

CURRENT RESEARCH TRENDS ON PLASTIC POLLUTION AND ECOLOGICAL IMPACTS ON THE SOIL ECOSYSTEM: A REVIEW

Dr. Manjula Jain*

* Sr. Professor,
Department of Finance & Marketing,
Teerthanker Mahaveer Institute of Management and Technology,
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, INDIA
Email id: jainmanjula76@gmail.com

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ABSTRACT

The issue of plastic contamination in the environment is now gaining international attention. The improper disposal of unused or abandoned plastic trash pollutes the environment. The disposal of municipal wastewater effluent, sewage sludge landfills, and plastic mulch generated by agricultural operations, in particular, is a significant problem and a major source of soil contamination. In contrast to plastic contamination in the marine and freshwater environments, soil pollution has received less attention. We addressed plastic pollution in the soil ecosystem and looked at studies on the impacts of plastic wastes, particularly microplastics, on the soil ecosystem in this study. We discovered that earthworms are often employed as test organisms in studies of the impact of soil plastic contamination on organisms. To fully comprehend the impacts of plastic pollution on the entire soil ecosystem, further study into the effects of plastic on other species models is needed. Furthermore, we provide additional insights for future studies on plastic pollution and soil ecotoxicity of plastic wastes, as well as a study path.

KEYWORDS: *Ecological, Ecosystem, Plastic, Pollution, Soil.*

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