**What are Single-use plastics (SUP)?**

Plastics are one of the most revolutionary inventions. It is durable, does not corrode, hygienic, and light-weight. It has a number of uses – in industries as well as our daily lives. It is mostly used in packaging. There are two main types of plastics: 1) Thermoplastics 2) Thermosets. Thermoplastics can be reused – once they are used, they can be heated at temperatures high enough to melt them, reshaped, and cooled, ready to be used again. Thermosets, on the other hand, cannot be reused. Their structure changes when they are reheated after a use. Plastic is non-biodegradable, but it is photodegradable. When it is exposed to UV-radiation, it disintegrates into smaller fragments known as microplastics.

Single- use plastics, or SUP as it is generally referred to, are that are used only once. After that use, they are either thrown away or recycled. This type of plastic is generally used for packaging. They are also, sometimes, referred to as disposable plastics since they are disposed after a single use. These are the plastics that we use in our day to day lives, for example, straws, milk pouches, ketchup pouches, pouches for condiments, etc.

The main polymers that are used in the making of SUPs are LDPE (Low Density Polyethylene), HDPE (High Density Polyethylene), PS (Polystyrene), EPS (Expanded Polystyrene), PET (Polyethylene Terephthalate), and PP (Polypropylene). Different types of polymers are used to manufacture SUPs for different purposes. For example, LDPE is used to make bags, trays, etc., HDPE is used to make shampoo bottles, ice cream containers, etc., PS is used to make cutlery, and plates and cups, EPS is used to make hot drink cups, insulated food packaging etc., PET is used to make disposable water bottles, biscuit trays, etc., and PP is used to make microwave dishes, potato chip bags, etc.

The main sectors in which SUP is used are Textiles, Industrial Machinery, Consumer and industrial products, Transportation, Building and construction material, Electrical / Electronics, and Packaging. However, packaging uses the maximum amount of SUP. The amount of plastic produced at a global level every year is mind-boggling – nearly 400 million tons. The maximum production of single-use plastic is done in North East Asia, almost 26%, followed by North America (21%), and Middle East (17%).

Since plastic takes thousands of years to degrade, it is causing major harm to the environment. It is disposed off in landfills and oceans. This endangers the marine life in the ocean. There have been multiple instances of marine animals and fishes found dead on the shores, entangled in plastic. Plastic has also been found in the stomachs of fishes as well as animals like cows. Single use plastic is one of the major reasons for this. Because of single use plastic products, the amount of waste plastics keeps on increasing which harms the environment around us.

Multiple companies in Canada have started to use alternative products instead of products made out of single-use plastics. Some of these companies include A&W, and IKEA. Provinces in Canada are striving hard to discourage companies and people from using SUPs. For example, Montreal has banned plastic bags. The businesses who give away plastic bags are being penalised. Another example is of Prince Edward Island. P.E.I has banned SUPs. The act is known as ‘Plastic Bag Reduction Act’ whereby retailers are required to charge 15 cents for plastic bags.

Thus, single use plastics are a big threat to the environment around us. Countries all over the world have started to make an effort towards reducing the amount of single use plastic used, in order to save the planet.

CITATIONS:

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