



A STUDY ON PLASTIC SAVED

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Abstract: This study has been undertaken to understand the composition of plastic and its harmful rampant consumption by us on daily basis. Human beings today in form of different after market packaged product or daily product consumes plastic in a vast quantity, which slowly and gradually creating a hindrance to public safety and life. As a matter of study we have tried to explain the amount of plastic one consumes with every usage of product as compared to non plastic product. How some products are plastic saving and how they are helpful in sustainable development. To calculate the grams of plastic saved for every item (a very difficult task as you can imagine), we have taken the most used conventional product in urban India for that product segment and compared the plastic saved against that product. I assure my reader that to the end of this paper you will certainly think upon buying a plastic product twice and would drastically move towards a change we need in our society- towards a sustainable administration.

Introduction

Our beliefs shape all our actions. This is true for individuals and organizations. When we started research, we were struggling to find 100% plastic-free items delivered in a 100% plastic-free manner. We had studied and seen enough to realize that this rampant consumption of plastic is ruining our cities and destroying our oceans. The human health impact of micro plastic is becoming evident in research across the world.

India is a developing nation – with a huge mismatch between plastic production and plastic recycling. Add to that the fact that most plastic cannot be recycled unless the infrastructure is sophisticated, and you find a mammoth problem at our hands. And plastic recycling, unlike metal recycling, is not infinitely possible – most plastic can be recycled only 3-4 times.

Plastic is a versatile material – and in some cases, there are no alternate options. In those cases, we can choose options that have minimal plastic or the most recyclable form of plastic. We want to talk about these options – because, while they don't eliminate plastic completely, they give us the best solution available today.

We reiterate our philosophy here – we are constantly looking for the most planet-friendly solution. And the day we find a viable alternative (a function of our scale and your love), we will replace every item with the most planet-friendly alternative possible. This is true for not just plastic, but every planet-friendly value that we commit to.

Expressing plastic saved in kilograms doesn't make sense – because plastic is a very light product. One kilo of plastic sounds less but can kill many animals. There was a WWF study done that reveals that people may be consuming 5 grams of plastic every week – which is the equivalent of the weight of a credit card. So we decided to express plastic saved in terms of pieces. This also comes with a fair bit of complexity - single-use plastic is very light - and a shampoo bottle is relatively heavier. Instead of complicating this number, we took the average weight of a piece of plastic – 6.9 grams.

To calculate the grams of plastic saved for every item (a very difficult task as you can imagine), we have taken the most used conventional product in urban India for that product segment and compared the plastic saved against that product. As an

example, for the shampoo bar, we are calculating the amount of plastic saved compared to a 340 ml shampoo bottle – that's 43 grams of plastic saved or 0.126 grams of plastic saved per ml of shampoo. Based on the grammage of the shampoo bar that you buy and the number of days the bar lasts, the grams of plastic saved are revised accordingly.

These marketplaces use bubble wrap, plastic padding, etc. – which we have estimated to be 2 pieces per delivery. We are adding that as a constant factor to our plastic savings per item. The idea again is not to be 100% accurate – but to get the conversation started around various hidden/ not-so-obvious plastic usages, that are very much avoidable.

In those small numbers of cases where we are not saving any plastic in the product, we are not considering any benefit from packaging material as well. While there are obvious benefits to not using plastic in delivery, we want the plastic saved in these cases to be zero - this will motivate us to find a better solution for you and it will be our area of focus at all times.

An average urban Indian household consumes around 20 kg of plastic per year – and most of it comes with our household products like detergent, creams, food, or vegetables. Try to save as much as you can – because, trust us on this, most of it is not getting recycled. It is important that we be imperfectly zero waste from today, rather than perfectly zero-waste in the future.

Hence, to completely understand the plastic presence in our daily life style we tend to research on the products we are using today. I assure all my readers that you would automatically stop using the plastic packet product once you go through this paper.

Objective of Study

This research study is done to get an overall view about the plastic packaging in our daily products which later turns into plastic waste. Also to answer some of the doubts that, why are we using such packaging products which are harmful to environment? , what else alternative we have or we can develop to counter such issue of plastic footprint?

The main objective of the research is to satisfy the reader to the conclusion, that we are still mentally alive in our full senses to counter the problems of carbon footprint and to the extreme limit, we will try to incorporate sustainable use of product which is healthier to environment, making us a worthy sustainability warrior.

Methodology

While the ongoing research we have used both the primary and secondary data analysis method. During the research we have collected the primary data and tried to examine its relevance on the paper. Also a lot of secondary researches related to this topic are present on the internet; we have studied them and tried to extract the core subjects out of it in development of our paper.

The paper is both quantitative and qualitative in nature with the character of a descriptive design research, where the analysis is generated from the existing data. Here the researcher is solely interested in describing the situation or case under his research study. In order to explain the consequences of variability we have choose many samples of same characteristics with same nature of elasticity, all having hazardous impact on environment.

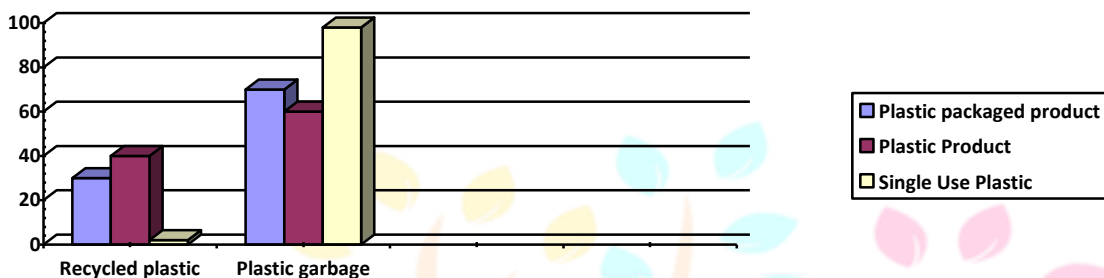
A lot of calculations have also been done in order to find the exact amount of data needed, somehow it was done to accurate form and at some place the method was twisted to bring it to accurate form.

Plastic a GLOBAL Concern

Plastic are wide ranges of synthetic or semi synthetic materials that use polymers as a main ingredient. Their plasticity makes it possible for plastic to be molded, extruded or pressed into solid objects of various shapes. This adaptability, plus a wide range of other

properties, such as being lightweight, durable, flexible and inexpensive to produce, has led to its widespread use. Plastics typically are made through human industrial systems.

Plastic products have become an integral part of our daily life as a result of which the polymer is produced at a massive scale worldwide. On an average, production of plastic globally crosses 150 million tons per year. It is estimated that approximately 70% of plastic packaging products are converted into plastic waste in a short span of time. Rests 30% are either recycled or reused. While the recycling rate in India is considerably higher than the global average of 20%, there is still over 9400 tons of plastic waste which are either in landfills or ends up polluting streams or groundwater resources.



Though Plastic are not inherently bad, and they have many redeeming ecological features. Their durability and low maintenance reduce material replacement; their light weight reduces shipping energy. Once plastic gets discarded after use, it is called plastic waste. Plastic waste never degrades and remains for several years. Mostly, plastic wastes are recycled but recycled products are more harmful to the environment as this contains additives and colors. The recycling of single plastic product can be done 2-3 times only, because after every recycling the plastic material deteriorates due to thermal pressure and its lifespan is reduced. Hence, recycling is not safe and permanent solution to plastic waste.

Secondly, the reuse of plastic is also considered in lowering the plastic waste but at the same time due the chemical extraction used in the product, it may not allow the packaging to be used for other item storage, as it may result into any human disease.

The Ministry of Housing and Urban Affairs in its report on Swach Bharat mission stated, through its researched data that only 60% of the plastic produced is recycled, balanced 9400 tons of plastic is left unattended in environment causing land, air and water pollution. Also, about 70% of plastic packaging products are converted into plastic waste in a short span.

Harmful effect of plastics:

Plastic is lightweight, flexible, moisture resistant and relatively inexpensive. However, durable and very slow to degrade, plastic materials that are used in the production of so many products ultimately become waste. The disposal of plastics is one of the least recognized and most highly problematic areas of plastic's ecological impact. Natural organisms have a very difficult time breaking down the synthetic chemical bonds in plastic. The plastics left in the landfills remain for hundred or thousand years, where their toxic compounds are spewed throughout the atmosphere to be accumulated in biotic forms throughout the surrounding ecosystem.

It leads to Ground water and soil pollution, where due to its chemical composition it does not degrades into soil rather breaks down into tiny pieces and after getting in contact with UV Radiation; toxic chemicals from plastic drains out and seep into ground water, flowing through downstream into lakes and rivers. The seeping of plastic also causes soil pollution.

[In a report of Indian Medical council](#), 83% of our drinking water contains plastic. Studies show that consuming plastic could lead to cancer, effect on hormone levels and heart damage. Plastic have been found in the blood of even new born babies. Burning of plastic results into formation of a class of flames retardants called Halogens. Collectively, these harmful chemicals are known to cause cancer, endometriosis, neurological damage, endocrine disruption, birth defects and child development disorder, reproductive damage, immune damage, asthma and multi organ damage.

With suitable additives, it is possible to vary their opacity, thickness, elasticity, and thermal properties. It is no wonder that plastic is now an integral part of human civilization. Commonly used plastics can be broadly classified into two categories: thermoplastics and thermoset plastics. Thermoplastics soften when heated and thermoset plastics harden with heat, hence maintaining the initial form. For example, soft drink bottles and PVC pipes are thermoplastics whereas electric kettles, plugs, etc., are made of thermoset plastics. The vast majority of the world's total plastic consumption consists of thermoplastics, and these can be classified as shown in Table below:

Type	Abbreviation	Description	Example use
Polyethylene Terephthalate	PET/PETE	Polyester extruded and molded. Clear, strong, and lightweight	Plastic bottles (water, soft drinks)and as packaging for many other consumer products
High Density Polyethylene	HDPE	Intermediate level of opacity, less stretchable compared to LDPE	Milk jugs, water bottles, shampoo bottles, motor oil containers, plant pots, buckets, toys
Polyvinyl chloride	PVC	Strong, lightweight. Can be made more flexible by adding plasticizers	Plumbing pipes, doors, windows, credit card, cable sheathing, garden hoses, toys
Low- Density Polyethylene	LDPE	High clarity and moderate stretch	Plastic bags, squeezable bottles, food containers, bubble wrap, disposable cups, coating for paper cartons
Polypropylene	PP	Durable with smooth finish	Bottle tops, yogurt and margarine containers, drinking straws, hot food containers, car parts, disposable diapers
Polystyrene	PS	Economical plastics with a certain rigidity	Disposable foams cup, take-out food containers, plastic cutlery, coat hangers, foam packaging
Polycarbonate	PC	Transparent, high impact resistance	Eye protection, shatterproof glazing, UV resistant lenses. Etc

Chemicals composition of plastic and their effects:

Below down are some major chemical compositions used in the making of plastic , lets study what are they and what effect they have on environment and humans.

