

Institute: Institute of Environmental Sciences

Topic: Climate crisis: a new paradigm for addressing minimization of plastic harm in the era of COVID-19 pandemic

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Background information:

Contemporary environmental discourses have been largely focused on different contributors to the climate crisis including plastic considered as having the strongest impact on the natural environment and public health. The CO₂ emissions directly connected to plastic production, recycling and utilization – estimated to triple by 2050 - requires a re-assessment due to the global COVID-19 pandemic. The already chronic problem of plastic pollution is just becoming more worrying, as the new circumstances result in a constantly growing generation of a new type of pollution originating from single-use items such as gloves, masks, medical suits, cutlery etc. The previously perceived negative roles of plastic experience a major change as health fears appear to outweigh environmental concerns. However, although the effects of the COVID-19 pandemic are more immediate than those of plastic usage, both have a tremendous impact on the environment and public health. Facing both threats requires a major incision into the prevailing plastic governance ensuring a sustainable transition of values and behaviors towards a holistic plastic waste management while considering changing environmental conditions.

The main questions to be addressed in PhD project:

This research project aims at re-assessing the plastic threat reinforced by the COVID-19 pandemic. It will investigate attitudes and opinions towards the harm of plastic to the environment and health, using the interdisciplinary context, investigating the local communities originated from various location of Poland. Moreover, we'll develop an inclusive approach aiming at minimizing the new type of plastic pollution – mainly microplastic - which will comprise a combination of innovative technologies, participatory scenario modelling and knowledge co-creation processes.

Information on the methods/description of work:

The project will utilize a mixed-mode approach with qualitative and quantitative methods. The outputs of the PhD project will be used for comparisons with equivalent research in other countries to validate their relevance and strengthen their practical universality.

Special requirements from the student:

A potential candidate should possess knowledge and experience in working cohesively in an interdisciplinary team environment, demonstrate excellent written and oral Polish and English communication skills. A job experience in practical interdisciplinary (also non-research sector) and participatory research methods would be of advantage.

Place/name of potential foreign collaborator:

1. Prof. Marco Neudecker (Hochschule Hannover – University of Applied Sciences and Arts, Institute of Bioplastics and Biocomposites, Mechanical and Bioprocess Engineering. Haisterberhalle 10A, 30453, Hannover, Niemcy)
2. Dr. Heather Leslie (Univeristy of Amsterdam, Faculty of Science, Science Park 904, 1090 GE Amsterdam, Holandia)

References:

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