

# **Feasibility of food waste reduction options in the context of urban Sri Lanka**

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It is a worldwide phenomenon that food is produced but remains unconsumed along the value chain. Wasting food entails various impacts on the economy, society and environment. One goal of the United Nations calls for reducing food waste by half until 2030 on a global scale. Multiple actors are involved in the process of finding and implementing strategies which aim to solve the food waste challenge.

In the case of the city Colombo, markets and restaurants generate a significant amount of food waste and there is a need for improving waste management in urban Sri Lanka. This thesis has the objective of exploring food waste reduction options in the retail and foodservice sector in urban Sri Lanka. A multiple-stakeholder approach intends to assess driving and hindering factors for implementing strategies to reduce food waste. The research area, relevant stakeholder groups and food waste reduction approaches are introduced. The food waste mitigation hierarchy serves as a foundation of the conceptual framework of this thesis.

Semi-structured interviews with food entity operators and potential facilitators for food waste reduction, such as livestock farmers and food rescue initiatives, as well as authorities, are used to collect data. Matchmaking of research participants in the form of one group discussion supplements the data collection.

The centre of the study is the presentation of the findings. It is affirmed by this research that food waste is a multifaceted challenge, which affects most selected food entities in urban Sri Lanka. Whether reduction options and strategies are feasible is determined by the unique settings of the food entity, the attitude and awareness of operators and external factors. Various preventative measures are in place and positive attitudes towards food waste reduction overweight negative attitudes of food entity operators. Including external influences and the settings of food entities, the assessed barriers are outbalancing the driving determinants for implementing food waste reduction strategies. In the perspective of food entity operators, the influence of consumer is a central barrier to prevent food waste. Corporate policies hinder reuse and redistribution of occurring surplus food. Two local food rescue initiatives identified in this study, lack

capacities to meet requirements and expectations voiced by most hoteliers. The matchmaking of one hotel and one initiative revealed the requirement of assessing the quantity and type of food to be redistributed before the next step can be taken.

Food waste from larger food entities is collected by livestock farmers and recovered as swine feed. The perceived unsatisfactory service of the municipality service stands in relation with interest in alternative recycling options. Interviewed authorities focus on enhancing the solid waste management situation or ensuring hygienic conditions in food entities. Food waste prevention measures are not considered in the Sri Lankan legislation.

It is concluded that further research is required to assess the food waste reduction potential in urban Sri Lanka. The explorative study can be seen as another step on the food waste challenge pathway.

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