Chemicals	Definition	Effects
Phthalate	The first list of chemicals in plastic is Phthalate, the esters of phthalic acid. The main use of phthalate is as plasticizers, to increase flexibility, transparency, durability and longevity. About 70% of plasticizers produced in the world are phthalates.	Phthalate, some of them are known for their potential to act as endocrine disruptors. Many researches have tried to find the long term effect of phthalates exposure. Some of them have found that phthalates may cause abnormalities in penis if a mother who has a new born son has a high level of phthalates in their blood.
Polycarbonate	A polycarbonate is a group of thermoplastic polymers. It is called polycarbonate because it contains carbonate groups in their chemical structures. Factories can make polycarbonate by reacting biphenyl A and phosgene COCl_2 . Using this reaction, factories made at least one billion kilograms annually. Polycarbonate has a high impact resistance, but it has low scratch resistance. It is transparent to visible light.	Polycarbonate can become dangerous when it changed to BPA. The bad news is, polycarbonate will change to BPA if they are exposed to a high temperature. That is why it is not safe to use polycarbonate in food storage.
Polyactic acid	Polyactic acid is plastic derived from biomass, such as sugar cane or corn starch. It is biodegradable and therefore better than most other plastics. It has low gas transition temperature. It has relatively high melting point, which is 150-160 degree Celsius. However, it can be heated, cooled, and reheated again up to their melting point without having significant degradation.	Polyactic acid can be toxic, if we inhale or absorb it through our eyes or skin. However, when in solid form, PLA is not a toxic compound.
Polypropylene	Polypropylene is a thermoplastic from propylene monomers. It has a wide range of applications including packaging for consumer products. The global demand for this has increased from 45 million tons to 62 million tons by 2020. It has a tough chemical resistance. It does not react with diluted bases and acids, which makes it very good choice for containers of shampoo and detergents or other liquid. It has also a high elasticity and high fatigue resistance.	Polypropylene resin code is 5, which means it is safe to use. However one should be careful using it near fire, because it is highly flammable.

<p>DEHP</p>	<p>It is one of the most common phthalates plasticizers. It has suitable properties and also low cost which makes DEHP very economic plasticizers that factories can use. This compound is colorless, soluble in oil but not soluble in water. It has 390.56 g/mole molar mass. It has low melting point, even lower than water freezing point. DEHP is banned from plastic industries but it is used in plastic we use in our daily life.</p>	<p>DEHP is a carcinogen, teratogen and also an irritant for our body. Both women and men can get cancer because DEHP acts as an endocrine disruptor. This will have long lasting damage on human reproductive system, both for adult and children exposed to it.</p> <p>When male children are exposed to phthalates in their prenatal development, they will have lower level of reproductive function when they reach adolescent age. Even it is not yet conclusive, some studies already conclude that DEHP involvement in many molecular events are possibly causing cancer development.</p>
<p>BPA</p>	<p>BPA, which is an acronym that stands for biphenyl A, is one of the chemical that factories used to make plastics. We can find it in many plastic products. BPA has an estrogen – like activity that makes it become a hormone disruptor. It can affect how estrogen or other hormones act in the human body. A lot of research found that BPA is one of the most dangerous chemicals that can cause cancer to human.</p>	<p>In women, BPA is dangerous because it can mimic estrogen hormones and develop breast cancer. It is safer for a woman to reduce their exposure to BPA that can act like estrogen. Another danger is that BPA can affect the brain development of babies. A study in 2011 found that pregnant women with high levels of BPA are more likely going to have daughters who are hyperactive, prone to depression and also has a higher level of anxiety.</p>

Apart from these, there are more lists of chemicals in plastic that is harmful for our body and also bad for earth. To be wise, it's better to reduce the use of plastic and search for a healthier and friendly alternative.

In the present scenario, plastic not only is the cause for plastic footprint and carbon footprint but also it is a danger element for human life. Thus, consuming anything in plastic packed material is harmful for human beings.

To assume the calculation of plastic of some product we use in our daily life, we conducted a study to calculate the grammage of per unit plastic of products. Here below we can see how it was done.

Literature Review

A Study on Plastic from daily used products:-

Every day when we get up in the morning while reading the newspaper with a sip of chai or while watching news on television, we often read or hear the consequences of plastic in our life. Either it is about micro plastic found in our blood or about plastic snowfall in any part of world. For a second we stop and think, really?

We too had this query in our mind. Before telling or asking anyone about this query it was on our part to check our daily habit, what products are we using throughout a day or in a month and what amount of plastic it has; what happens after we discard them; where they end up and so on.

Therefore to counter our query and to get answer to so many questions it was necessary for us to first get to know the amount of plastic used in our consumed products. Since the consumed products were from all segments we thought to categories them and calculate their plastic gram age. Below table shows the different segments of product.

Product Segment	Product	Product Class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Dals	Major Dals	Chana dal	1000	gm	8.5	0.0085
	Major Dals	Moong dal	1000	gm	8.5	0.0085
	Major Dals	Raw Peanuts	1000	gm	8.5	0.0085
	Major Dals	Tur Dal	1000	gm	8.5	0.0085
	Major Dals	Urad Dal	1000	gm	8.5	0.0085
	Major Dals	Beans	1000	gm	8.5	0.0085
	Major Dals	Kabuli Chana	1000	gm	8.5	0.0085
	Major Dals	Masur Dal	1000	gm	8.5	0.0085
	Major Dals	Other Dal	1000	gm	8.5	0.0085
	Milletts	Rajmah	1000	gm	8.5	0.0085
	Milletts	Soyachunks	1000	gm	8.5	0.0085
	Milletts	Wheat	1000	gm	8.5	0.0085

Table 1: Represents the product dal its packaged quantity in grams and amount of plastic found in packaging with per unit plastic.

Graph 1: Graph representation of above table.

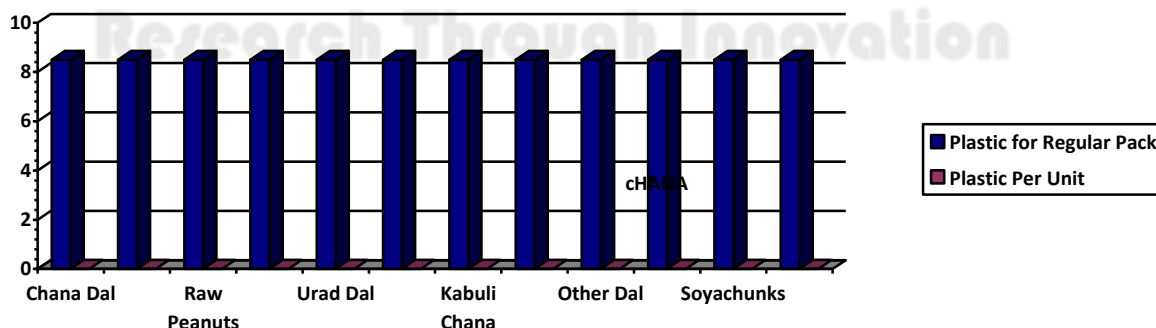


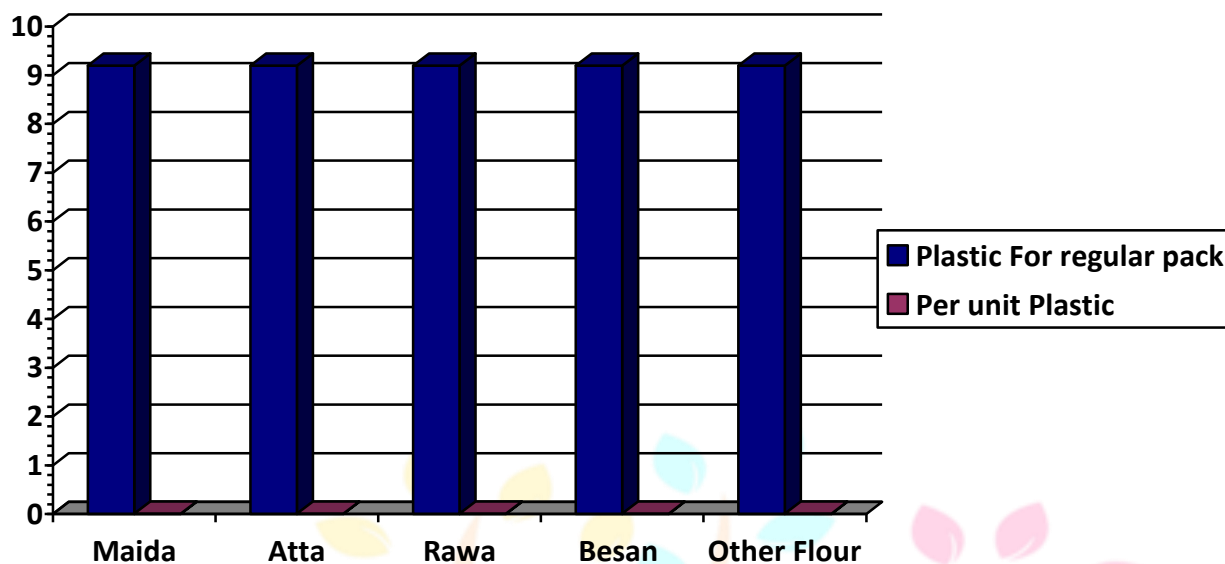
Image 1: Below image shows the weight of empty dal packet.

The above table 1 illustrates the product segment of dal (pulses), while calculation of grammage we found that the plastic pouch packaging used in all products are made up of either polythene or HDPE films. Also it was quite interesting to know that out of 1000 grams packet 8.5 gram is just plastic which accounts to 51 gram of CO₂ emission and if we calculate plastic per unit out of 1000 grams then it is 0.0085. So it was very much clear that if we consume approx. 7 kg of dal in a month we are going to spend approx. 60 gram of plastic on it which would result to 3.6 kg of carbon emission per month. (1gram plastic = 6 gram of emission).

Product Segment	Product	Product Class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit plastic
Flour	Wheat Flour	Maida	1000	gram	9.2	0.0092
	Wheat Flour	Atta	1000	gram	9.2	0.0092
	Wheat Flour	Rawa	1000	gram	9.2	0.0092
	Cereal Flour	Specialty Atta	1000	gram	9.2	0.0092
	Cereal Flour	Rice powder	1000	gram	9.2	0.0092
	Cereal Flour	Sticky rice powder	1000	gram	9.2	0.0092
	Dal Flour	Besan	1000	gram	9.2	0.0092
	Dal Flour	Other flour	1000	gram	9.2	0.0092
	Other Flour	Specialty flour	1000	gram	9.2	0.0092

Table 2: Represents the product segment flour under which different type of flour is listed; all products are packed and weighted in 1000 grams. In the table amount of plastic in product packaging per unit is described.

