

Solid Waste Management Process and Related Issues in Halls of Residence in University of Peradeniya

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The University of Peradeniya is the most prestigious, top-ranked, and the first and largest residential university of Sri Lanka, with twenty-one (21) permanent halls of residence. With the abundant beauty of Mother Nature, the university has become one of the richest universities with lush green landscapes. However, malpractices related to Solid Waste Management (SWM), among other things, pose a major threat to this landscape. The study was aimed at proposing an efficient SWM system for residential halls by examining the existing SWM process and its related issues. Data were collected from field research which involved a questionnaire survey, stakeholder discussion circle, stakeholder interviews, and observation about the key stages of the SWM process. A high proportion of the data was analysed by using quantitative analysis with the support of data analysis tools such as MS Excel and ArcGIS. The research has generated statistics by considering the number of residents with per person waste generation per day (Student; 90g food, 35g polythene, 25g paper, 10g other), per canteen waste generation rate per day (E.g. Marrs Hall; 4500g food, 400g polythene, 400g paper, 750g other), temporal changes in waste generation rate throughout the year (examination, vacation, hall leaving periods, etc.). The appropriate separation of waste has been determined by the gender and the faculty of the residents. The waste collection is being done at different levels in halls, namely, Room, Bin, and Central Point. Yet, these collection stations are always disturbed by monkeys and dogs due to the structural failures of the stations. The university health administration is responsible for the waste transfer to the final disposal. According to the stakeholder interviews, the inability to follow a proper waste collection timetable, the distance of the halls from the SWM centre, and the mixing of separated waste during transfer in the waste truck have created problems. Hall management has requested an incinerator regarding the critical issue of disposal of sanitary pads and plastics. Also, relocating the disposal station away from the sensitive area of right bank of river Mahaweli is essential.

Keywords: SWM process, SWM issues, Students' residence, University of Peradeniya