

Plastics in Our Lives: Health Risks and Environmental Threats

The Crucial Role of Plastics in Daily Life

Plastics are essential in our daily lives, from lifesaving drugs to safe drinking water stored in polyvinyl chloride bags. However, the increasing use of single-use plastics raises concerns. According to the United Nations Environment Programme, global plastic production reaches approximately 430 million tonnes annually. Unfortunately, two-thirds of this production consists of short-lived products that quickly become waste.

The Urgent Need for Regulation

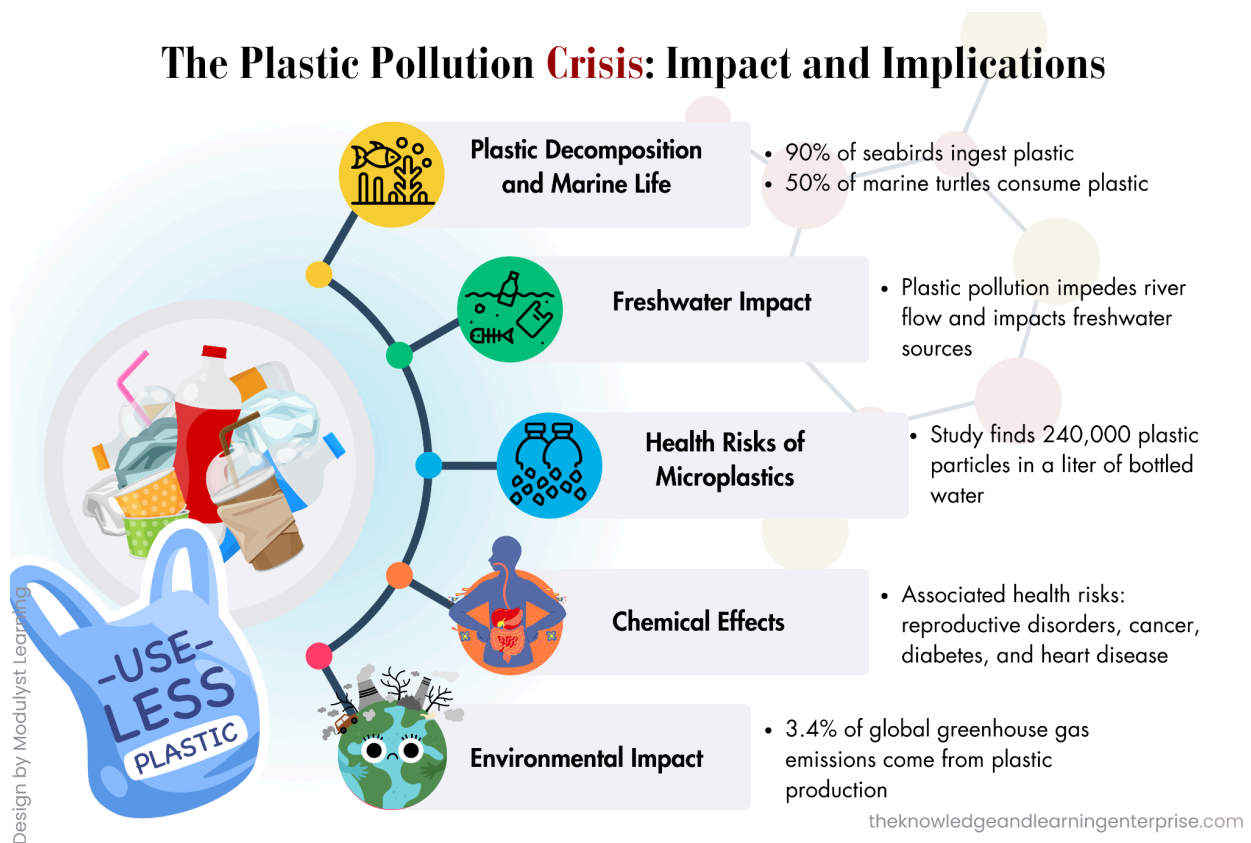
This plastic waste often lands in landfills, contaminating the environment and posing health risks. So far, the world has generated seven billion tonnes of plastic waste, but only 10% has been recycled. The Ellen MacArthur Foundation warns that by 2050, plastic weight in oceans may surpass fish weight. Plastic pollution extends even to the deepest ocean trenches, such as the Mariana Trench, nearly 11 kilometers deep.

Plastic's Environmental Impact

Plastic breaks down over time, increasing pollution levels long after disposal. Researchers estimate that 90% of seabirds have ingested plastic, and half of all marine turtles have consumed it. Images of marine life suffocating from plastic waste are widespread. On land, plastic impedes river flow and pollutes freshwater sources. Moreover, as plastics break down into micro and nano-plastics, they pose serious health risks to

humans. A recent study found about 240,000 plastic particles in a liter of bottled water, identifying seven types of plastics, including polyamide and polyethylene terephthalate (PET).

Chemicals within plastic disrupt the endocrine system, which affects hormonal regulation. These chemicals link to reproductive disorders, cancer, diabetes, and heart disease. Yet, most plastics remain unregulated. Furthermore, humans face exposure to these harmful chemicals through contact with plastic, as well as via air, water, and dust.



Plastic production significantly contributes to greenhouse gas emissions, worsening global climate change. Petrochemicals derived from oil and gas currently account for 98% of single-use plastics produced. Research indicates that plastic production contributes 3.4% of global greenhouse gas emissions. Meanwhile, companies are increasing plastic production to compensate for declining fossil fuel demand amid the global shift towards renewable energy.

Addressing Global Plastic Pollution

In 2022, the United Nations launched a process aimed at creating a legally binding treaty to address global plastic pollution. An International Negotiating Committee (INC) was formed to facilitate this effort, with the fifth meeting (INC-5) held in Busan, South Korea, last December. While this meeting aimed to conclude two years of negotiations, countries struggled to agree on crucial issues, including whether to impose limits on plastic production.

Similar to climate negotiations, distinct groups emerged among countries. The 'High Ambition Coalition,' led by developed nations like the European Union, advocates for eliminating single-use plastics. Conversely, oil and gas-producing nations argue that the treaty should prioritize recycling and waste management improvements. These nations utilized delaying tactics, such as introducing bracketed text, to indicate a lack of consensus in the proposed treaty. UN rules require a unanimous agreement on the treaty's text for binding action.



Significant gaps remained in Busan regarding a collective vision to tackle global plastic pollution. Delegates returned home for the year-end holidays but promised to resume discussions soon. Although future meeting timelines and locations remain undecided, the world is getting closer to reaching an agreement on plastics.

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