Graph 2: The above table is represented in graph below.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Oil & Ghee	Oil	Mustard Oil	500	ml	21	0.021
	Oil	Palm Oil	1000	ml	42.2	0.0422
	Oil	Soya Bean Oil	1000	ml	42.2	0.0422
	Oil	Sunflower Oil	1000	ml	42.2	0.0422
	Oil	Coconut Oil	1000	ml	42.2	0.0422
	Oil	Gingelly Oil	1000	ml	42.2	0.0422
	Oil	Groundnut Oil	1000	ml	42.2	0.0422
	Oil	Healthy Oil	1000	ml	42.2	0.0422
	Oil	Olive oil	1000	ml	42.2	0.0422
	Oil	Speciality Oil	1000	ml	42.2	0.0422
	Ghee	Cow Ghee	1000	ml	42.2	0.0422
	Ghee	Buffalo Ghee	1000	ml	42.2	0.0422
Oil	Soya Bean Oil Pouch	1000	ml	7.3	0.0073	

Table 3: Represents the product segment of Oil & ghee, some products are packed and weighted in 500 milliliter & some are packed and weighted in 1000 milliliter. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

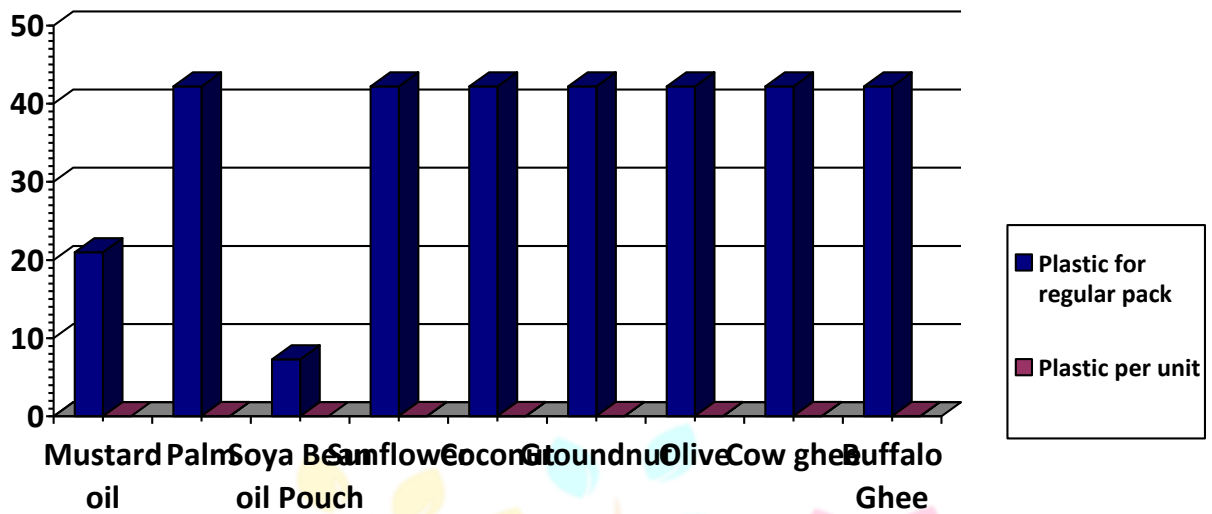


Image 3: Below image shows the weight of empty pouch of soya oil and mustard oil bottle.



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Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Cereals	Rice	Basmati Rice	1000	gram	75.8	0.0758
	Rice	Specialty Rice	1000	gram	14.6	0.0146
	Rice	Boiled Rice	1000	gram	14.6	0.0146
	Rice	Raw Rice	1000	gram	14.6	0.0146
	Other Cereals	Wheat	1000	gram	14.6	0.0146
	Other Cereals	Coarse Cereals	1000	gram	14.6	0.0146
	Other Cereals	Millet	1000	gram	14.6	0.0146
	Processed Cereals	Poha, Dalia and Puffed	1000	gram	14.6	0.0146

Table 4: Represents the product segment of Cereals; all products are packed and weighted in 1000 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, type of plastic.

Graph 4: Represents the above data in graph.

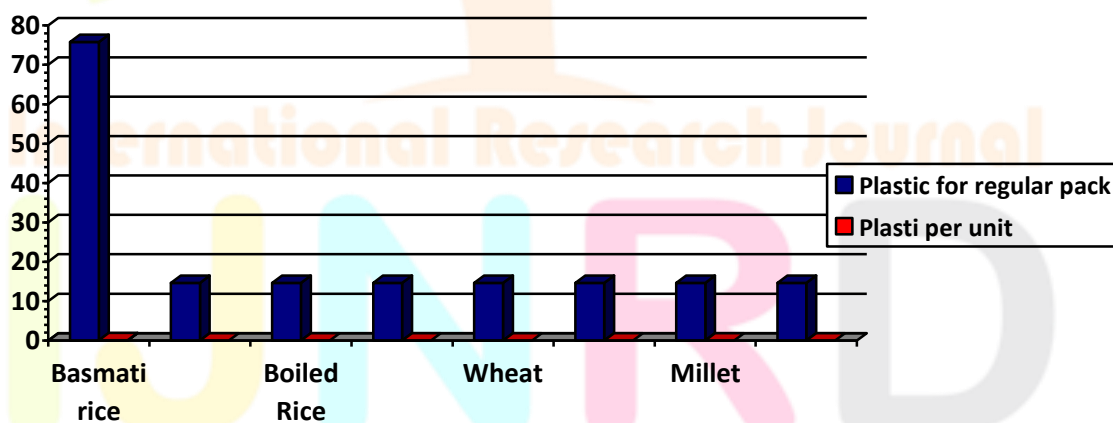


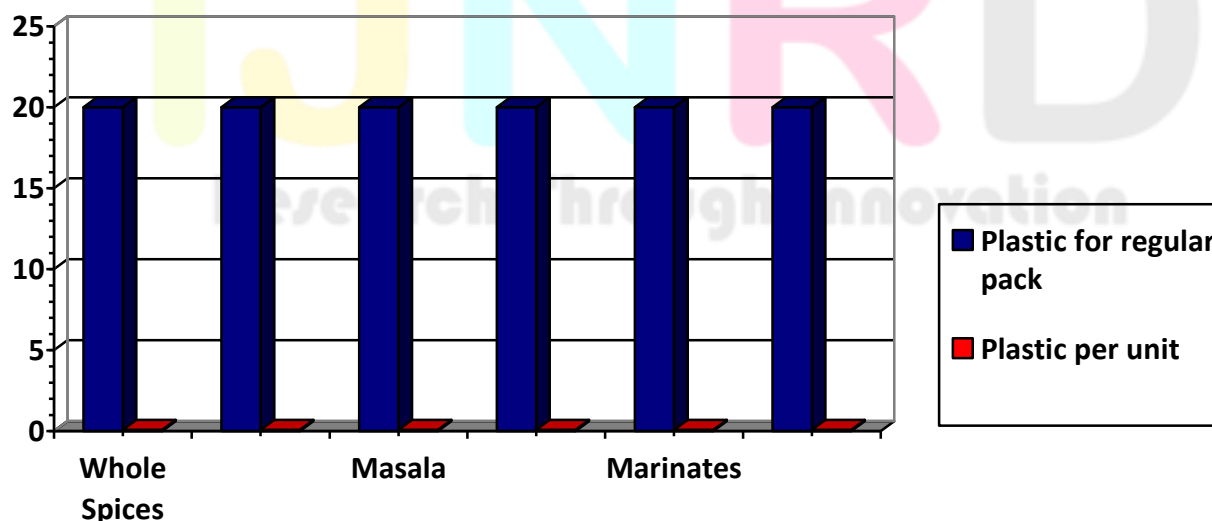
Image 4: Below image shows the weight of empty jar of Daawat Brown rice.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Pastes & Spices	Spices	Whole Spices	250	Gram	20	0.08
	Spices	Herbs	250	Gram	20	0.08
	Spices	Blended Masala	250	Gram	20	0.08
	Spices	Powdered Spices	250	Gram	20	0.08
	Pastes	Marinates	250	Gram	20	0.08
	Pastes	Cooking Pastes	250	Gram	20	0.08

Table 5: Represents the product segment of Paste & Spices; all products are packed and weighted in 250 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, type of plastic.

Graph 5: Represents above data in graph.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Dry Fruit & Mixes	Processed Nuts	Nuts	500	grams	15.8	0.0316
	Dry Fruits	Seed & Mixes	500	grams	15.8	0.0316
	Dry Fruits	Walnuts	500	grams	15.8	0.0316
	Dry Fruits	Almond(Badam)	500	grams	34.2	0.0342
	Dry Fruits	Dates	500	grams	14.7	0.0215
	Dry Fruits	Exotic Nuts & Berries	500	grams	15.8	0.0316
	Dry Fruits	Figs	500	grams	15.8	0.0316
	Dry Fruits	Pistachi(Pista)	500	grams	15.8	0.0316
	Dry Fruits	Raisins(Kismis)	500	grams	15.8	0.0316
	Processed Nuts	Mukhwaas	500	grams	15.8	0.0316
	Processed Nuts	Nuts	500	grams	15.8	0.0316

Table 6: Represents the product segment of Dry Fruit & Nuts; all products are packed and weighted in 500 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

Graph6: Represents the above data in graph.

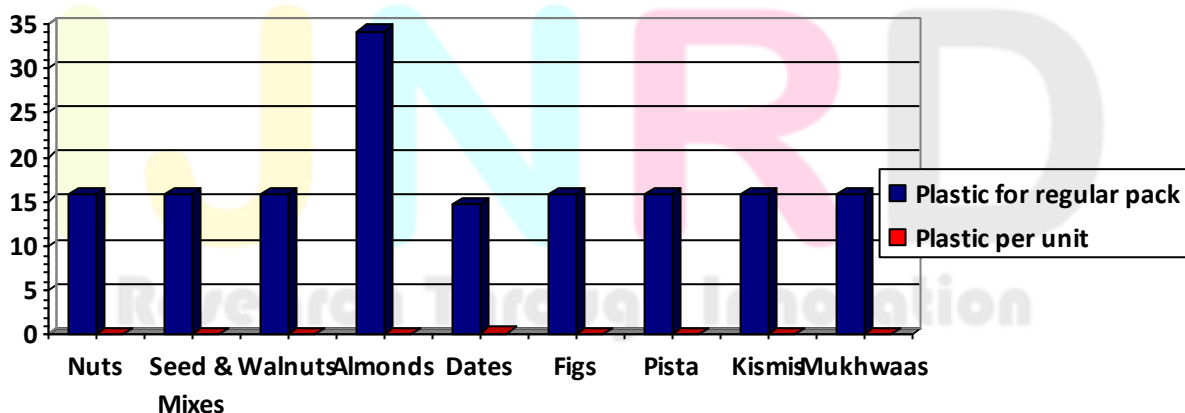


Image 6: Below image shows the weight of empty Date crown packet and nuts jar.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Jaggery & Salt	Sweetners	Jaggery	1000	grams	4.2	0.0042
	Sweetners	Sugarfree sweetner	1000	grams	4.2	0.0042
	Salt	Common salt	1000	grams	4.2	0.0042
	Salt	Speciality salt	1000	grams	1.8	0.0018

Table 7: Represents the product segment of Jaggery & salt; all products are packed and weighted in 1000 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene; film HDPE, type of plastic.

