CONSTRUCTION & DEMOLITION WASTE MANAGEMENT PRACTICES OF BUILDING PROJECTS IN SRI LANKA

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The Dissertation was submitted to the Department of Management of Technology of the University of Moratuwa in partial fulfillment of the requirement for the degree of Master of Business Administration

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2009

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Abstract

Sri Lanka is a developing country in the world and the construction industry contributes average 7% to the GDP. This contribution factor expected to be higher in future years due to government concentration on expedite development activities in all areas after the war. Mega development projects such as construction of ports, airports, highways, bridges, power plants, high rise buildings etc have been already started in Sri Lanka and more projects are to be expected in future. Construction and demolition (C&D) waste from construction projects are inevitable but waste can not be illegally disposed. This prevailing illegal disposal methods of C&D waste in Sri Lanka was urged me to select the study area because illegal dispose of waste leads to create financial, social and environmental problems.

Relevant authorities have little focus on C&D waste management at present but there should be a proper management system to implement in the future to the expedite development programs forecast in the country.

Most of the developed countries have implemented proper management systems for C&D waste but it is not possible to adopt the same in Sri Lanka as it is. But some of them can be implemented with some modifications. This research was focused to identify the most common and high volume waste items generated in building construction projects in Sri Lanka, causes of waste and good waste management practices in developed countries and Sri Lanka. As per the Central Bank reports and from other sources, it was very clear that, construction volume is comparatively high in Colombo area and hence waste generation also to be high. Hence several construction projects in Colombo were selected for data collection in this study. Due to absence of proper rules and regulations for C&D waste management tends to ignore this problem by the site-personnel. This research will help to find some guidelines for the relevant authorities to develop rules and regulations for C.&D waste management (National Policy). Only few literatures available in Sri Lankan context for C&D waste management but
more could find in developed countries. One of main objective of the research is to identify C&D waste management practices of the other countries which are most applicable to Sri Lanka and hence find the best practice for the projects.

Reasons for C&D waste generation were identified and each reason was analyzed critically to reduce waste generation which is the first step of waste management. Most common and high volume waste items were identified and each item separately discussed to find the ways to mitigate waste generation. Some of them could easily be implemented in projects but some are difficult. Our dedication is very important to launch a National C&D waste minimization program throughout the country by rewarding them which can save more money and resources.

Reuse and recycle of C&D waste are the secondary methods in C&D waste management which is not much focused in this research. But it is recommended to carry out further research on waste recycle possibilities and find the market for by-products. In this case, government intervene is very important because high initial cost incurred to put up a recycle plant. It is necessary to develop a National policy for C&D waste management in near future. If not C&D waste also become a national problem parallel to solid waste.