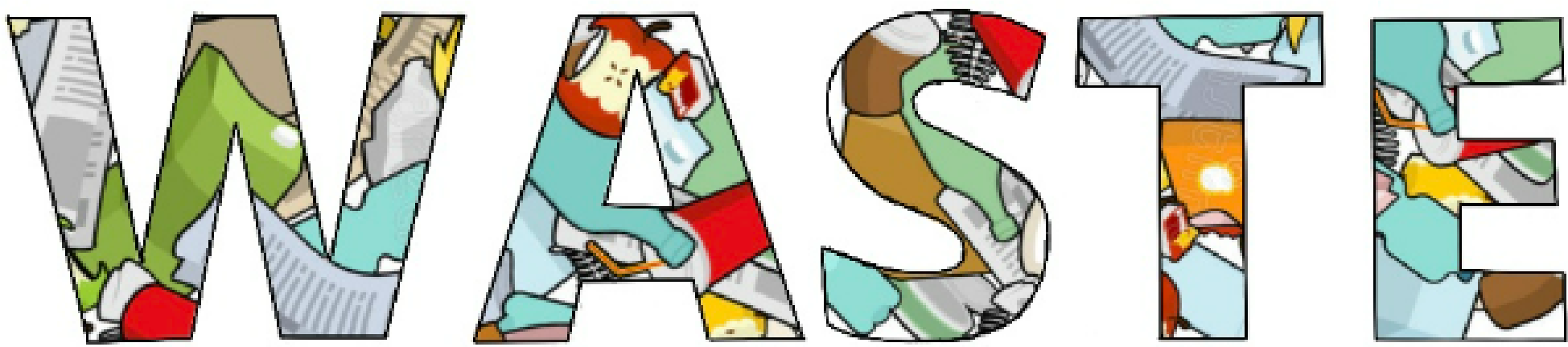


**"WASTE IS ONLY WASTE IF WE  
WASTE IT - WILL.I.AM"**



**WASTE**

**IS**



**WEALTH**

**A GLIMPSE INTO THE MONEY WE DUMP IN THE  
LANDFILLS EACH YEAR**

**BY TANYA AGARWAL**

### **Book Summary:**

Kamikatsu is a small village located in Japan. It has got everything you'd want in your ideal post-retirement home: few people, picturesque landscapes, peaceful hills and small historic homes. But what it's actually popular for is something that it doesn't have: Kamikatsu as a town produces almost zero trash. Yes, zero waste, means that they have basically no landfills. But this environment-friendly go green healthy scenario wasn't present until very recently. Till 1990, Kamikatsu used to burn its trash or dump it in the greens. But the burning of waste, that is incineration, released harmful chemicals into the air and started wiping out the town's abundant wildlife. The town's authorities then made a decision that kamikatsu's waste management system had to be changed. Finally, in 2003 there came a Zero Waste Declaration.

Every single day, the Earth gets one step closer to its end. The icebergs are melting, there is a water shortage, the temperatures are rising and humanity is suffering. But today if I told you that you can stop this with just one simple step and that is looking into your waste, and in fact, even make money out of just efficient waste management, would you?

This book helps you do exactly that. We argue that efficient waste management can help you save money and at the same time, save the planet. We bring to you the microeconomics and macroeconomics of waste and how ***your waste is nothing but wealth.***

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## **Chapter 1: Understanding How You are Draining Your Money**

When I was younger, behind my locality was a large slum area. Every morning I woke up to the view of narrow lanes, tin sheds, a polluted gray smokey sky, a huge dump of trash that was located right in the middle of the slum area, and almost every single thing one would imagine when they thought of the sheer scene of poverty. While I was privileged to live in a community which was sanitized and void of the aforementioned conditions, the bus stop for my school bus was right near the landfill. My daily visits to the landfills affected me both mentally and physically. The strong smells cause me headaches and the dead animals and cows feeding on plastic bags triggered me emotionally. The problem of that landfill was so bad that my younger sister even faced severe asthmatic issues due the smoke and trash burning in that area. I often wondered why no one ever cleaned that piece of land up and built a school there, in fact my seven year old brain even came up with the idea of giving people food to clean that land up and solving the problem of landfills and hunger together, but then came the question of where will this trash go after being picked up from here?

