

Plastic Pollution: an Environmental Concern

Subha Ganguly¹, Sunita Choudhary²

¹Associate Professor, ²Assistant Professor, Department of Veterinary Microbiology, Arawali Veterinary College (Affiliated with Rajasthan University of Veterinary and Animal Sciences, Bikaner), N.H. – 52 Jaipur Road, V.P.O. Bajor, Dist. Sikar, Rajasthan, India

Abstract-- Plastic pollution occurs by plastic goods which vary according to its chemical configuration. It depends on the method of its polymerization and the method of natural degradation. Depending on the size, plastic pollutants are categorized into micro-, meso-, or macro debris.

Keywords--Environment, Plastic, Pollution

I. INTRODUCTION

The plastics exposed to ocean decompose rapidly than those to land. The debris waste products formed due to plastics are categorized into primary and secondary wastes. Secondary plastic wastes are produced from the degradation of primary wastes. [1]

The human population, wind and ocean currents, coastline geography, urban areas and trade routes contribute to the extent of spread of plastic pollution in our environment. [2]

II. EFFECT ON ENVIRONMENT

Soil:

Harmful chemicals are released by seepage in the groundwater and in the ecosystem especially in the soil from the plastics. Polymer and nylon degrading bacteria like *Pseudomonas*, nylon-eating bacteria and *Flavobacteria* contribute to the release of methane gas from the breakdown of nylon which contributes towards greenhouse gas and global warming. [3, 4]

Water:

Plastic contaminates the water bodies and oceans by storm-water runoff, flowing into watercourses or directly discharged into coastal waters.

This pollution enters the food chain thereby causing hazardous long term carcinogenic effect to fishes, animals and human beings due to the release of diethylhexyl phthalate, lead, mercury and cadmium. Oceans are generally contaminated from micro-plastic debris which floats on the sea surface. [5, 6]

III. CONCLUSION

For reducing the incidences of plastic pollution, research endeavors should be employed to convert petroleum-based plastics to bioplastics. Also, educating and spreading the awareness among people to clean the water bodies like rivers, ponds and lakes can reduce the mortality of fishes and sea animals due to plastic pollution.

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