



Puducherry ENVIS Hub

Host Centre: Puducherry Pollution Control Committee
Funded by Ministry of Environment, Forest & Climate Change
Government of India, New Delhi

Iconic Week Celebrations
under 'Azadi Ka Amrit Mahotsav'
to avoid the use of Single Use Plastics".

4th to 10th October, 2021



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ENVIS Puducherry

<https://dste.py.gov.in/Envispdy/>

Avoid Single-Use Plastic

Single-use plastic plays a huge role in polluting our environment and if we ban the use of single-use plastic in our lives, then we can stem the worsening of the current situation. All we have to ensure is to minimize the amount of plastic that gets accumulated in our trash and we don't even need to plastic that we'll only use once. What we need, is to put actions to our words and to ban single-use plastics from our lives.



Plastic Waste in India

1. According to the Central Pollution Control Board (CPCB), India generates close to 26,000 tonnes of plastic a day and over 10,000 tonnes a day of plastic waste remains uncollected.

2. According to a Federation of Indian Chambers of Commerce and Industry (FICCI) study the plastic processing industry is estimated to grow to 22 million tonnes (MT) a year by 2020 from 13.4 MT in 2015 and nearly half of this is single-use plastic.

3. India's per capita plastic consumption of less than 11 kg, is nearly a tenth of the United States of America (109 kg).

Impact of Plastic Waste

1. Economic Losses: Plastic waste along shoreline has a negative impact on tourism revenue (creates an aesthetic issue).

For example, the Andaman and Nicobar Islands, are under the plastic threat and facing the aesthetic issue because of the [international dumping of plastic waste at the island](#).



Implications for Animals: Plastic wastes have profoundly affected animals in aquatic, marine, and terrestrial ecosystems.

Plastic ingestion upsets or fills up the digestive systems of the animals thus contributing to their death due to intestinal blockage or starvation.

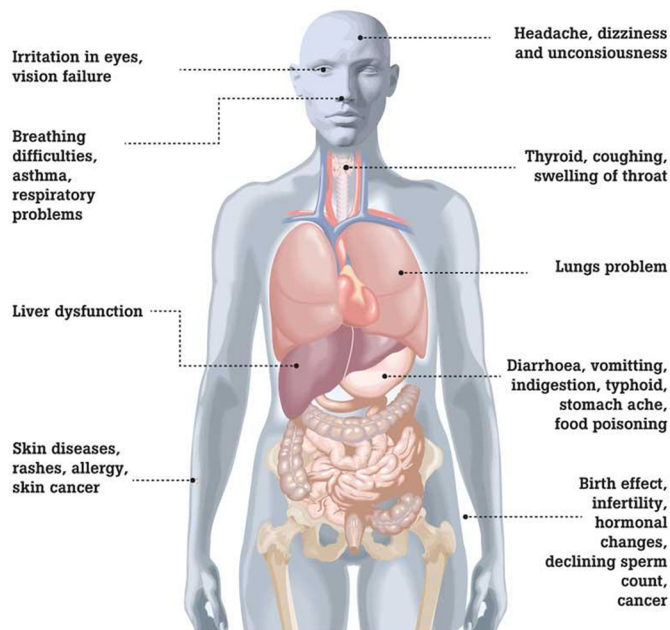
Marine animals can also be **trapped in plastic waste** where they are exposed to predators or starve to death.

The plastics may also contain **toxic chemicals** which can harm the animal's vital organs or biological functions.



1. Implications for Human Health: The chemicals leached from the plastics contain compounds, like polybrominated diphenyl ether (anti-androgen), bisphenol A (mimics the natural female hormone estrogen) and phthalates (also known as anti-androgens), impact human health leading to various hormonal and genetic disorders.

Plastic impact on human health



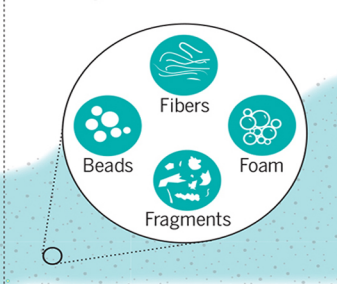
What are the effects of microplastics in humans?

Microplastics (plastic particles <5 mm) can come from the breakdown of plastic objects, car tires, and clothing, but also from their use in cosmetics and other applications. They have diverse shapes and encompass a suite of chemical and biological constituents. Microplastics can enter the human body through ingestion and inhalation where they may be taken up in various organs and might affect health, for example, by damaging cells or inducing inflammatory and immune reactions.

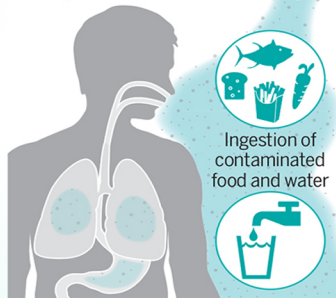
Where do microplastics come from?