Graph 7: Represents the above data in graph.

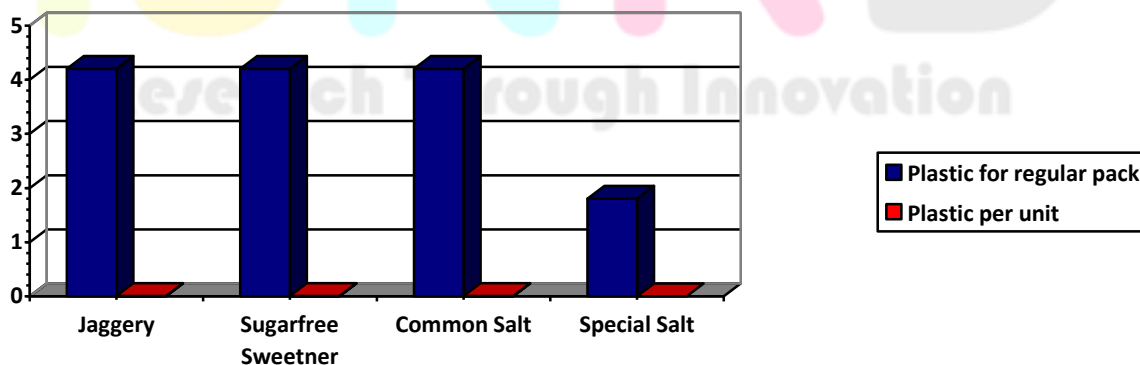


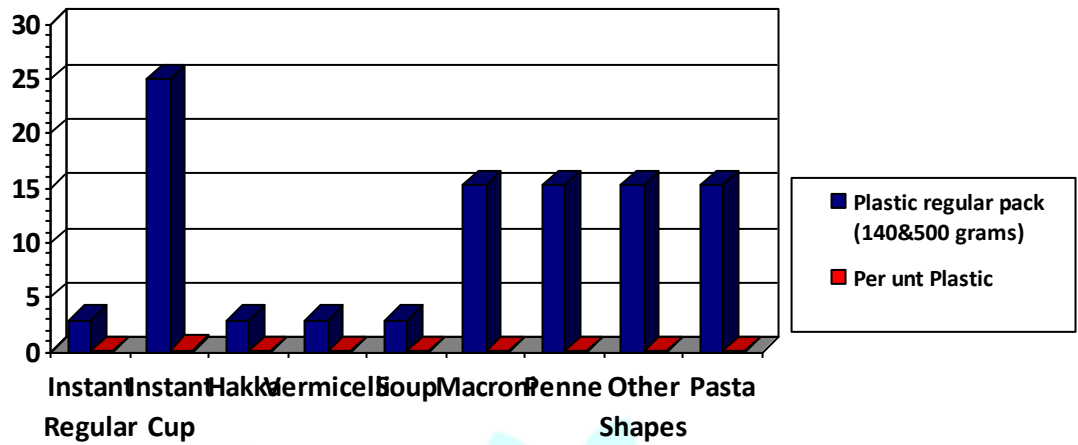
Image 7: Below image shows the weight of empty special salt packet.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Noodles & Pasta	Noodles	Instant Regular	140	grams	2.9	0.0207
	Noodles	Instant Cup	140	grams	25	0.1786
	Noodles	Hakka	140	grams	2.9	0.0207
	Noodles	Vermicelli	140	grams	2.9	0.0207
	Noodles	Soup	140	grams	2.9	0.0207
	Cooking Pasta	Macaroni	500	grams	15.3	0.0306
	Cooking Pasta	Penne	500	grams	15.3	0.0306
	Cooking Pasta	Other Shapes	500	grams	15.3	0.0306
	Instant Pasta	Pasta	500	grams	15.3	0.0306

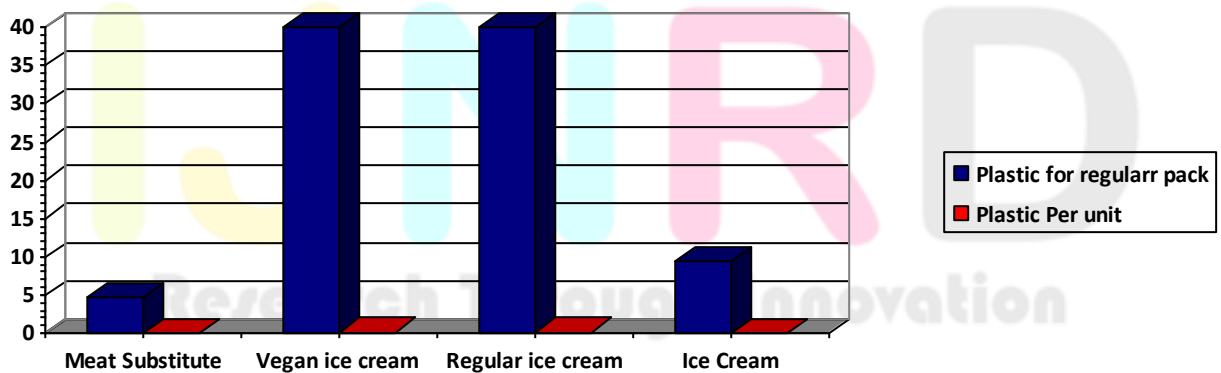
Table8: Represents the product segment of Noodles & Pasta; some products are packed and weighted in 140 gram & some are packed and weighted in 500 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

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Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Frozen Food	Meat Substitut	Meat Substitues	500	grams	4.7	0.0094
	Ice Cream	Vegan	350	grams	40	0.1143
	Ice Cream	Regular	350	grams	40	0.1143
	Ice Cream	regular	100	grams	9.4	0.0094

Table 9: Represents the product segment of Frozen Food; some products are packed and weighted in 500 grams & some are packed and weighted in 350 grams, some are in 100 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE type of plastic.



Graph 9: Represents the above data of table 9 in graph

Image 9: Below image shows the weight of empty ice cream container.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Nutrition	Breakfast	Breakfast Cereals	500	grams	14.3	0.0286
	Breakfast	Muesli	500	grams	14.3	0.0286
	Breakfast	Oats	500	grams	14.3	0.0286
	Breakfast	Granolas	500	grams	14.3	0.0286
	Breakfast	Horlicks	1000	grams	88.1	0.0881
		Complain	1000	grams	118.4	0.1184

Table 10: Represents the product segment of Nutrition; some products are packed and weighted in 500 grams & some are packed and weighted in 1000 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in PP, HDPE, film HDPE, PET, PETE & PP type of plastic.

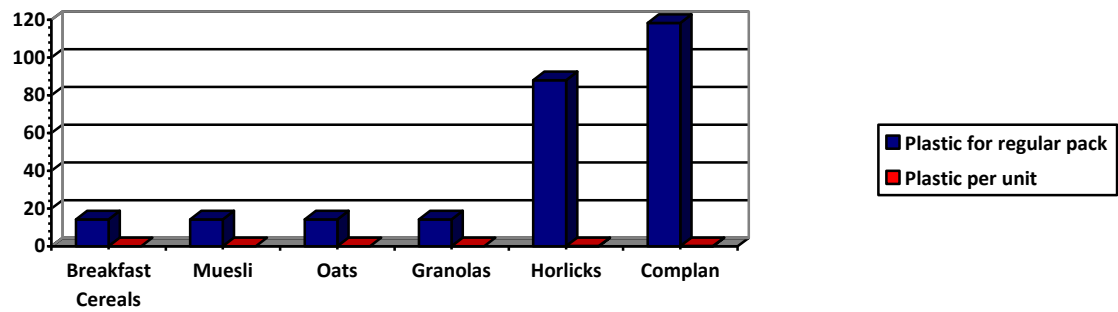


Image 10:Below image shows the weight of empty plastic jar of Horlicks and complan.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Cookies	Biscuits	Cream Biscuits	23	grams	1	0.0435
	Biscuits	Wafers	23	grams	1	0.0435
	Biscuits	Pie	23	grams	1	0.0435
	Biscuits	Digestive Biscuits	23	grams	1	0.0435
	Cookies	Cookies	23	grams	1	0.0435
	Cookies	Crackers	23	grams	1	0.0435
		Nuts & Peanuts	23	grams	1	0.0435
		Nachos	23	grams	1	0.0435
		Soya & other grains	100	grams	5.2	0.0052
		Mixtures	500	grams	17.3	0.0173
	Murukkus & others	23	grams	1	0.0435	

Table 11:Represents the product segment of Cookies; all products are packed and weighted in 23&100 &500grams respectively. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in PET, PETE type of plastic.

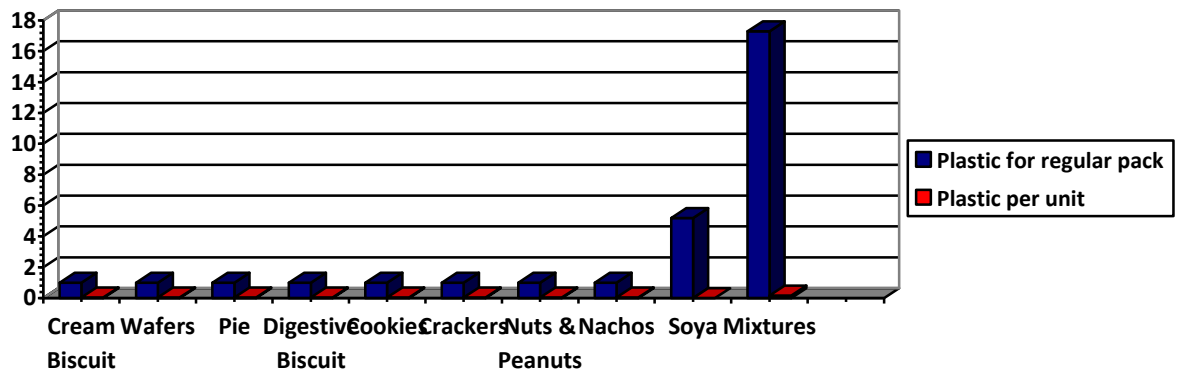


Image 11: Below image shows the weight of Sachet of Cream Biscuit and Soya.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Snacks	Chips	Chips	52	grams	4.3	0.0827
	Chips	Nachos	52	grams	4.3	0.0827
	Chips	Pop Corns	52	grams	4.3	0.0827
	Namkeens	Flavours of North	52	grams	4.3	0.0827
	Namkeens	Flavours of South	52	grams	4.3	0.0827
	Namkeens	Flavour of East	52	grams	4.3	0.0827
	Namkeens	Flavours of West & Central	52	grams	4.3	0.0827
	Snack Bars	Granola Bars	52	grams	4.3	0.0827
	Snack Bars	Diet Bars	52	grams	4.3	0.0827
	Snack Bars	Health Bars	52	grams	4.3	0.0827
	Dry Fruit & snacks	Dry Fruit Snacks	52	grams	4.3	0.0827

Table 12: Represents the product segment of Snacks; all products are packed and weighted in 52 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

Graph 12: Represents the above data in graph.

