

Possibilities to reduce household food waste based on consumers' opinions in the light of the SDGs

Atilla Kunszabó¹ – Gyula Kasza^{1,2} – Dávid Szakos¹ – Judit Oláh³ – József Popp³ – Zoltán Lakner² –
Annamária Dorkó¹ – Miklós Süth¹

¹ University of Veterinary Medicine Budapest, ² Hungarian University of Agriculture and Life Sciences,
³ John Von Neumann University

Introduction and aims

The Sustainable Development Goal 12.3 of the United Nations aims the 50% reduction of consumer food waste by 2030. The EU has adopted this strategic goal, but Member States are still discussing how to set EU-level legislative targets. To support decision making, a baseline must be defined, together with the exploration of consumers' perception on their capabilities to reduce food waste (Abeliotis et al., 2014; Szakos et al., 2020). Food waste quantification is a recommended instrument of in-depth food waste research (Oláh et al., 2022), and segmentation of the consumers is a key tool to define target groups of intervention actions (Kunszabó et al., 2022). Consumer food waste data can be biased by several factors in different measurement methodologies (Quested et al., 2020; van der Werf, 2020). This paper presents the results of a food waste survey conducted among Hungarian households. The study was designed to reveal household individuals' pre-intervention beliefs about the amount of food waste and their post-intervention perceptions in terms their capability to cut down food waste levels.

Data and methodology

Food waste data was collected in 2021 with a diary-based survey in accordance with the recommendations of FUSIONS (2014). The methodology had been already used in similar research settings in the same geographical area (Szabó-Bódi et al., 2018; Kasza et al., 2020). In total 282 Hungarian households (counting 758 individuals) were involved in the study. The households had to measure and register all wasted food (food materials that were discarded to communal waste, communal sewer, composted or used as animal feed and not consumed by humans) for an entire week. Food waste quantification was supplemented with preliminary and subsequent questionnaires, completed by that member of the households who was mainly responsible for food shopping and handling. In the first case the respondents gave estimations about the food waste levels of their own households. After the measurement intervention, the questionnaire explored the respondents' perception of their capability to reduce their actual food waste levels.

Results

The average estimated food waste was 33.7 kg/capita/year according to the preliminary questionnaire-based study, while the actual, measured amount was 65.5 kg/capita/year. About 84% of the households underestimated their food waste generation. Only 2% of the respondents had a realistic estimation, while 14% overestimated their waste levels (we calculated with an +/- 5% allowed deviation level). Most of the households (77%) considered themselves capable of reducing food waste, 17% of them significantly, and 60% only to some extent. The most frequently wasted food types include ready-to-eat food (especially home-made meals), fruits and vegetables and bakery products. The log books contained abundant information in regard to the most frequent causes of food wasting. Target groups where further improvement is needed have been defined and characterised.

Conclusion

The study explores consumer perspectives of reducing household food waste and provides policy implications for the achievement of SDG 12.3. The research demonstrated that consumers of

Hungarian households significantly underestimate their food waste levels, but they feel capable of reducing the quantity of discarded food. Based on the results, target groups of consumers for further awareness raising activities have been identified.

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