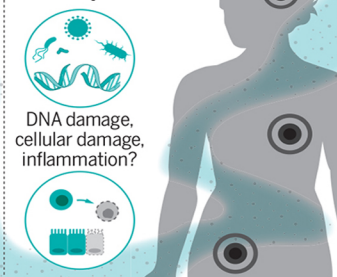
Microplastics are diverse in shape and composition.



Microplastics can enter the body.



Possible health effects of microplastics?



These chemicals can interfere with the functioning of the **endocrine system** and **thyroid hormones** and can be very destructive to women of reproductive age and young children.

2. Land Pollution: Plastics leach hazardous chemicals on land, resulting in the destruction and decline in quality of the earth's land surfaces in term of use, landscape and ability to support life forms.



Air Pollution: Plastic burning releases poisonous chemicals into the atmosphere impacting general well-being and causing respiratory disorders in living beings.



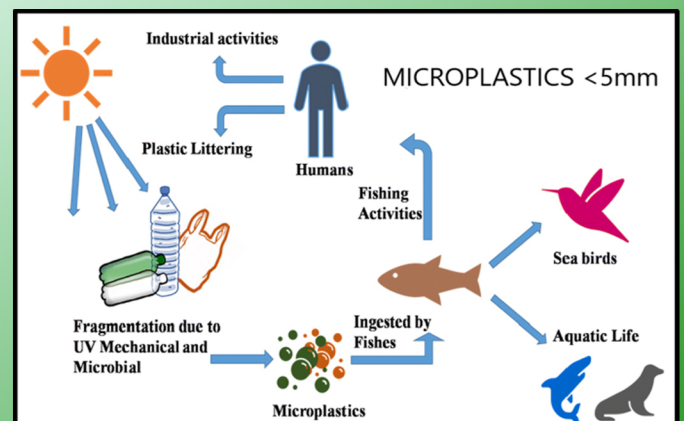
Groundwater Pollution: Whenever plastics are dumped in landfills, the hazardous chemicals present in them seep underground when it rains. The leaching chemicals and toxic elements infiltrate into the aquifers and water table, indirectly affecting groundwater quality.



Water Pollution: Many lakes and oceans have reported alarming cases of plastic debris floating on water surfaces, affecting a great number of aquatic creatures. It leads to dreadful consequences to marine creatures that swallow the toxic chemicals. In 2014, United Nation report estimated the annual impact of plastic pollution on oceans at US\$13billion.



Interference with the Food Chain: Studies determine that the chemicals affect the biological and reproduction process resulting in reduced numbers of offspring thus disrupting the food chain.



When the smaller animals (planktons, mollusks, worms, fishes, insects, and amphibians) are intoxicated by **ingesting plastic**, they are passed on to the larger animals disrupting the interrelated connections within the food chain.

Poor Drainage: Drainage system clogged with plastic bags, films, and other plastic items, causes flooding.



Solution: Plastic Waste Management



Reduce: First step in reducing plastic waste is to minimize single use plastics by supporting a tax on plastic bags, restraint on manufacturing of plastics, and using alternatives of plastic or biodegradable plastic.

Reuse: Reusing plastics can reduce the demand for new plastics, hence it can act as the natural restraint on plastic manufacturing.

Recycle: Plastic recycling is the process of recovering waste or scrap plastic and reprocessing it into useful products. It offers several benefits like:

1. Economic benefits due to value addition
2. Generates employment
3. Reduces depletion of fossil fuel reserves.
4. Reduces landfill problems
5. Recycling of plastics requires less energy



(SINGLE-USE PLASTIC)

SUP-FREE!

City of

Puducherry

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TIPS TO
REDUCE
SINGLE-USE
plastics

Join us this **OCTOBER** for the **SUP CHALLENGE!**

City Council is challenging local residents and businesses to stop using SUPs - for good!

What's SUP? Single-use plastic is recyclable or disposable plastic that is only used once before it's tossed in a bin. SUPs were designed for convenience; they aren't environmentally sustainable and add extra costs to our management of waste. If we 'choose to refuse' SUPs as individuals, we can reduce our consumption of waste as a community.



PACK
LUNCH IN
REUSABLE
CONTAINERS



BUY
BULK



USE SOAP &
SHAMPOO BARS
INSTEAD OF
BOTTLES



DRINK
FROM A
REUSABLE
COFFEE CUP



USE A
REUSABLE
WATERBOTTLE
AND FILL IT
FROM THE TAP



EATING OUT?
BRING YOUR
OWN
CONTAINER
FOR LEFTOVERS



SKIP THE
PRODUCE BAGS
AND PACK
YOUR FRUIT &
VEGGIES LOOSE



SAY
NO TO
PLASTIC
STRAWS



USE REUSABLE
SHOPPING
BAGS



AVOID
BUYING
SINGLE-USE
PRODUCTS



USE
CLOTH
DIAPERS



USE JARS
& BEESWAX
WRAPS FOR
LEFTOVERS
AT HOME



Avoid Single Use Plastic

**LOVE YOUR
CITY**