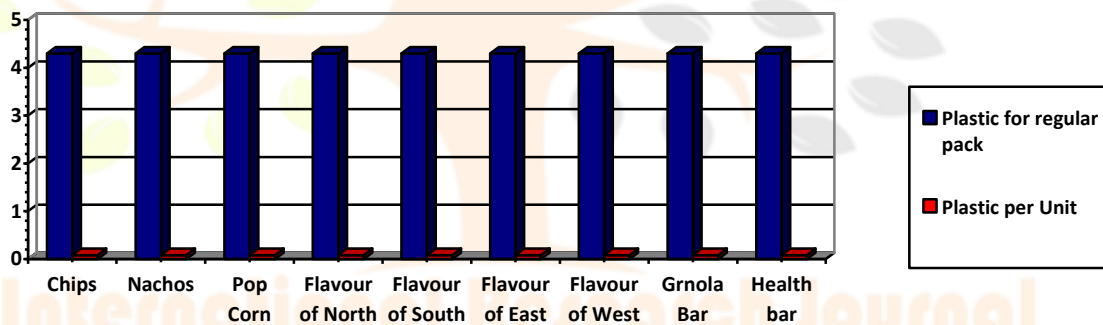


Image 12: Below image shows the weight of empty packet of snacks.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Spreads	Honey	Honey	100	grams	10.6	0.016
	Culinary Sauce	Continental Sauce	100	grams	10.6	0.016
	Culinary Sauce	Cooking Sauce	100	grams	10.6	0.016
	Culinary Sauce	Hot Sauce	100	grams	10.6	0.016
	Culinary Sauce	Mayonnaise	100	grams	28.2	0.0282
	Culinary Sauce	Mexican Sauce	100	grams	10.6	0.016
	Culinary Sauce	Oreintal Sauce	100	grams	10.6	0.016
	Culinary Sauce	Other Culinary product	100	grams	10.6	0.016
	Culinary Sauce	Vinegar	1000	grams	48.7	0.0487
	Dressing	Salad Dressings	100	grams	10.6	0.016
	Dressings	Sandwich Spread	100	grams	15.7	0.0157
	Dressings	Vinegar	100	grams	10.6	0.016
	Ketchup	Tomato Ketchup	100	grams	10.6	0.016
	Ketchup	Other ketchup	100	grams	10.6	0.016
	Jams	Mixed	100	grams	10.6	0.016
	Jams	Marmalades	100	grams	10.6	0.016
	Jams	Other Jams	100	grams	10.6	0.016

Table 13: Represents the product segment of Spreads; some products are packed and weighted in 100 grams & some are packed and weighted in 1000 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in PP, HDPE, PET, PETE type of plastic.

Graph 13: Represents the above data in graph.

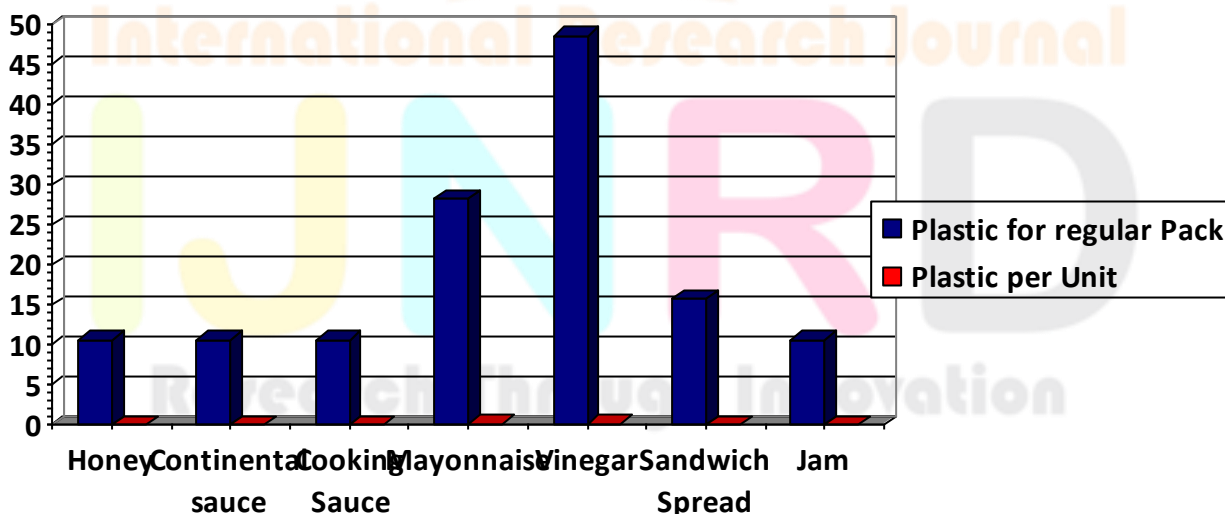


Image 13: Below Images shows the weight of Mayonnaise packet, cheese spread empty box and backing powder box and vinegar empty bottle.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Chutneys	Powders	Chutney Powder	250	grams	26.1	0.1044
	Powders	Chutney Wet	250	grams	26.1	0.1044
	Pickles	Pickel Non veg	250	grams	26.1	0.1044
	Pickles	Pickel Veg	250	grams	26.1	0.1044
	Chutney	syrup	250	grams	43.4	0.0434

Table 14: Represents the product segment of Chutneys; all products are packed and weighted in 250 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE& PP type of plastic.

Graph 14: Represents the above data in graph.

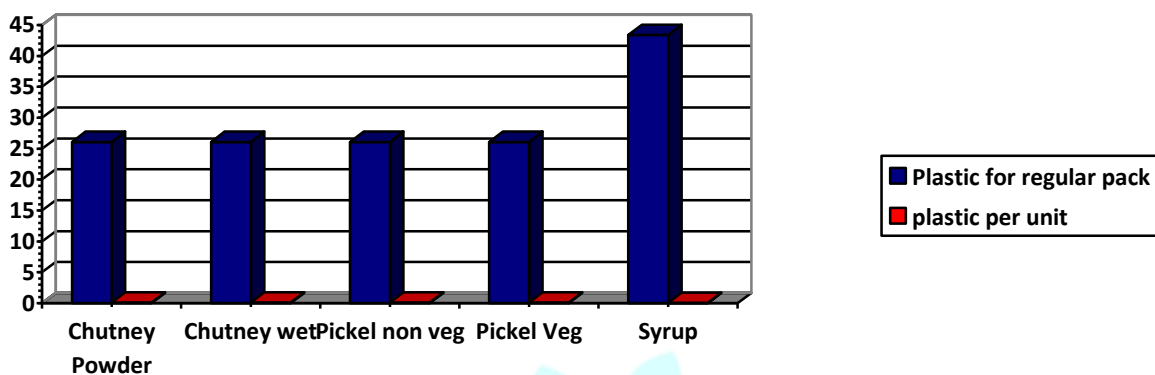


Image 14: Below image shows the weight of empty bottle of Syrup (Chutney) I.e. 43.4 grams.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Something Sweet	Indian Sweet	Chikki	500	grams	13.2	0.0264
	Indian Sweet	Mithai	500	grams	13.2	0.0264
	Indian Sweet	Others	500	grams	13.2	0.0264
	Chocolates	Bars	500	grams	13.2	0.0264
	Chocolates	Candies	500	grams	13.2	0.0264
	sweets	Sonpapdi	250	grams	7.4	0.0074

Table 15: Represents the product segment of Something Sweet; some products are packed and weighted in 250 grams & some are packed and weighted in 500 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

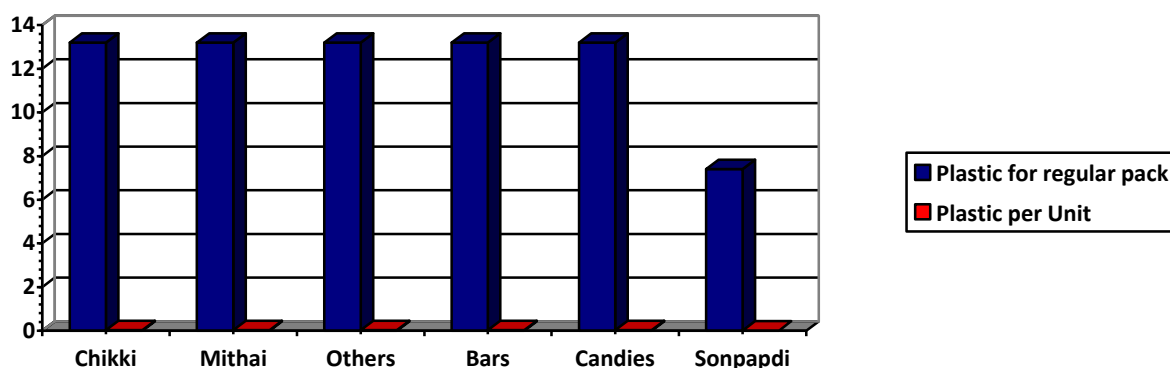


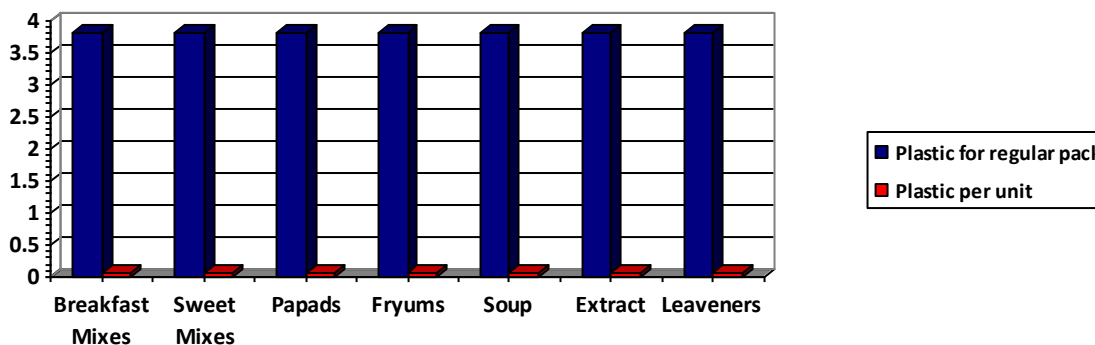
Image 15:Below images show the weight of empty sachet of sonpapdi sweet and Indian sweet box



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Quick Cooks	Mixes	Breakfast Mixes	60	grams	3.8	0.0633
	Mixes	Sweet Mixes	60	grams	3.8	0.0633
	Quick Fry	Papads	60	grams	3.8	0.0633
	Quick Fry	Fryums	60	grams	3.8	0.0633
	Soups	Soups	60	grams	3.8	0.0633
	Baking Needs	Extracts	60	grams	3.8	0.0633
	Baking Needs	Leaveners	60	grams	3.8	0.0633

Table 16:Represents the product segment of Quick Cooks; all products are packed and weighted in 60 grams.. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are majorly packaged in Polythene, film HDPE, PET, PETE type of plastic.

