# Survey towards tourism waste reduction: tourists' awareness, behavior and discharge status

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#### RESEARCH BACKGROUND AND OBJECTIVE

The accelerated development of tourism industry is bringing impacts to Kyoto City on various aspects, with waste management problems being no exception. Nevertheless, there is no systematic information on tourism waste's current situation in Kyoto City. Therefore, this study aims to unveil the current situation of tourism waste in Kyoto and seek for effective short-term countermeasures for tourism waste.

#### **METHODOLOGY**

From the exploration of current situation of tourism waste to countermeasure selection, four surveys were conducted in this research. Firstly, tourism waste 2R schemes adopted in Kyoto were summarized through interviews with various stakeholders (2018, N=6). Effectiveness of these current efforts was evaluated by foreign tourists through a questionnaire (2018, N=126). As a result, the current strategies are claimed to be ineffective; therefore, this research targeted to imply effective 2R strategies for Kyoto City. Specifically, tourism waste composition survey was conducted (November 2018,6 regions, 93kg) to unveil the waste categories requires reduction, while a second questionnaire for tourists was conducted on their preferences for 2R countermeasures (December 2019, N=404).

# RESULT AND DISCUSSION

As a result, current countermeasures to tourism waste in Kyoto City summarized in survey one is evaluated as ineffective in survey 2. Survey 2 also unveiled tourists' strong intention on plastic waste reduction. Survey 3 demonstrated that plastic waste is crucial for tourism waste 2R management. Survey 4 illustrated there is high potential for "Kyoto (Japanese) style cooperative tourism on 2R behaviors". To achieve this goal, Kyoto City is expected to encourage tourists more directly and strongly on their 2R behaviors while supporting business through soft incentives. Businesses need to correctly grasp tourists' cooperation willingness and practice 2R efforts accordingly. Specific work focuses are to improve waste separation rate and to reduce plastic waste. Effective strategies selected by tourists including financial incentives, consciousness campaign etc. should be adopted.

### POTENTIALS FOR FUTURE RESEARCH

When exploring the current situation of Kyoto City, this research only interviewed the municipality, accommodation sectors and an NPO. Therefore, further investigation on efforts of other stakeholders including retailers and citizen is also required. Moreover, the inconsistency in amount of PET bottle and plastic bag in the two questionnaires suggests more accurate calculation on tourism waste. In the policy recommendation section, this research only focused on reduction schemes on plastics. Nevertheless, paper and raw garbage also requires 2R countermeasure due to the large amount.