Environmental Engineering and Management Journal

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu

"Gheorghe Asachi" Technical University of Iasi, Romania

EXPLORING HOUSEHOLD FOOD WASTE THROUGH THE LENS OF ENVIRONMENTAL CONCERN: EVIDENCE FROM URBAN CHINA

Shujun Cheng[1], Yue He[1], Yanjun Ren[1,2], Minjuan Zhao[1,3*]

[1]College of Economics and Management, Northwest A&F University, Yangling, Shaanxi 712100, China
[2]Department of Agricultural Markets, Leibniz Institute of Agricultural Development in Transition Economies (IAMO), Theodor-Lieser-Str. 2, 06120 Halle (Saale), Germany
[3]Xi'an University of Finance and Economics, Xi'an, Shaanxi 710100, China)

Abstract

As food waste escalates globally, reducing waste and ensuring food security have become critical priorities. However, research on consumer-stage food waste remains in its infancy, and many questions remain unanswered especially in transition economies. Using data from an online survey (*N*=4221) in China, this study examines the scale, composition, and causes of household food waste, and further investigating the influence of environmental concern on waste behavior and its heterogeneity. The findings reveal that the annual per capita food waste in Chinese household's averages 17.60 kg, with staple foods, vegetables, and fruits being the most frequently discarded items, and the primary causes of waste are food spoilage and expiration. Environmental concern significantly reduces household food waste, though its effects vary across household size and demographic characteristics of family members. These insights enhance our understanding of food waste patterns in transition economies and offer policymakers new strategies to mitigate waste.

Key words: household food waste, environmental concern, consumer behavior, food security, propensity score matching

Received: May, 2025; Revised final: September, 2025; Accepted: October, 2025

* Author to whom all correspondence should be addressed: e-mail: zhaomj@nwafu.edu.cn