Graph 16: Represents the above data in graph



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Beverages	Aerated Drinks	Alcohol Substitues	250	grams	12	0.048
	Aerated Drinks	Colas	250	grams	12	0.048
	Aerated Drinks	Juices	250	grams	12	0.048
	Other Drink	Energy Drinks	250	grams	12	0.048
	Other Drink	Sodas	250	grams	12	0.048
	Other Drink	Kombucchas	250	grams	12	0.048
	Concentrate	Concentrates	250	grams	12	0.048
	Concentrate	Dehydrates	250	grams	12	0.048
	Tea	Leaf& Dust	1000	grams	8.5	0.0085
	Tea	Green Tea	1000	grams	8.5	0.0085
	Tea	White tea	1000	grams	8.5	0.0085
	Tea	Other Teas	1000	grams	8.5	0.0085
	Coffee	Instant Coffee	1000	grams	8.5	0.0085
	Coffee	Ground Coffee	1000	grams	8.5	0.0085
	Fruit Juice	Juices	250	grams	12	0.048
	Fruit Juice	Syrups	250	grams	12	0.048
	Health Drink	For Adult	1000	grams	87.9	0.0879
	Health Drinks	For Kids	1000	grams	87.9	0.0879

Table 17: : Represents the product segment of Beverages; some products are packed and weighted in 250 grams & some are packed and weighted in 1000 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE type of plastic.

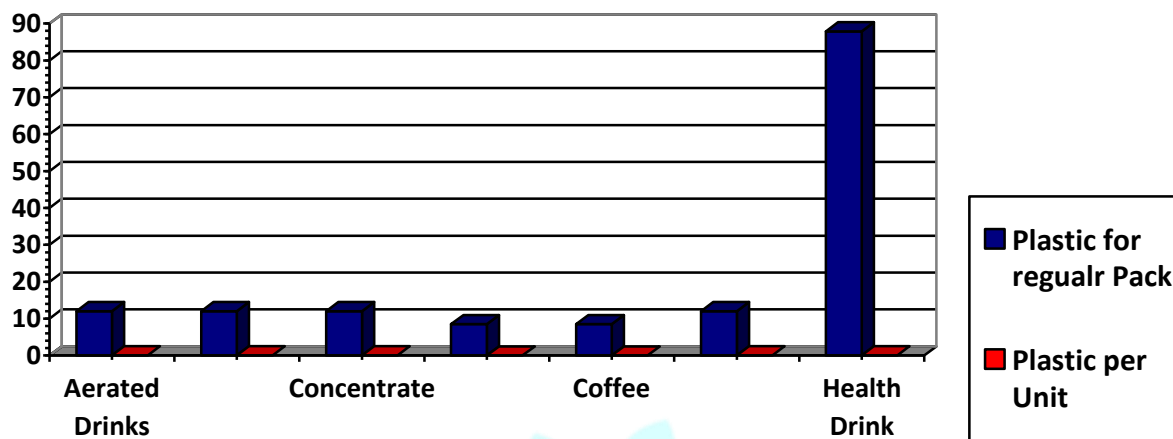


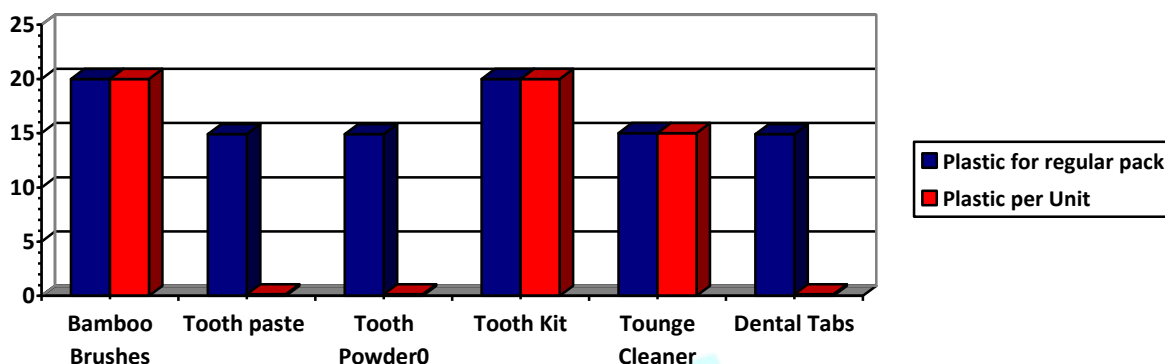
Image17: Below image represents the weight of empty bottle of cold drink and sachet of drink powder.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Dental	Oral Health	Bamboo Brushes	1	piece	20	20
	Oral Health	Tooth Pastes & Powders	100	gram	14.9	0.149
	Oral Health	Tooth Kits	1	piece	20	20
	Toothbrush	Tongue Cleaner	1	piece	15	15
	Toothbrush	Dental Tabs	100	gram	14.9	0.149

Table 18: Represents the product segment of Oil & ghee, some products are packed and weighted in 100 grams & some are in pieces. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in PP,HDPE, PET& PETE type of plastic.

Graph 18: Represents the above data in graph



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Fragrances	Deos	Deo stick	40	gram	8.2	0.205
	Deos	Deo Cream	40	gram	8.2	0.205
	Deos	Deo Powder	40	gram	8.2	0.205
		Hand Sanitizer	24	gram	2.8	0.1167

Table 19: Represents the product segment of Fragrances; some products are packed and weighted in 40 grams & some are packed and weighted in 24 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in HDPE, PET & PETE type of plastic.

Graph 19: Represents the above data in graph

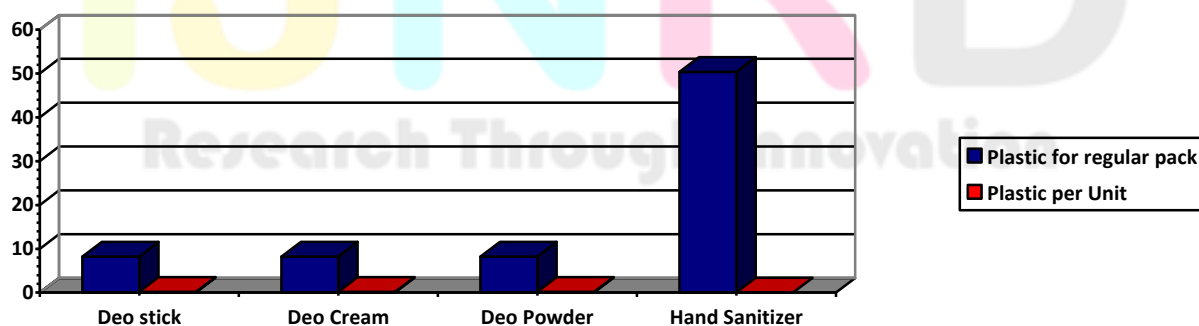


Image 19: Below Image shows the weight of empty bottle of Hand Sanitizer i.e. 50.4 grams.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Hair	Hair Treatment	Henna	24	gram	2.8	0.1167
	Hair Treatment	Hair color	24	gram	2.8	0.1167
	Hair Oil	Basic Oil	240	gram	29.7	0.1238
	Hair Oil	Specialty Hair Oil	240	gram	29.7	0.1238
	Shampoo	Liquid Shampoo	340	gram	43	0.1265
	Shampoo	Shampoo Bars	340	gram	0	0
	Shampoo	Dehydrated Shampoo	340	gram	43	0.1265
	Shampoo	Dry Shampoo	340	gram	26	0.1044
	Shampoo	Conditioner	340	gram	43	0.1265
	Shampoo	DIY shampoo Kits	340	gram	43	0.1265

Table 20: Represents the product segment of Hair; some products are packed and weighted in 240 grams & some are packed and weighted in 340 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE and PP type of plastic.

Graph 20: Represents the above data in graph

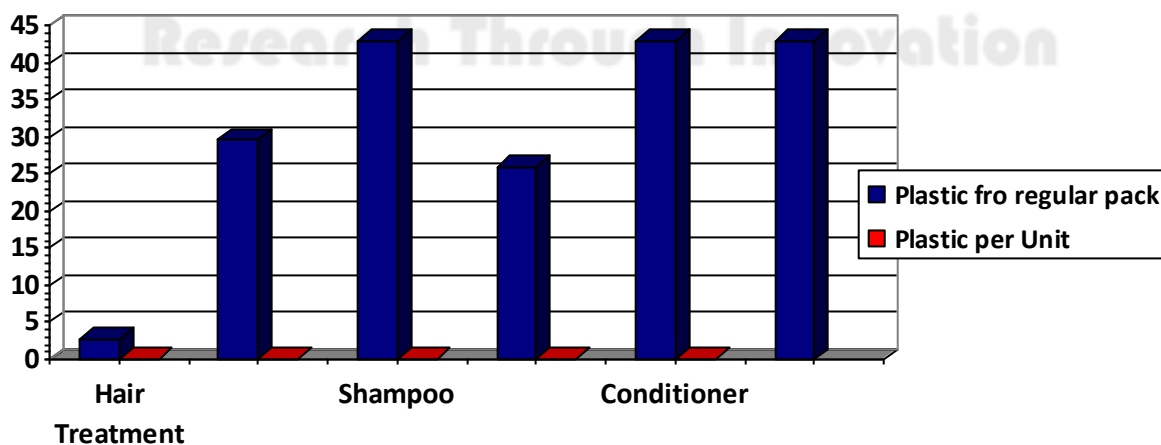


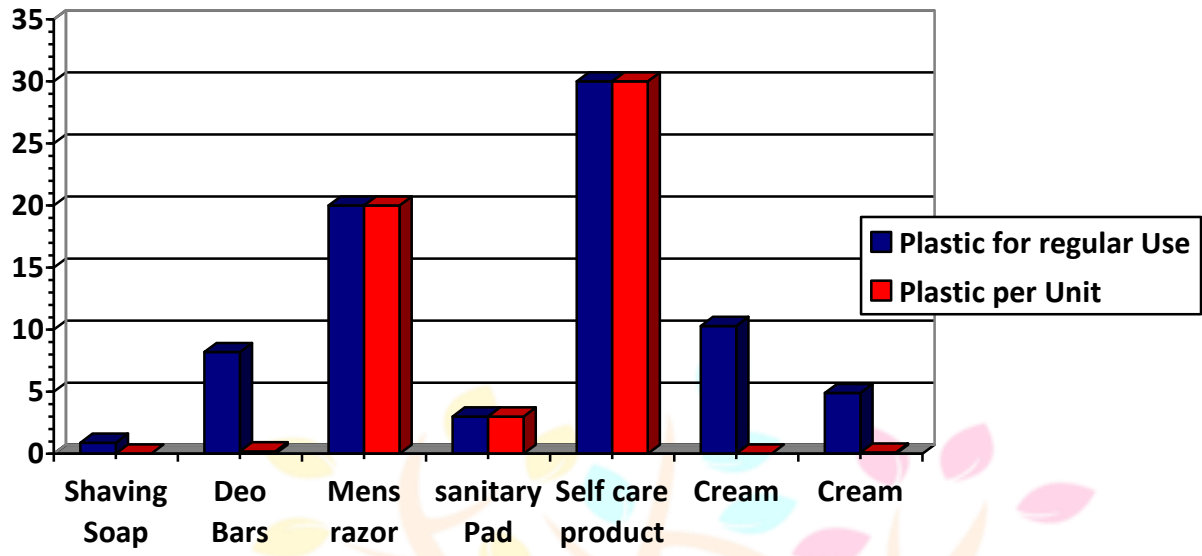
Image 20: Below image shows the weight of empty plastic shampoo bottle i.e. 43.0 grams.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Intimate Need	For Men	Shaving Soap	59	gram	0.9	0.0153
	For Men	Deo Bars	40	gram	8.2	0.205
	For Men	Creams	10	gram	4.9	0.105
	For Men	Deo Spray	40	gram	8.2	0.205
	For Men	Men's Razor	1	piece	20	20
	For Men	Aftershave	50	gram	0	0
	For Women	Women's Razor	1	piece	20	20
	For Women	Shaving Soap	40	gram	8.2	0.205
	For Women	Sanitary Pads	1	piece	3	3
		Self Care Accessories	1	piece	30	30
	For Women	Deo Bars	40	gram	8.2	0.205
	For Women	Deo Creams	40	gram	8.2	0.205
	For Women	Deo Spray	40	gram	8.2	0.205
	For Women	Cream	40	gram	10.3	0.0103

Table 21: Represents the product segment of Intimate Need; some products are packed and weighted in 50 grams & some are packed and weighted in 40 grams and some are in quantity. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE type of plastic.

