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### ***Managing for microplastics: A baseline to inform policy stakeholders (IMP.act)***

Human-made marine litter, a novel emergent pollutant with global distribution, has been recognised as a global problem by the United Nations Environment Programme (UNEP) and by the G7 Leaders Summit for its effects on “marine and coastal life, ecosystems and potentially human health”. Its persistence in the marine environment is a major cause for concern and, despite recent efforts to map and estimate amounts, there is still a considerable lack of knowledge on its sources, distribution, and effects on ecological functioning.

This project, “managIng for MicroPlastics: A baseline to inform poliCy sTakeholders” (IMP.act), uses a reference coastal site as a case study, in order to develop a long-term management plan, which can establish a working framework for managing microplastics pollution. The research will involve an ecosystem-based targeted survey in Galway Bay and environs on the West of Ireland. Sampling will focus on microplastics in several habitats including the benthos (intertidal and subtidal) and a variety of marine fauna from different marine habitats. Sources of microplastics will be identified through monitoring several of the major inputs from both outside and within the Bay itself, including the influence of the River Corrib. Through developing a model of the ecosystem, containing both the new field data and previously collected data, the hotspots of accumulation and distribution patterns of microplastics will be assessed. The resulting model could be used as a management tool to inform both managers and policymakers of its potential to identify not only high-risk inputs but also areas where a reduction of input can work towards mitigating and minimising the impacts of microplastics in this area. This baseline data will directly contribute to the 10th descriptor of the Marine Strategy Framework Directive (2008/56/CE) and to the United Nations Sustainable Development Goals, particularly Goal 14: Life Below Water.

Project website: <https://www.joaofrias.com/impact-project>

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