

Introductory Chapter: Navigating the Marine Pollution Crisis – From Microplastics to Metal Contamination and Community Resilience

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Scope

The oceans, covering about 70% of our planet, are essential for life, regulating climate, supporting biodiversity, and providing livelihoods for millions. They are often regarded as the “lungs of the Earth”. Yet, the health of the world’s oceans is increasingly under threat from a wide range of pollutants, placing ecosystems, economies, and communities at risk. Marine pollution is a multifaceted global issue that encompasses the introduction of harmful substances or energy into the marine environment, resulting in deleterious effects on marine life, human health, and ecosystem services [1]. Marine pollution encompasses a range of contaminants, from microplastics to heavy metals like lead, mercury, and cadmium.