

# Microplastic Pollution Studies in India – A Review

Anish Kumar Warriar

Centre for Climate Studies, Department of Civil Engineering,  
Manipal Institute of Technology, Manipal Academy of Higher Education,  
Manipal-576104, Karnataka, India

## Abstract

Plastic has evolved into a necessary component of modern life. Its durability, low weight, and adaptability make it ideal than any other material for a variety of uses. However, it has its own unique set of environmental issues, mostly because it is not biodegradable. Microplastics are small pieces of plastic trash (0.1  $\mu\text{m}$  to 5 mm). They are widespread in our surroundings and have been found in all five realms of the globe. Microplastic experts are very worried about what will happen to these tiny pieces of plastic that float in the oceans and are suspended in the air. In the past 20 years, significant research on microplastic contamination and its consequences on the biota in various parts of the world has been published. Microplastic pollution studies in India are in their nascent stages of development. However, in the past few years, it has picked up the pace. Most of the research work has been made on coastal ecosystems, including beaches, estuaries, and offshore islands. Besides, the effects of microplastics on different kinds of biota have also been studied in detail. The presence of microplastics in edible salts has also been reported. Very few reports on freshwater microplastics are available for a large country like India, which is bestowed with several rivers and lakes. No significant research has been done on the distribution and prevalence of airborne microplastics, their effects on human health, or their effects on soil qualities in agricultural and forest soils.



Additionally, there are no studies to evaluate the effectiveness of wastewater treatment facilities in India's big and minor cities. Because of this, it is important to know everything about microplastic pollution in India so that the right policy measures can be planned and strictly implemented to protect the environment.