I realized that trash picking is no solution and it's just a remedy for delaying the whole trash removal process. As I analyzed the trash in that landfill each day while waiting for my school bus to arrive, I realized that the waste was primarily composed of three main things: plastics, food, and dead animals. On closer analysis, I realized that most of the plastics were one time use but they could be recycled and the food, well it could just be given to the poor instead of being thrown away. And that was when I realized that efficiently managing your waste is nothing, but the solution to multiple social issues and a remedy for one to save money at a personal level.

We have all heard the famous proverb “save money and it will save you.” Indeed, the art of saving money to put into our future buyings is something we all want to master. We are often switching brands from product to product, cutting out on unnecessary expenditure, making tabs and financial books, studying our records and finding the “right” deal to decrease our earning to saving ratio. But the places we think we are losing money are not always as obvious as we think they are.

Recently, studies have proven that just the efficient management of your waste can help you minimize your expenditure within one month of consciously analyzing your waste and reducing your household waste output. But the real question here is what exactly is waste and how can scraps and items that have lost their utility help you save money? When I was in fourth grade, we had this workshop in school about 'waste management' and how important it was for our environment and our economy. At that moment, to my nine year old self, the idea of 'trash' harming the environment and helping one save money seemed gibberish. I wondered how 'useless items' and 'leftover scraps' could possibly result in things like 'climate change' and have adverse effects on the wildlife. Unable to understand the idea trying to be conveyed to us, my classmates ignored everything taught to us and continued to dispose of our waste in the same unsegregated way.

But what I've learnt over the years is that just because we feel something isn't making sense, it doesn't necessarily mean that it is not true. Later that very day, on my way back home, I saw a sight that changed my thought process forever. On other days I'd watch the city and make random scenarios in my head of my friends and movie characters but that day these scenarios did not help me ignore what I saw through the dusty windows of our bus. On other days I'd watch the city and make random scenarios in my head of my friends and movie characters but that day these scenarios did not help me ignore what I saw through the dusty windows of our bus. On one hand I saw cows and stray dogs eating out of garbage cans filled with trash and on the other I saw a plastic bag fly through the air. The irony was such that I saw a four year child walking barefoot, and at the same time I also saw a proper, perfectly usable shoe lying right in the middle of the road.

The asperity of the scene made me realize that I now had to change my approach to the way I targeted things. From left to right all I saw on the streets were plastics, metals, food, glass, shoes, clothes, and even some usable objects like full-size bathtubs, lying on the streets, unclaimed. A stream of thoughts flashed through my mind. I started analyzing every single thing I could see in front of me. And that was when it struck me that *nothing is 'waste'*. Old shoes could be donated, notebooks could be recycled, car parts could be dismantled and separately sold, and clothes could be used to make banners and seat covers. Indore a city in India for example, made roads out of plastic bottles, Sweden is actually buying waste from other countries to harness the energy and Uganda has made several biodiversity parks only from waste.

*If we talk about the Oxford dictionary definition of 'waste', waste is the "unwanted matter or material of any type, especially what is left after useful substances or parts have been removed."* According to this definition; right from vegetable peels to printed paper,

everything around us that has been used to its maximum potential and cannot be used anymore is waste. But the truth is that nothing is 'waste'. Every single thing that we see around us is useful in some or the other way. We might feel that an empty tube of toothpaste is not useful anymore merely because we think of it as something that contains toothpaste and now because the toothpaste is finished, the tube has been rendered useless and thrown away in the dustbin because it is 'waste.' Now if we look at that empty tube, it is still capable of containing a substance and so it is still actually useful. Further, a tube is made up of aluminum or plastic which are generally the easiest substances to recycle. So now if we think about it, the toothpaste tube that we always regarded as useless is very useful. Similarly, an old math notebook which has every single page used, may not be useful for writing anymore but it can still be recycled by breaking it down into cellulose and forming a substance called 'pulp it' which eventually is transformed into a new notebook which can then be used. So indirectly the notebook isn't exactly 'waste'. Try to connect every item you think is waste to a fresh product and soon you will realize that nothing is really 'waste' because it can all be recycled. Therefore, we can say that most of what we think is waste isn't exactly waste but is raw material that can be used for producing something else.