Graph 21: Represents the above data in graph



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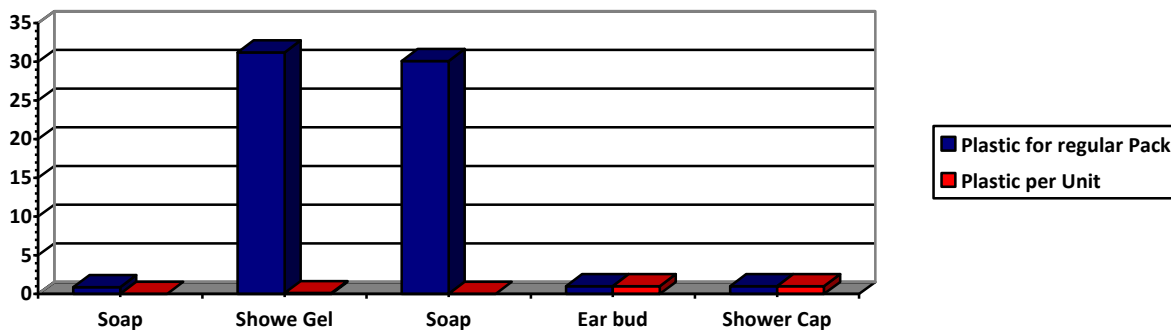
Image 21: Below image shows the plastic packed weight of soap 0.9 gram, self-care products 5.9, 4.7 and 4.9 grams.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Shower	Body Soap	soap	59	grams	0.9	0.0153
	Body Soap	Shower gel	250	milliliter	31.2	0.1248
	Hand Wash	Soap	750	milliliter	30.1	0.0401
	Hand Wash	Creams	750	milliliter	30.1	0.0401
	Hand Wash	Dehydrated Handwash	750	milliliter	30.1	0.0401
		Ear Buds	1	piece	1	1
		Shower Cap	1	piece	1	1

Table 22: Represents the product segment of Shower; some products are packed and weighted in 750 milliliter & some are packed and weighted in 250 milliliter, some in 59 gram and some are in pieces (quantity). In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in HDPE, PET, and PETE type of plastic.

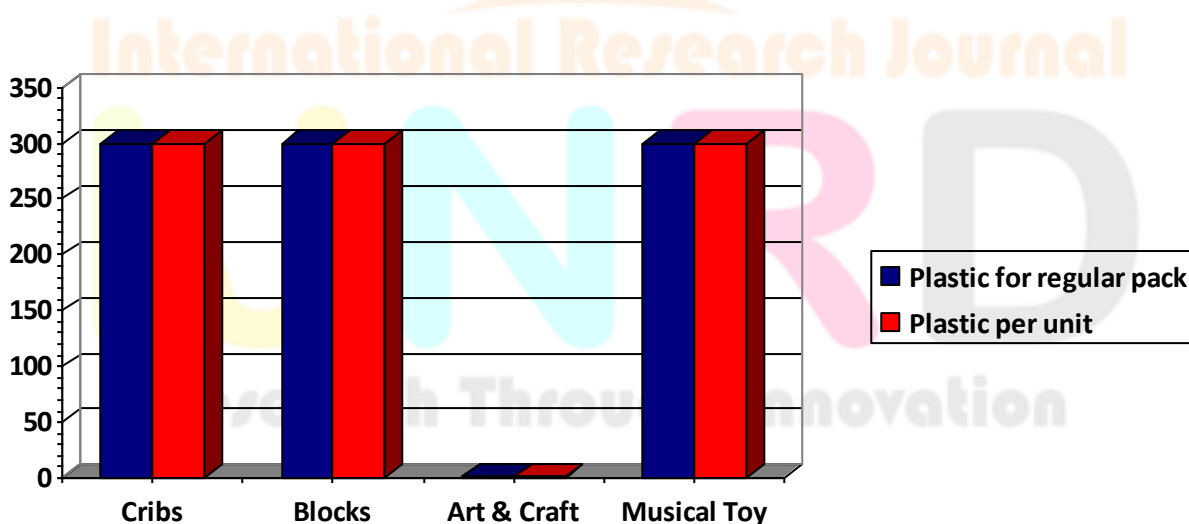
Graph 22: Represents the above data in graph



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Education	Toy & Cribs	Cribs	1	piece	300	300
	Toy & Cribs	Blocks	1	piece	300	300
	Toy & Cribs	Pretend Play	1	piece	300	300
	Toy & Cribs	Art & Craft	1	piece	1	1
	Toy & Cribs	Musical Toys	1	piece	300	300

Table 23: Represents the product segment of Education; all products are packed and weighted in Quantity. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in PVC,LDPE, PP, PE type of plastic.

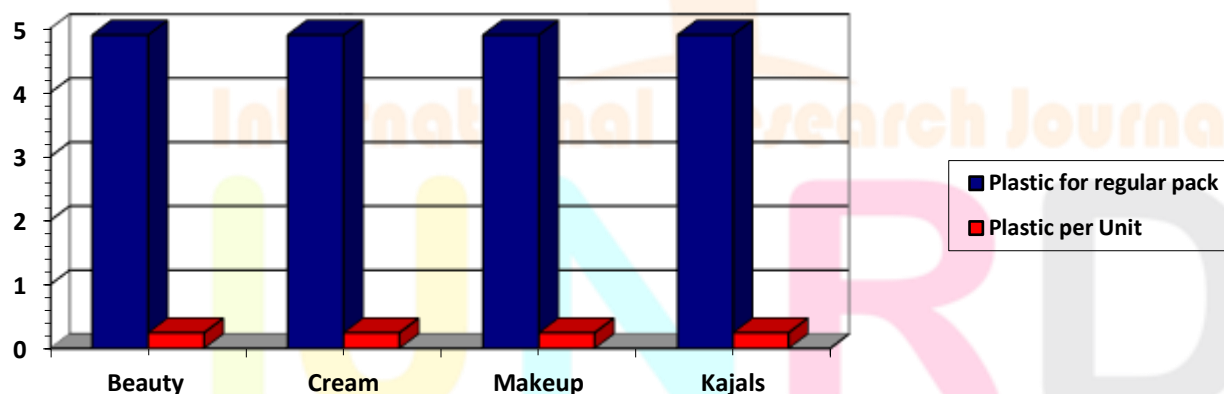
Graph 23: Represents the above data in graph



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Skin	Beauty	Nail	20	gram	4.9	0.245
	Beauty	Lip Care	20	gram	4.9	0.245
	Beauty	Hair	20	gram	4.9	0.245
	Beauty	Face	20	gram	4.9	0.245
	Cream	Body cream	20	gram	4.9	0.245
	Cream	Face cream	20	gram	4.9	0.245
	Cream	Hand Cream	20	gram	4.9	0.245
	Cream	Feet Cream	20	gram	4.9	0.245
	Cream	DIY Cream	20	gram	4.9	0.245
	Makeup	Eyes	20	gram	4.9	0.245
	Makeup	Kajals	20	gram	4.9	0.245
	Makeup	Sprays	20	gram	4.9	0.245

Table 24: Represents the product segment of Skin; all products are packed and weighted in 20 grams. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in HDPE, PET, PP type of plastic.

Graph 24: Represents the above data in grap

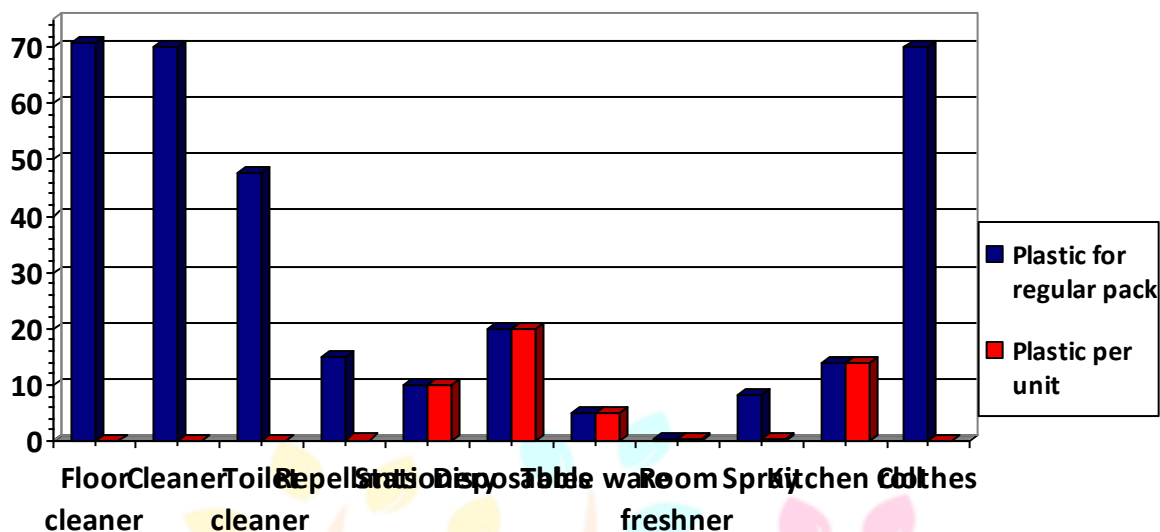


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Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Home Needs	Cleaners	Floor Cleaners	975	grams	70.6	0.0719
	Cleaners	Utensil Cleaner	975	grams	70	0.0718
	Cleaners	Surface Cleaner	975	grams	70	0.0718
	Cleaners	Toilet Cleaner	975	grams	47.7	0.0477
	Repellants	Creams	100	grams	14.9	0.149
	Repellants	Patches	100	grams	14.9	0.149
	Repellants	Spray	100	grams	14.9	0.149
	Stationery	Paper and Pads	1	piece	0	0
	Stationery	Writing and Drawing	1	piece	0.1	0.1
	Stationery	Stationery Accessories	1	piece	10	10
	Disposables	Garbage Bags	1	piece	0.05	0.05
	Disposables	Party Accessories	1	piece	20	20
		Tableware	1	piece	5	5
		Kitchen Accessories	1	piece	3	3
	Room Freshner	Candles	1	piece	0.5	0.5
	Room Freshner	Sprays	20	grams	8.2	0.41
	Tissues	kitchen Roll	1	piece	14	14
	Tissues	Toilet Paper	1	piece	2	2
	Tissues	Others	1	piece	2	2
	Clothes	Laundry	1000	grams	70	0.07
	Clothes	Laundry Detergent	1000	grams	70	0.07
Clothes	Laundry Stick	1000	grams	70	0.07	

Table 25: Represents the product segment of Home Need; some products are packed and weighted in 100 grams & some are packed and weighted in 1000 grams and some are in quantity.. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE type of plastic.

