

Exploring the Awareness of Waste Disposal and Suggesting Future Suggestions for managing waste: A Case Study in the Faculty of Agriculture, University of Ruhuna

S.S.M.Peramunagama^{1#}, P.C.Sandarenu², G.C.Samaraweera²

¹²³ *Department of Economics and Extension, Faculty of Agriculture, University of Ruhuna*
swarnamalitha@gmail.com

Abstract- Wastes are categorized into several types such as commercial waste, solid waste, construction waste and medical waste. Waste management is currently one of the most important aspects in each society that should be paid attention. In traditional concept waste has no value and is unavoidable. Growing population and rapid urbanization in each country, increases solid waste products. Basically, generated solid waste is related to the population's lifestyle and the economic situation in which the people are engaged. This research aims to study the present waste disposal methods and current program about the waste management in the Faculty of Agriculture, University of Ruhuna, Sri Lanka. The major objectives of the study were to find out the relationship between gender and area of residence with the awareness of three waste disposal methods; namely reuse, recycle and reduce. As the waste problem is a critical problem in the faculty at present, finding solutions is needed for the development of a sustainable waste management system in the faculty. All final year students (143) in the Faculty of Agriculture, University of Ruhuna were interviewed using a pre-tested questionnaire. To analyse the collected data descriptive and correlation co-efficient analyses were used. According to the data, the highest percentage (40%) of respondents were in 25 yearage group. From the participants 67% of respondents were female and 33% were male. Out of the female population 87% of them were aware of three waste disposal methods and the awareness of the male population was 67%. Apart for the present waste disposal methods in the Faculty, students preferred to collect in one place or basket, burn and land filling. Moreover, they suggested waste separation, handing over suitable waste to collecting points, introducing a reuse system to the faculty and cattle waste for bio gas production. According to the correlation coefficient analysis, results revealed that, there is a strong, high marked association (Cramer's V 0.787) between area of residence and the awareness of three waste disposal methods, but there is no significant association between gender and awareness of waste disposal methods.

Keywords: *commercial waste, construction waste, medical waste and solid waste, waste management*

Introduction

The waste problem is one of the top priority issues for most of the local authorities because they are responsible for executing waste management. Garbage collection and disposal has become an essential service in the country. So then, standards should have been improved in waste management in the country. During the recent years, a new concept regarding the construction management waste has been proposed under the name of “3R” concept, which relates to three main concepts of waste management namely reuse, recycle and reduce. Reducing means choosing and utilizing factors to decrease the produced waste value. Recycling means using waste as a resource. Reusing involves using the waste that still has useable situation. Reduce is the most important factors compared to Reuse and Recycle for minimizing the waste specially for polythene and plastic disposing. Since the encouragement to response to sustainable development, traditional waste management system has changed to a new waste management system (Shan and Tam, 2002). Therefore, the present study based on to find the current waste disposal methods and familiarizes proper disposal method conducting a survey in the Faculty of Agriculture, University of Ruhuna. Generally, University is a place of aggregate population. Around 1000 population lives at the faculty. Therefore, huge amount of waste dispose occur within one day due to concentrated population. As well as other waste such as laboratory waste, chemical waste, e-waste, agricultural waste, animal byproducts are collected within a day.

Methodology

This study aims at assessing waste disposal methods in Faculty of Agriculture, University of Ruhuna with the ultimate aim of introducing a sustainable waste disposal and management system in the university premises in general. Only students were considered for this survey representing the majority of the population. Therefore, all final year students (Agri-Business and Agri-Resource management) were interviewed using a pretested questionnaire. The questionnaire contained about present waste disposal methods for each category of waste (Plastic, polythene, e-waste, wood etc.) and future suggestions. To analyse the collected data simple statistical methods were used. Moreover, data were analysed using descriptive analytical tools.

Results and Discussion

According to the results, Out of 143 participants, the highest percentages of respondents were in 25 age group. It was about 40% of students in Faculty. From the participant 67% of respondents were female and other rest (33%) were male. Out of the female population about 87% of them were aware of three waste disposal methods (Reduce, Reuse and Recycle) and awareness of male were 67%. By way of present waste disposal methods in Faculty, students were referred to collect in one place or basket, burn and land filling but they asked to proper waste management system within the faculty. As the best method of polythene and plastic disposal, 60% of students mentioned that reduce the usage polythene or plastic products and further they asked to adapt alternative products. To study the relationship between gender and area of resident with the awareness of three waste disposal methods, correlation co-efficient analysis was used. It is clear to that there is a strong, high marked association (Cramer's V 0.787) between area of resident and the awareness of three waste disposal methods (These relationships significant at the level of 0.05). All the respondents in different district are aware with waste disposal method except Kandy, Mulativu and Hambanthota but student in Vauniya who didn't have an awareness. It is interesting to note that gender with waste disposal methods are not significantly related.

Conclusion

Study reveals that majority of students were aware of the 3R system. According to the correlation coefficient analysis, results revealed that, there is a strong, high marked association between area of resident and the awareness of three waste disposal methods but there is no significant association between gender and awareness of waste disposal methods. In pursue of to the students' point of view, study recommends following recommendations in order to make a proper waste management system within the faculty. Cattle waste use for bio gas production, paper and wood can sell and it earn income, introduce proper waste separation method and composting unit should be improved to recycle and reuse.

References

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