



## Analyzing the potential for Environmental Management Systems (EMS) implementation in higher educational institutions; Case study on Rajarata University of Sri Lanka

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### Abstract

EMS (Environmental Management System) with international standard ISO 14001:2004 is a relatively recent tool used by in organizations for acting on environmental management. The standard can be used by any university to organize activities for managing environmental issues. The objective of this study is to analyze potential for establishing EMS in Rajarata university of Sri Lanka. Data for this research were collected through a structured online questionnaire and undergone quantitative analysis. Initial environmental review identified five key environmental aspects, as waste disposal, water pollution, energy, resources consumption, and landscaping. The total quantity of waste disposed by the university is 662.7 Kg per day. Water footprint of the residents in boys' hostel is 85ℓ/per head/day and residents in girl's hostel is 67ℓ. The electricity usage consists of lighting (29%), water pumping and use of air conditioning (33%). The electricity share of student hostels is 60%. Use of daylight preferred by 89%. Carbon footprint of the Faculty of Technology shows the highest value the Faculty of Agriculture being the second. Further, this study attempted to formulate an environmental policy too. The analysis show that the motivation factors for implementing ISO 14001 by the universities in obtaining by Garrett for converting. It is observed that "*improving the environmental performance inside the university*" was ranked first in the purpose of establishing EMS. Relative Importance Index shows that "*training on environment management*" is identified as the most essential factor followed by the "commitment of the top management". Rajarata University demonstrated a higher potential for establishing EMS for making a major contribution to sustainable development.

**Keywords;** EMS, Rajarata University, Carbon foot print analysis, environmental aspects, Environmental policy