When I got off the bus and came back home, I carefully examined every single object placed in my house. Right from the metal doorknob, the shoe rack, the glass of water, the soap container, the tissue box, to the clothes I was wearing, I realized that almost 4 out of 5 objects were recyclable and the 5th item was well- reusable. I did this with almost every single thing that would come in my hand. In no time I realized that nature has a fixed number of resources that it has provided us with. It is our responsibility to use them appropriately. The broken metal doorknob was once a mineral rock in the earth and the tissue paper was once a tree. It's our choice if we choose to let the doorknob sit in a landfill and take a million years to decompose and it's our choice if we choose to recycle it or get it fixed and use it. We have to consciously train our minds to make the right choice.

Now that we've understood that 'nothing is waste', let's talk about how to apply this same theory in daily life and why it's important. In the simplest terms, 'waste management' can be defined as the collection, transportation, and disposal of garbage, sewage, and other waste products. From segregation to disposal the entire process is known as waste management.

In the past few years we've constantly been hearing about terms like "efficient waste management", "sorting of waste", "incineration", "animal feeding" etc. almost every single day. But have we ever stopped and thought for a minute "*why exactly is waste management SO important?*" Studies have shown that lack of efficient and effective

management and disposal of waste has resulted in various challenges such as spread of diseases, poisoning of groundwater, adverse impact on aquatic life and many health problems like cancer, depletion of aquatic life, global warming and has also created social differences in the society. Many of these have reached irreversible levels and many are getting there fast.

Let's think about it. We use a double A battery and throw it away casually but the components such as lead of that battery leak through the soil and poison your neighbors food and one day he dies of cancer. It therefore, becomes crucial for us to manage our waste because if we don't, we're doomed.

A few months ago, my mother and I went to the grocery store. My mother was munching on a few biscuits and after she was done, she asked me to throw away the package in a dustbin next to the grocery store. When I opened the lid, I was shocked to see that the dustbin was full of perfectly sealed cans, fresh looking bananas, a packet of MnMs and multiple other commodities that from the outside appeared very usable. Out of undying curiosity I then asked the salesman at the billing counter why those things were thrown in the trash to which he replied saying that most of the items were expired and others were visually unappealing and therefore, consumers would refrain from buying them so they had to be thrown away. Obviously, food can't be consumed past its expiry date and so the only option left is to throw it away.

The idea of discarding edible food surely feels extremely delirious but scientists have actually proven that consumer mentality is such that even if one fruit in the lot looks eccentric, we tend to avoid buying the item thus minimizing the shopkeepers sales. In order to procure more profits the shopkeeper is impelled to remove these odd looking fruits which are then wasted.

But then *How dangerous can food waste possibly be since it's biodegradable?* According to the Food and Drug Administration, better known as the FDA, Twenty two percent of the waste in our landfills is 'Food Waste.' When Food rots, it releases a greenhouse gas known as 'Methane' which is twenty eight times more powerful than carbon dioxide. According to the United Nations food Wastage Footprint & Climate change report, food waste emissions contribute to global warming as much as the world's transport system does. If fifty to seventy five percent of food waste is reduced by 2050, almost nineteen gigatons of carbon dioxide could be avoided from getting into our atmosphere.

The problem of food wastage is so appalling that the world hunger problem can be solved twice over if only we do not waste food. In the United States of America forty

percent of the food produced is never consumed and is wasted and yet one out of every eight people in America sleeps on an empty stomach each night. Yes, it's pretty ironic how diplomats argue over making more land available for agriculture in order to meet the needs of the growing population when in reality a large part of the food produced is wasted. Rob Greenfield - an environmental activist once mentioned how he saves money by eating out of the dustbins of a grocery store as most of the food in those dustbins is edible, fresh and clean. France made it illegal for grocery stores to throw away edible food and thus ranked #1 in the world food sustainability index.

