

A Study on Awareness on Domestic Solid Waste Management in Madukkarai Town Panchayat



Social Work

KEYWORDS : socio-economic status, waste disposal, plastic bags, selling of waste

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ABSTRACT

Accumulation of solid waste poses health issues and environmental degradation is the result of poor domestic solid waste management. Proper handling, segregation, disposal and recycling of solid waste leads to better health and hygiene. The present study analyze the awareness level of the respondents on domestic solid waste management in Madukkarai town panchayat, Coimbatore. Socio-economic status was kept as a determining factor in knowing the awareness. Disproportionate random sampling was used in selection of respondents. Self-prepared questionnaire along with O.P. Aggarwal et al (2005) socio-economic scale was used and interview was conducted. The study revealed socio-economic status has no relationship with proper domestic waste disposal whereas it has a positive relationship in generating revenue from selling the wastes. The study also revealed that acceptance of banning plastic bags in Madukkarai town panchayat increased with the level of education and education plays a vital role in selling of waste. Moreover gender also has no role in disposal of waste.

INTRODUCTION

The logical starting point for the proper management of solid waste is to reduce the amounts of waste that must be managed, either informally managed within the generator's site or formally (externally) managed by another entity once the waste is discarded by the generator (UNEP, 2005). Millennium Development Goal 7 'Ensure Environmental Sustainability' urges for clean and green environment.

Chapter 21 of Agenda 21 (Environmentally sound Management of Solid Wastes and sewage-related issues) emphasized that reducing wastes and maximizing environmentally sound waste reuse and recycling should be the first steps in waste management. This concept was introduced by Agenda 21 and illustrated by the waste hierarchy, which is a stepwise approach to waste management. The general principle of the waste hierarchy consists of the following steps, in order of environmental priority

- Minimizing waste
- Maximizing environmentally sound waste reuse and recycling
- Promoting environmentally-sound waste disposal and treatment
- Extending waste service coverage.

Chung and Lo (2004) observed that "there is a real need to measure and study waste management or other environmental behaviour in developing societies in its own right so that unfamiliar relations and important factors that prevail will not be overlooked." Devi and Satyanarayanan (2001) said the yearly average increase in solid waste in Indian cities is estimated almost 5% (as cited in Aggarwal et al, 2005).

This study analyze the awareness level of the residence of Madukkarai town panchayat in Coimbatore district, Tamil Nadu with respect to domestic solid waste management.

LITERATURE REVIEW

Hunchaisri (2012) in his study found out that participation in community waste management increased. After training the participants showed higher participation (Mean: 4.42 than before training (Mean: 3.48) at significant level 0.05. He attributed the increase to Participatory Action Research.

Makmattayan (2003) said that educational level as an important instrument for developing knowledge, opinion, value and skill

which could affect people opinion and a vision because educational level affected changing attitude and practices.

Pacione (2005) asserted that the main problems facing developing country cities with regard to waste management are related to the collection of waste from the city environments, with between one-third and one-half of all the waste generated in the cities remaining uncollected.

Research Methodology

This study was descriptive in nature. Disproportionate stratified random sampling was used to select the respondents from Madukkarai town panchayat (n=180) belonging to eighteen wards. Self-prepared questionnaire was used to collect the data. O.P. Aggarwal et al (2005) new socio-economic scale was used to get the socio-economic status of the respondents. Interview was conducted with the respondents to collect the data. The respondents belonged to the age group of 18-60 years.

Statistical Analysis

SPSS version 20.0 was used to analyse the data statistically.

Table 1

Socio-economic Status of Respondents

Socio-economic Status	Frequency	Percent
Upper High	1	0.6
High	4	2.2
Upper Middle	75	41.7
Lower Middle	96	53.3
Poor	4	2.2
Total	180	100.0

THE FINDINGS OF THE STUDY ARE AS BELOW

50.6% of the respondents are female and 49.4% of the respondents are male

71% people corresponds to OBC and 22% of them belong to Schedule Caste. Coimbatore predominantly being a Backward Class dominated area most of the respondents belonged to OBC category

44.4% of the respondents are diploma holders, One –fourth of the respondents have studied below tenth and 13.9% have completed graduation

90.56% (out of 180 respondents) identified food waste as the bio-degradable waste but 7.78% of them told Plastic waste as bio-degradable waste and 1.67% of the respondents told glass will degrade naturally.

75% of the respondents have dust bins at home

58% of the respondents said all kind of domestic wastes are generated in their home and 19% of the respondents said plastic wastes are generated.

Higher the Socio economic score of the participants lesser is the selling of waste. There is a significant negative relationship between Socio economic score and selling of the waste, $r = -.265$, $p = .00$ [significance level $\alpha = .01$, 2-tailed]

There is no significant difference between male ($M = 89.36$, $SE = .047$) and female ($M = 91$, $SE = 0.086$) in disposal of waste, $t(178) = -1.747$, $p > 0.05$

There is a significant association between education level and selling of waste $\chi^2(7) = 13.752$, $p < 0.05$

There is a significant association between educational level and ban of plastic in Madukkarai town panchayat $\chi^2(7) = 242.667$, $p < 0.05$

There is no significant association between socio-economic score and paying money for waste disposal $\chi^2(4) = 6.328$, $p > 0.05$

There is no significant association between socio-economic score and keeping all type waste in same bin $\chi^2(4) = 4.052$, $p > 0.05$

One - way ANOVA is performed, There is a significant difference between Socio economic score and generating revenue from waste, $F(4, 175) = 6.891$, $P < 0.5$

One - way ANOVA is performed, There is no significant difference between Socio economic score and proper disposal of waste, $F(4, 175) = 0.545$, $P > 0.5$

Conclusion

The study revealed socio-economic status has no relationship with proper domestic waste disposal whereas it has a positive relationship in generating revenue from selling the wastes. The study also revealed that acceptance of banning plastic bags in Madukkarai town panchayat increased with the level of education and education plays a vital role in selling of waste. Moreover gender also has no role in disposal of waste. On a whole this study showed a mixed awareness level over domestic solid waste management by the respondents.

REFERENCE

- [1] Agarwal, A., Singhmar, A., Kulshrestha, M., and Mittal, A.K. (2005); Municipal solid waste recycling and associated markets in Delhi, India. Resources, Conservation and Recycling 44, 73– 90. | [2] Chung, S.S. and Lo, C. 2004. "Waste management in Guangdong Cities: The waste management literacy and waste reduction preferences of domestic waste generators," Environmental Management, Vol. 33, No. 5, 692-711. | [3] Hunchaisri, Surasak. 2012. The community Participatory in Solid Waste Management in Khongchai Pattana Municipality Khongchai District Kalasin Province, Thailand. Medwell Journals. The Social Sciences 7 (2): 303-307 | [4] O.P. Aggarwal et al. 2005. A New Instrument (Scale) for Measuring the Socioeconomic Status of a Family: Preliminary Study. Indian Journal of Community Medicine Vol. 30, No. 4, 111-114 | [5] Pacione, M. (2005). Urban Geography. A Global Perspective. 2nd Edition. London and New York. Routledge, Taylor & Francis Group. | [6] United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992 retrieved from <https://sustainabledevelopment.un.org/milestones/unced/agenda21> on August 16, 2015 | [7] United Nations Environment Programme. 2005. Solid Waste Management. Kenya. United Nations Environment Programme. |