Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2020-55
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Project Title:	Unlocking the paradox of dumping black gold – A conjoint analysis of yard waste management preferences, strategies and facility siting in Hong Kong
Principal Investigator (PI):	Dr Law Man Yee Caroline, Faculty of Design and Environment, Technological and Higher Education Institute of Hong Kong, Vocational Training Council
Total Approved Grant:	\$678,888
Duration:	01/06/2021 to 31/08/2023
Project Status/Remarks:	Completed
Project Scope:	The devastation of typhoons in recent years had exposed the inadequacy of urban yard waste management approach and unpreparedness of the Hong Kong Government to deal with the drastic increase of yard waste. While there is a widespread concern among citizens that Hong Kong needs a comprehensive review on yard waste policy, there has been no attempt either from the government or academia to initiate studies to find the best management model for Hong Kong. The current pre-assumption by the Government is that majority of citizens will object to the installation of yard waste collection and treatment facilities in their neighbourhood, however, it was rejected by the PI's pilot research. This project aims to test the above pre-assumption, and it will try to describe the preferences of yard waste facilities siting by breaking them down with different options of hierarchy and network. Before investing in yard waste collection and treatment facilities, it is wise to understand the potential market and preference of potential consumers to use and reuse yard waste products and by-products. Thus, this study will explore the essential aspects which need to be answered and will help to formulate a suitable management and policy framework for sustainable utilisation of yard waste.
Summary of the Findings/Outcomes:	This project "Unlocking the paradox of dumping black gold a conjoint analysis of yard waste management preferences, strategies and facility siting in Hong Kong" consisted research investigation in four phases, with in-depth interviews with stakeholders, and then multiple surveys with stakeholders and public to reveal the preferences of yard waste facilities siting by breaking them down with different options of hierarchy and collection network, and their perceived barriers towards efficient and robust yard waste management scenario. To better plan for circular economy, it further investigated the market preference of consumers to use and reuse yard waste products (i.e. compost, wood materials, wood chips, biochar) and attributes and preferences of treatment facilities. Major findings and recommendations: (1) This study recommends the classification of yard waste into two major categories: wood waste (e.g., tree trunks, branches) and green waste (e.g., leaves, grass clippings, hedges, small branches) for the sake of defining

(2) A public online questionnaire survey shows that citizens tend to support
"Decentralized mode: small-scale yard waste treatment facilities with short
collection distances", indicating that citizens do NOT have a "not in my
backyard" view to yard waste facilities.
(3) Wood waste by government: More (around 10) temporary or permanent
processing centers can be established in mid-range operated by
government.
(4) Green waste by producers: The government should encourage yard
so as to realize "on-site composting" if space is adequate.
(5) Relevant contractual arrangements, guidelines, regulations and law
should be gradually rolled out in phrases.
(6) Develop a yard waste management blueprint and set short, medium and
long-term goals
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