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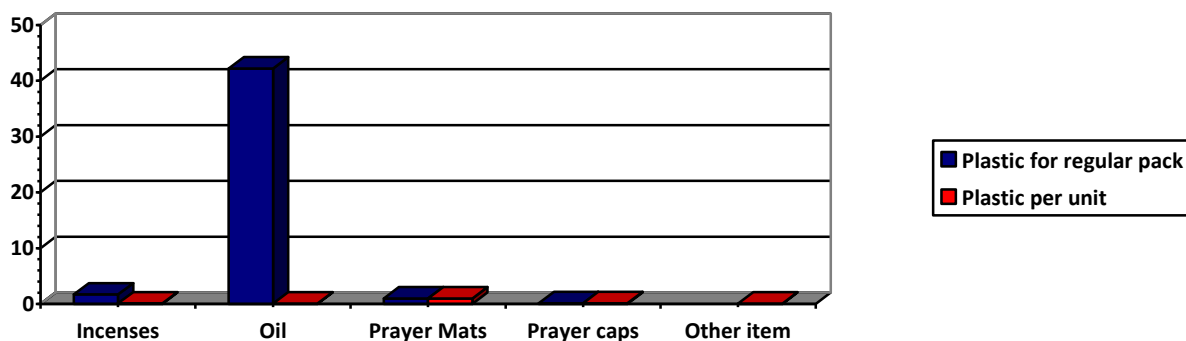


Images 25: Below image shows the weight of empty plastic bottle of Harpic 47.7 gm, floor cleaner 58.7 gm, lizol room cleaner 70.6 gm&harpic small 23.3 gm.



Product Segment	Product	Product class	Quantity	Grammage	Plastic for regular pack (gm)	Per unit Plastic
Worship	Incenses	Dhoops	19.1	gm	1.7	0.089
	Incenses	Agarbattis	19.1	gm	1.7	0.089
	Incenses	oils	1000	ml	42.2	0.0422
	Other items	Prayer Mats	1	piece	1	1
	Other items	Prayer Caps	1	piece	0.1	0.1
	Other items					0.05

Table 26: Represents the product segment of Worship; some products are packed and weighted in 19 grams & some are packed and weighted in 1000 gram and some are in quantity. In the table the amount of plastic in product packaging is mentioned per unit plastic. All these products are mostly packaged in Polythene, film HDPE, PET, PETE type of plastic.

Graph 26: Represents the above data in graph**Image 26:** Below image shows the plastic weight of Incenses Sachet i.e. 1.7 grams

In the above listed table i.e. from table 1 to table 26, it was tried to calculate the per unit plastic of all mentioned products, these all products are consumed by us on our daily life style basis. Thus it was very important to know the amount of plastic we are using through these products use.

A very simple method of calculation was used by weighing the weight of every product on a small milligram weighing machine. Some product had their outer covering packed by cardboard box but somewhere inside the cardboard plastic packaging was also used in the product.

Also we found out that most of the plastic packaging is done by polythene/ HDPE which is mostly found in all items. At some point these are recyclable but mostly it ends up being poisonous to human and other living organism's health. Recycling these plastic is also not a well-defined solution to the problem, as it also consumes energy in the process which is again the major cause for Green house emission. Therefore it is best for us to totally discard the use of plastic packed products.

In this modern market we have noticed the excessive use of single use plastic; which means the plastic can only be use once and then is discarded. These single use plastic packaging is the much dangerous than anything we have in the packaging sector, they end up in the garbage or sewage or blocks the municipal drainage system which makes the life tremendous in rainy season.

The Age of Plastic– Why We Need To Change?

Since the 1950s, the production of plastic has outpaced that of almost every other material. Much of the plastic we produce is designed to be thrown away after being used only once. As a result, plastic packaging accounts for about half of the plastic waste in the world. Most of this waste is generated in Asia, while America, Japan and the European Union are the world's largest producers of plastic packaging waste per capita. Our ability to cope with plastic waste is already overwhelmed. Only nine per cent of the plastic waste the world has ever produced has been recycled. Most ends up in landfills, dumps or in the environment. If current consumption patterns and waste management practices continue, then by 2050 there will be around 12 billion tonnes of plastic litter in landfills and the environment. By this time, if the growth in plastic production continues at its current rate, then the plastics industry may account for 20 per cent of the world's total oil consumption. Most plastics do not biodegrade. Instead, they slowly break down into smaller fragments known as microplastics. Studies suggest that plastic bags and containers made of expanded polystyrene foam (commonly referred to as "Styrofoam") can take up to thousands of years to decompose, contaminating soil and water. The most common single-use plastics found in the environment are, in order of magnitude, cigarette butts, plastic drinking bottles, Executive summary plastic bottle caps, food wrappers, plastic grocery bags, plastic lids, straws and stirrers, other types of plastic bags, and foam take-away containers. These are the waste products of a throwaway culture that treats plastic as a disposable material rather than a valuable resource to be harnessed. Plastic waste causes a plethora of problems when it leaks into the environment. Plastic bags can block waterways and exacerbate natural disasters. By clogging sewers and providing breeding grounds for mosquitoes and pests, plastic bags can increase the transmission of vector-borne diseases like malaria. High concentrations of plastic materials, particularly plastic bags, have been found blocking the airways and stomachs of hundreds of species. Plastic bags are often ingested by turtles and dolphins who mistake them for food. There is evidence that the toxic chemicals added during the manufacture of plastic transfer to animal tissue, eventually entering the human food chain. Styrofoam products, which contain carcinogenic chemicals like styrene and benzene, are highly toxic if ingested, damaging the nervous systems, lungs and reproductive organs. The toxins in Styrofoam containers can leach into food and drinks. In poor countries, plastic waste is often burned for heat or cooking, exposing people to toxic emissions. Disposing of plastic waste by burning it in open-air pits releases harmful gases like furan and dioxin. The economic damage caused by plastic waste is vast. Plastic litter in the Asia-Pacific region alone costs its tourism, fishing and shipping industries \$1.3 billion per year.

Research Finding

Though we tend to understand the impact of global warming and climate change, we have to agree that plastic waste is a very most cause to carbon footprint and climate change. It is the earliest and eldest contributor in polluting the environment. Moreover, with the above study - after analyzing the parameters of usage of plastic as packaging material, their chemical formulation and effect; one can easily understand its hazardous impact on human body.

During the study, it was not possible to conduct research in all plastic packaging segments, so we went into a micro research technique of choosing a category segment for products we use in our daily life (mentioned above in table 1 to table 26), which according to the data is the most widely found plastic waste in landfills, sewage, soil and municipal drains. We tried to calculate the grammage of plastic in products we use in our day to day life.

Through the above data we can state that companies are aware about the impact of plastic used in their product on environment but have no other option to cut their size to sustainable product. . Even the municipal corporations have no idea in dealing with this tiny form of plastic packaging material. If left in the landfills, they break into tiny particles and mix up with the ground water reservoir affecting human health.

Only the better option we have is switching to sustainable marketing i.e. we need to buy products which are plastic free and sustainable, which has less or no impact on global warming. Today, we have plenty of sustainable brands available with us who are against the use of single use plastic packaging; we need to encourage them in the line as if we the consumer after understanding the consequences stops buying the plastic packed product then sooner we will be ahead in sustainability war.

During the research, it was quite surprising to know that plastic has now become the part of our body, its flowing into our blood stream; it's there into our heart.

On an average, production of plastic globally crosses 150 million tons per year. It is estimated that approximately 70% of plastic packaging products are converted into plastic waste in a short span of time. Rests 30% are either recycled or reused. While the recycling rate in India is considerably higher than the global average of 20%, there is still over 9400 tons of plastic waste which are either in landfills or ends up polluting streams or groundwater resources. The recycling of single plastic product can be done 2-3 times only, because after every recycling the plastic material deteriorates due to thermal pressure and its lifespan is reduced. Hence, recycling is not safe and permanent solution to plastic waste. the reuse of plastic is also considered in lowering the plastic waste but at the same time due the chemical extraction used in the product, it may not allow the packaging to be used for other item storage, as it may result into any human disease.

The table below shows the plastic analysis of Central Pollution Control Board (CPCB), which states that in India daily waste generated, is approx. 26000 tons which results to annual calculation up to 9.4 million tons. Out of these 9.4 million tons daily approx. 15600 ton is recycled which results to 5.6 million tons of plastic recycled annually and the left 3.8 million tons of plastic are left over as waste i.e. 9400 tons of plastic waste left over daily.

Country	Daily plastic waste (in tons)	Annual plastic waste (million tons)	Daily plastic waste recycled in tons	Annual plastic waste recycled (million tons)	Daily plastic left over waste (in tons)	Annual plastic waste left over (millions tons)
India	26000 approx.	9.4	15600 approx.	5.6	9400	3.8

Now the question is how do we control the usage of plastic packaging? During our research since we knew the answer that sustainable practice would only lead to plastic free packaging so we went into a physical analysis of it, a store which would help achieving the sustainable objective is studied where the products are plastic free packed and delivered. Not only plastic free rather organic products are also encouraged at Awenest.in store.

This is the options we have to stop the use of plastic packaging in products and single use plastic.

The researcher are free to conduct research study on the stores delivery and packaging segments i.e. how they are contributing towards sustainable development. It is only to state that on our daily basis how much plastic we are saving each day will result into our sustainability on planet.

Conclusion

This research study is done to understand the level of plastic involved during the packaging of products. With no intention to cause harm to any other brands we used both primary and secondary method of research to know the grammage of plastic in products we use. There are brands which are ahead in sustainable development path and some had just started.

It's for the readers to understand the consequences of continuing the habit of switching towards the creation of a sustainable planet.

For better understanding of plastic usage one can make a list of items they are in a habit to use in a month. Once the products ingredient material finishes after use the person himself can evaluate the left over plastic packaged cover. Likewise, by slowing down the usage by passing time we can calculate how much plastic we saved.

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