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Hidden Climate Potential: Food Waste Prevention in EU and National Policy Frameworks

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Abstract

Aligned with the European Union (EU) climate and sustainability strategies, combating food waste (FW) stands as a cornerstone for fostering a fair, healthy, and environmentally friendly food system. Moreover, the impact of FW extends beyond the food system, generating environmental, social, and economic consequences. Thus, FW prevention is increasingly recognised as a strategic lever for climate change mitigation, particularly through the reduction of greenhouse gas emissions. Despite its potential, FW prevention is often addressed through fragmented policies and mainly within waste management. This highlights the need to assess whether it is adequately integrated into broader climate and energy policies in a coordinated, cross-sectoral way at EU and national levels. Based on the approach adopted by Szulecka et al. (2019), this study adopts a multi-level governance perspective (Hooghe & Marks, 2010), recognising that food waste (FW) prevention is shaped by interactions across supranational (EU), national, and sub-national levels, as well as by both public and private actors. The empirical analysis is primarily based on document analysis (Bowen, 2009), combining a systematic mapping of policy frameworks with a structured qualitative assessment. The study covers European-level policies, regulations, treaties, directives, and non-binding instruments across thematic areas potentially linked to FW prevention, including waste management, climate change mitigation, energy efficiency, green public procurement, animal welfare, and social rights. Following the identification of relevant policy documents, an analytical framework was developed to assess their content in a consistent and comparable way, based on OECD (OECD, 2025). The analysis focuses on key dimensions such as scope and focus, level of ambition, implementation mechanisms, monitoring and evaluation provisions, and the degree of integration and alignment with other policy domains. The scope of the research spans both EU-level frameworks and national policies. The analysis includes countries participating in the WASTEWISE project (Sweden, Switzerland, Spain, Finland, Romania, and Italy), as well as a selected group of additional countries (France, the United Kingdom, Germany, Denmark, and the United States). Overall, the research highlights that, despite increasing policy attention to FLW across the EU and its Member States since 2018, its potential as a climate mitigation lever remains largely underutilized and unevenly implemented. A more systematic integration of FLW prevention into climate, energy, and

agricultural policy frameworks could unlock substantial co-benefits in terms of emissions reduction, resource efficiency, and food system resilience. This study aims to provide evidence and methodological insights to support governance, regulatory alignment, and strategic decision-making on food loss and waste prevention and its integration into climate and sustainability policies, highlighting its role as a strategic tool for reducing greenhouse gas emissions, for EU and national policymakers and researchers.

Keywords: food loss, food waste, policy, climate change, mitigation

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