

## Driving Household Behavior Change for Food Waste Reduction in Bandung, Indonesia

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### Abstract:

Bandung City, one of the central business and tourism hubs in Indonesia, is facing a serious food waste problem, which led the government to declare a waste emergency and stop sending daily waste to the landfill. The city generates around 1,594 tonnes of waste daily, of which 44 - 45% is food waste<sup>2</sup>, with households being one of the main contributors<sup>3</sup>.

To address this issue, the government has introduced various initiatives, including the establishment of “waste-free” zones, campaigns to encourage waste sorting, maggot bioconversion, and household-scale composting. However, a critical gap remains: no behavioral interventions have been implemented to support food waste reduction in the city.

This study aims to test an incentive-based model to shift household behavior in reducing food waste. Two types of incentives were implemented in Nyengseret Sub-district: economic and social incentives. Additionally, nudges were introduced to encourage positive decision-making in reducing food waste. The results show that both economic and social incentives effectively increase household waste sorting and reduce food waste. These approaches reduced household food waste by 32% and encouraged 51.8% of households to sort and reduce food waste within 8 weeks. However, structural challenges still limit the overall effectiveness of these interventions.