

# Sustainability Assessment of Food Waste Prevention

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**Abstract:** *The last few years, a lot of measures addressing food waste have been proposed and implemented. Recent literature reviews call for more evidence on the effectiveness or food waste reduction potential of these measures. Furthermore, very few information is available on the extent to which food waste measures have been evaluated based on their economic, environmental and social performance. This review closes this knowledge gap by looking at the methodologies currently used in literature to evaluate food waste prevention measures, using a pre-defined assessment framework with quantitative evaluation criteria. In total, evaluations were examined for 25 implemented measures with measured outcomes and 23 proposed measures with projected outcomes. The paper concludes that there is a great variety in how an evaluation is performed. Additionally, in many cases, economic, environmental, or social assessments are incomplete or missing, and efficiency is only seldom calculated. This is particularly true for implemented measures whereas proposed measures with projected outcomes tend to have a more thorough evaluation. This hampers practitioners and decision-makers to see which measures have worked in the past, and which ones to prioritize in the future.*

**Keywords:** Food Waste, Prevention, Measures, Evaluation, Performance, Effectiveness, Efficiency, Sustainability, etc.

## REFERENCES

- [1] Witzel, J., Hooge, I. E., de Rohm, H., Normann, A., Bossle, M. B., Grønhøj, A., et al. (2017). Key characteristics and success factors of supply chain initiatives tackling consumer-related food waste – A multiple case study. *J. Clean. Prod.* 155, 33–45. Doi: 10.1016/j.jclepro.2016.11.173
- [2] Asselin-Balençon, A. C., and Jolliet, O. (2014). Metrics and indices to assess the life cycle costs and greenhouse gas impacts of a dairy digester. *J. Clean. Prod.* 79, 98–107. Doi: 10.1016/j.jclepro.2014.05.024
- [3] Bellemare, M. F., Çakir, M., Peterson, H. H., Novak, L., and Rudi, J. (2017). On the measurement of food waste. *Am. J. Agric. Econ.* 99, 1148–1158. Doi: 10.1093/ajae/aax034