As a matter of fact, food wastage is a problem prevalent throughout the supply chain. Inept agriculture too, is a major cause of food wastage. The results of a field survey measurement by the On-Farm Food Safety in Northern and Central California showed that 33.7% of the produce remains unharvested every year. That's nearly a third of the entire product. The 12th United Nations sustainable development goal is that by 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

The problem is that we buy food in unnecessarily high amounts and when it goes bad we have no option but to throw it away. We stuff our plates with food we cannot finish and eventually end up throwing all this food which could have been consumed by other people. Ellen Bowen- The director of Food Rescue US Miami site started a campaign to collect unused food from grocery stores that they would eventually throw away and feed this food to the hungry people and she noticed that she could feed over a thousand people each day. An average family of four people spends about fifteen hundred dollars every year on food that they DO NOT consume. Can you now imagine the amount of money that is wasted just because we decide to hoard our fridges with high amounts of food?

In 1990 the Massachusetts Institute of Technology started a project known as the 'food Cam' in their office pantry to reduce food wastage to a minimum. The extra food would be placed under the food cam which would click a picture and upload it onto MIT's instagram and facebook pages and within a minute or two people from all over the office would race to the pantry for that food.

Many new companies like Copia and the Robinhood Army have started apps where you can enter the amount of food you're willing to donate and a driver will then come and pick this food up and take it to shelters where food is needed. Food wastage, if we look at it, is one of the EASIEST problems to solve. We have to consciously train our minds to buy only as much as we need and donate the leftover food to people who actually need it.



Moving on to fashion waste. In recent times we have been hearing the words “fashion blogging”, “fashion entrepreneurs”, “style icons”, “fast fashion” etc. multiple times. Be it social media influencers or big brands like H&M and Zara; in today’s world, if your fashion sense is unique, you’re already on the path of one of the most profitable careers. The clothes you wear define you. Let's talk about the job you’re aiming for. You know that the chances of you getting that job is higher if you’re well dressed for that interview. Let's talk about your best friend's birthday party next week. You’re definitely planning on wearing the best dress you have or the best denim jacket. In today's world, we’re all expected to play multiple roles. We have to be the best employee, the best football player on the team, the A grade student and at the same time attend family functions, go out for lunches, dinner parties etc. Along with these multiple roles we play, come in the variety of clothes we need to be dressed appropriately to fit in these roles. We need sports wear, a formal shirt and tie, a party dress, a traditional dress to wear on festivals, a school uniform, clothes to wear at home etc.

Now I’m pretty sure you’re thinking “all these clothing items are necessary so why is fashion waste even a matter of concern? I mean I can't play football in party clothes, can I?” The problem is not having multiple clothes for multiple activities. The problem is having unnecessary clothes and the quick “use and throw ” lifestyle we’ve adopted. Fashion designers and bloggers experiment with new styles, different types of clothing and create new fashion trends. The “latest” trends are then released in the market and consumers, in order to stay up to date and look modern, buy these products. This fast paced change compels us to buy more and more clothes and discard our old clothes. We produce nearly 13 million tonnes of textile waste per year. That is worth \$400 billion of clothes that we’re wasting. To add to this problem fashion brands organize regular sales of low quality products and the consumer starts hoarding these clothes when they see the sale banners. Yes, although these brands and influencers are very creative, innovative and appealing, and promote the expression of one's individuality, they are harmful to the environment and unsustainable.

In the 21st century, the fashion cycle changes every 3 hours. What might be trendy today might be outdated tomorrow. Fast fashion is expensive and on an average a median income family spends approximately \$1600 on clothes per year. 92 million metric tonnes of waste produced every year 79 trillions liters of water consumed in making clothes. Fast fashion becomes imperative for us to ensure that our fashion waste is disposed of efficiently so that it doesn't harm the environment and in turn it also benefits our wallet. But clothes can actually help you save money if you think about it from an economical standpoint. You can sell your old clothes on thrifting platforms, recycle them and make sweeping clothes, bed covers, room decor out of them and

even donate them to charity. While donating them to charity may not seem like it's saving your money, from a microeconomic point of view, by donating your old clothes, you are reducing the number of people who demand clothes and as the demand falls the prices of clothes in the future will fall too.

