

Behaviours to reduce plastic pollution: European citizens perspective

R. Dagiliūtė¹, R. Meištininkas²

¹Department of Environmental Sciences, University Vytautas Magnus University, Kaunas, 44248, Lithuania

²Laboratory of Heat Equipment Research and Testing, Lithuanian Energy Institute, Breslaujos 3, LT44404 Kaunas, Lithuania

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Presenting author email: Rimas.Meistininkas@lei.lt

Introduction. Plastics and microplastic pollution attract research and policy attention due to its negative human health and environmental impacts. Though many of microplastics is intentionally added into the products, the majority of the microplastic particles found in the environment is a result of use and pollution of bigger plastic units. Though, plastics and microplastics in the ocean are identified as one of the main environmental problems (Dilkes-Hoffman et al 2019), they can have negative effects for human and animal health and overall functioning of different ecosystems (Prata et al 2021).

To challenge plastic and microplastic pollution, people's attitudes and behaviour regarding consumption of plastic goods and afterward proper waste management are of importance. European Strategy for Plastics in a Circular Economy (2018) highlights, that consumers play an important role in the transition to the circular economy regarding plastics and by 2030 “citizens are aware of the need to avoid waste, and make choices accordingly”. In addition, habits and social factors influence plastic-related behaviour (Heidbreder et al 2019). Hartley et al. (2018) report that women, older and with a higher level of education individuals are significantly more likely to express behavioural intentions to reduce marine litter. Those authors also indicated that concern about marine pollution predict corresponding behavioural intentions.

This study, referring to the Eurobarometer survey on environmental attitudes (2020), aims to analyse the self-reported actions related to reduction of plastic and microplastic pollution by Europeans and factors influencing those actions taken.

Methods. Analysis of behaviour regarding plastic and microplastic pollution and factors behind is based on the Eurobarometer survey on environmental attitudes (2020). Study covers all EU member states. Analysis is mainly based on descriptive statistics. Regression analysis was applied to reveal the influence of sociodemographic and concern variables for plastics pollution reduction behaviour.

Results. Results show that in general marine pollution is considered as important environmental issue only by 36.5% Europeans. In addition, 49% respondents totally agree and 38.6% tend to agree that they are worried about microplastic pollution. Regarding the actions related to the plastic and microplastic pollution, respondents indicated to avoid of single use plastic products (except plastic bags) (43.8%) and overpacked products (28.4%), and most often Europeans separated waste (65.5%). However, all three actions were taken only by 15% of respondents. The most often those all three actions were taken in Luxemburg (33.3%), Germany (29.4%) and Sweden (28.1%) (Fig. 1).

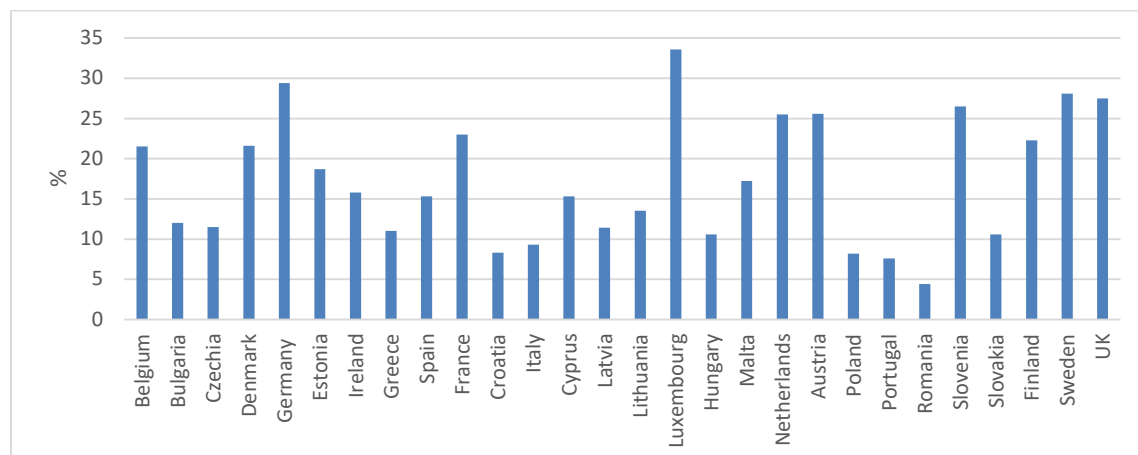


Fig. 1. Frequency of taking all three actions in relation to plastic pollution (avoiding single use plastic products, avoiding overpacked products, separating the waste) by the respondents in EU member states in 2020 (based on Eurobarometer data)

Those with higher incomes, women, and younger as well as those understanding consumption/environment interrelationship tend to take all three actions to reduce plastic pollution ($p < 0.05$). However, being worried about plastic and MP impacts and considering environmental protection personally very important does not translate into all actions taken.

The most important in reducing plastic waste and littering for the Europeans appeared to be the role of industries and retailers, as well as product design (66.3%); extra charges for single use plastic products are acknowledged as very important measure only by 33.3% respondents.

Conclusions. Results indicates that marine pollution as a problem is acknowledge by less than a half of EU citizens. Nevertheless, the role of consumers if not of the least importance tackling plastics and microplastics pollution problem and pro-environmental behaviours are crucial to combat it. However, analysed behaviours related to the reduction of the plastic pollution are characteristic only to some 15% Europeans, majority of them conduct only one of the three analysed actions. Different factors behind pro-environmental behaviour suggest informational campaigns to be more targeted and specific, especially considering the role of social media as an emerging source of environmental information.

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