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Altri autori (Persone)	ChoudhuryMoharana SamantaPalas
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Nota di contenuto	Micro and Nano Plastics, the Globally Emerging Environmental and Public Health Crisis -- Environmental Degradation of Plastics Understanding the Mechanisms -- Micro and Nano Plastics Identification and Quantification Methods -- Micro and Nano Plastics Contamination of Air Water, and Soil -- Nano and Micro Plastics Pollution Effects on Physical/Abiotic and Biotic Environment and United Nations’ Sustainable Development Goals.
Sommario/riassunto	This book extensively covers issues and concerns related to plastics and micro/nano-plastics (MNPs) in the environment, offering a

comprehensive exploration beyond simple collection and disposal processes. It uniquely integrates core public health and community medicine aspects with environmental and biodiversity-related consequences, supported by case studies of microplastics and associated components. The book emphasizes the impact of microplastics on environmental, animal, and human health, with a special focus on ecosystems and biodiversity, marine and aquatic ecosystems, agricultural and food safety, air, water, and soil degradation, ecological dysbiosis, and associated health hazards. Readers will encounter a balanced distribution of insights from experienced authors, including professionals from academia and industry across various countries. The chapters cover a wide range of topics, including the mechanisms of environmental degradation of plastics, methods for identifying and quantifying micro and nano plastics, and their air, water, and soil contamination. Readers will also discover the effects of these pollutants on various ecosystems, such as lentic and lotic systems, floodplain aquifers, and even remote regions like Antarctica. The book further explores the impact on wildlife, biodiversity, and human health, addressing critical issues like cardiovascular complications, gut and immune function, and carcinogenicity. This book is an essential resource for students at all academic levels in science, technology, engineering, and medical fields, as well as a valuable reference for government agencies, research institutes, industry professionals, NGOs, and researchers focused on innovation and sustainability. It presents innovative solutions, including bioplastics and nature-based approaches, and discusses the potential for technological innovation in plastics waste management. It extensively addresses the United Nations' Sustainable Development Goals (SDGs) 3, 6, 12, 13, 14, and 15, highlighting the challenges micro-nano-plastics pose for a sustainable future. This volume is particularly relevant for those working towards achieving the environmental protection and public health SDGs.