Now for a moment I need you to stop reading and look at everything around you. Look at your laptop, your phone, your shampoo bottle, your cooking utensils or basically everything you can see the moment you lift your eyes off this book. All these items have some or the other form of plastic in them. The glossy cover of your fancy encyclopedia, the insulating handle of your frying pan, the cover of your mobile phone; everything is made of plastic. But where does this plastic go when we throw it away?

The production and the disposal of plastics is a major climate change issue. Plastics are made up of ethane which is a by-product of hydrofracking. As the world is trying to eliminate the use of fossil fuels, fuel companies are trying to minimize their losses by increasing their plastic production.

Now this plastic is mainly manufactured for the purpose of use and throw and so most of it ends up in landfills or oceans. The cows, whales, dolphins and various animals feed on this plastic, bloat and die. Ocean currents cause the plastic dumped in oceans to collect in the great pacific garbage patch that covers 1.6 million square kilometers. This plastic waste has killed over 100,000 marine animals and 1 million birds. The problem is not just about sea animals but also humans who are adversely affected by plastic. Plastic takes centuries to decompose and during this process disintegrates into microplastics which are less than 5 mm in length. These microplastics become extremely hard to track and according to a study by the United States National Oceanic and atmospheric administration these microplastics are found in every single part of the food chain right from salt to drinking water. A recent study commissioned by the World Wildlife Fund and conducted by researchers at the University of Newcastle in Australia estimated that people consume about 5 grams of plastic a week — roughly the equivalent of a credit card. Be it the fish who consumed the microplastic thinning it was a plankton, or the cow whose milk you're drinking, microplastics are incorporated in every single item you consume. Infact, in a new study scientists have detected microplastics deep in the lungs of living people for the first time. They identified a total of **39 microplastics, found in all regions of the lung**. This included large particles that had managed to pass through the smaller airways of the lower lung (Source: Weforum).

The plastic problem however does not only lie in supermarkets and daily use products, it's universal on farms too. Agriculture is something that is essential for the survival of every human being and we can just imagine the amount of plastic that is probably used

to meet the needs of the world's population. Plastic is omnipresent on farms. It is used to wrap silage, to cover crops, in tubing for irrigation and to transport feed and fertilizer. According to a 2010 report from the Department for Environment, Food and Rural Affairs (Defra), 45,000 tonnes of agricultural plastics are produced every year in the UK.

The biggest contributor to this problem are plastic sheets that are spread over the soil to serve as a sort of mulch. They suppress the growth of weeds, increase fertilizer uptake, regulate temperature and humidity, and protect plants and soil from bad weather. Researchers estimate that plastic mulch increases crop yields by a third. The problem arises here. Plastic used on farms is typically difficult and expensive to recycle because it becomes contaminated with soil, pesticides and fertilizer. If agri-plastic can't be recycled, the only options for disposing of it are to burn it, bury it, or to send it to landfill which releases harmful substances in the air. Moreover these films of plastic disintegrate into microplastics which contaminate the soil and also make the food we consume hazardous. Scientists have been researching for an Eco friendly alternative to plastic liners but the cost of the alternative is unaffordable to most farmers making it impractical.

So if you want to save money from plastics, sell away all plastics in your house to the ragpicker, get money in return for it, use that money to buy alternatives such as glass jars and paper bags. The money you think you're saving right now by using plastics is nothing but a fund you are collecting for your medical treatments that will become inevitable if you keep feeding on plastic and keep influxing plastic into the landfills each year.

The only way to eliminate it is to reduce its consumption, switch to alternatives such as paper bags, cardboard packaging and recycle the plastic already present in the environment. The problem with plastic is no longer confined to the environment and the flora and fauna around us anymore, it is now in our food which can lead to severe diseases and incurable physical conditions. The corona virus is just the start of pandemics because microplastics are vectors just starting their game.

