

CHARACTERIZING BURIED WASTE COMPOSITION AT CONSTRUCTION AND DEMOLITION WASTE (CDW) DISPOSAL SITE IN VIETNAM: A CASE STUDY IN THANH TRI LANDFILL IN HANOI

*Tselmeg Aldarjav¹, Akira Kato¹, Akihiro Matsuno¹, Ken Kawamoto^{1,2}

1. Graduate School of Science and Engineering, Saitama University, Japan , 2. International Institute for Resilient Society, Saitama University, Japan

In recent years building and construction work has been growing rapidly in Vietnam, as construction sector expanded simultaneously the waste generated have increased as well. Due to increasing cost and handling availability of CDW disposal the landfilling approach is the most common and cost-efficient way of disposal in developing countries, including Vietnam. On the other hand, due to lack of technical and management abilities, it is very difficult to collect the data on amount and composition of CDW dumped to the landfilling site. The data on amount and composition of dumped CDW is necessary to evaluate the remaining lifetime of present CDW landfills and to examine the possible recycling strategy and method of CDW fills in future. Besides, the waste composition data contributes to classify the type of CDW landfills. The data on the ratio of each amount is currently not available. In this study, a field survey including pit sampling of buried waste, size grading, weighting of graded fractions, and categorization of waste has been done at Thanh Tri landfill site located on the south-eastern side of Hanoi, Vietnam. The final goals of study are 1) to develop a technical manual to investigate buried CDW at disposal sites, and 2) to characterize waste composition, physical and chemical characteristics of dumped waste in Vietnam. The overall procedure of the manual includes 5 parts: 1. Preliminary survey work, 2. Design of CDW composition survey, 3. Set-up of CDW composition survey, 4. Excursion of CDW composition survey, and 5. data analysis. The proposed manual enables not only to measure the waste composition but also to characterize particle size distribution of buried waste.

Keywords: Construction and Demolition Waste , Waste composition, Landfill, Survey, Manual, Vietnam