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AWARENESS OF SOLID WASTE MANAGEMENT AMONG UNDER GRADUATE STUDENTS IN HYDRABAD, KARNATAKA REGION

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ABSTRACT

Solid Waste is the disposed of or the undesirable material as junk or reject coming about because of mechanical, business, mining and farming operations, and from group exercises. This robust waste is arranged as Municipal Solid Waste, Construction and Demolition Waste, Hazardous Waste, surrendered vehicles, and so forth. The danger of unfortunate transfer of robust waste is one of the vital issues in numerous social orders .In these cutting edge days expanding populace and fast advancement are posturing difficulties on the "ecological maintainable quality". One of the real concerns is on viable administration of Municipal Solid Waste (MSW). This incorporates nonhazardous rubbish, refuse, and waste from homes, organizations, and mechanical offices. The paper is focused around essential and auxiliary information. The study secured 100 specimen size from under graduate understudies in Bellary and Koppal regions. For the study utilized self arranged polls apparatus to gather the information from the understudies.

KEY WORDS: Solid Waste, Management, Awareness, Under Graduate Students.

INTRODUCTION

Environmental issues are immovably settled in at the middle of the world stage in all circles of advancement action, particularly after the Second World War. Waste administration is the "era, anticipation, characterization, observing, treatment, taking care of, reuse and leftover mien of robust squanders". There are different sorts of robust waste including city (private, institutional, business), farming, and extraordinary (medicinal services, family unit unsafe squanders, sewage slime). The term generally identifies with materials delivered by human movement, and the methodology is for the most part attempted to decrease their impact on wellbeing nature's domain. Unfortunate transfer of strong waste is considered as a standout amongst the most paramount issues in numerous social orders. With the improvement of progress and globalization radical progressions have come in our life style and in every movement like training, diversion, voyaging, nourishing, attire and lodging, we are producing heaps of squanders. The advanced 'society of consumerism' has disturbed the waste issue. The issue of waste administration has emerged as of late in creating nations where there is little history of the execution of formal and casual group ecological instruction mindfulness program.

SOLID WASTE MANAGEMENT

We are conceived from the earth, we come back to the earth and we manage by the earth. Thus nature's domain in which we live is extremely critical and it straightforwardly influences our lives. As indicated by World Health Organization (WHO) the expression "robust waste is connected to undesirable and disposed of materials from houses, road sweepings, business and farming operations emerging out of mass exercises". Robust Waste is the term used to portray non fluid materials emerging from residential, exchange, business, agrarian and modern exercises and from open administrations. There are three sorts of robust waste:

1. Metropolitan robust waste comprises of family unit waste, development and obliteration garbage, sanitation deposit, and waste from roads.
2. Unsafe squanders (Industrial and doctor's facility squanders) May contain lethal substances. India creates around 7 million tons of perilous squanders consistently.
3. Hospital waste (Biomedical waste) Generated amid the judgment, treatment, or vaccination of individuals or creatures or in exploration exercises or in the generation or testing of biologicals.

Classification of Wastes according to their Effects on Human Health and the Environment:-

- Hazardous squanders: Substances hazardous to utilize economically, mechanically, agronomically, or financially and have any of the accompanying properties- ignitability, reactivity & poisonous quality.
- Non-perilous: Substances protected to utilize financially, modernly, horticulturally, or monetarily and don't have any of those properties specified previously. These substances normally make disposal problems.

Technologies in waste management:-

Traditionally the waste management industry has been slow to adopt new technologies such as RFID (Radio Frequency Identification) tags, GPS and integrated software

packages which enable better quality data to be collected without the use of estimation or manual data entry.

- Technologies like RFID tags are now being used to collect data on presentation rates for curb-side pick-ups.
- Integrated software packages are useful in aggregating this data for use in optimization of operations for waste collection operations.
- Rear vision cameras are commonly used for OH&S (Occupational Health & Safety) reasons and video recording devices are becoming more widely used, particularly concerning residential services.

International waste movement:-

While waste transport within a given country falls under national regulations, trans-boundary movement of waste is often subject to international treaties. A major concern to many countries in the world has been hazardous waste. The Basel Convention, ratified by 172 countries, deprecates movement of hazardous waste from developed to less developed countries. The provisions of the Basel convention have been integrated into the EU waste shipment regulation. Nuclear waste, although considered hazardous, does not fall under the jurisdiction of the Basel Convention.

SUSTAINABILITY

The administration of waste is a key segment in a business' capability to keeping up accreditation. Organizations are urged to enhance their ecological efficiencies every year by disposing of waste through asset recuperation rehearses, which are supportability related exercises. One approach to do this is by moving far from waste administration to asset recuperation practices like reusing materials, for example, glass, sustenance scraps, paper and cardboard, plastic containers and metal.

CHALLENGES IN DEVELOPING COUNTRIES

It is the bequest of each national to live in a contamination the earth, to get great air to inhale and to have safe water to drink. Waste administration in urban communities with creating economies and economies experiencing significant change experience depleted waste accumulation administrations, deficiently oversaw and uncontrolled dumpsites and the issues are compounding. Issues with administration additionally confuse the circumstances. Waste administration, in these nations and urban areas, is a continuous test and numerous battle because of feeble organizations, endless under-resourcing and fast urbanization. These difficulties alongside the absence of understanding of distinctive variables that help the progressive system of waste administration, influence the treatment of waste. With aggregate endeavors from the piece of government, instructive organizations and Ngos, fitting direction could be given in this disregarded zone of waste administration.

In India the biodegradable allotment which for the most part incorporates sustenance and yard waste rules the heft of MSW by making up more or less half of the aggregate MSW. A few certainties about Indian MSW:-

- Solid waste era in India is around 115,000 tons for every day with a yearly expand of around 5% (concurring CPCB, India)
- Research studies uncover that the for every capita era rate builds with the extent of the city and changes between

0.3 to 0.6 kg/day in the metropolitan ranges. The evaluated yearly build in for every capita waste amount is around 1.33% for every year.

- The Eleventh Five Year Plan of India has conceived a speculation of give or take Rs. 2,000 crores for Solid Waste Management (SWM).

OBJECTIVES OF THE STUDY

The study considered the following objectives such as,

1. To study the socio democratic profile of the respondents.
2. To analysis the awareness of solid waste management among under graduate students.
3. To find out the under graduate students' perception on solid waste management.
4. To understand the Government and Non Government Organizations interventions in solid waste management.
5. To identify the suggestions for create awareness about solid waste management among under graduate students.

REVIEW OF LITERATURE

Vivek et al , (2013) expressed as there is no lasting answer for ecological issues, just thing we can decrease and control waste era by legitimate mindfulness and practice. Legitimate administration of the waste produced is most essential in this matter. Waste administration is a science that addresses the logistics, natural effect, social obligation and expense of an associations' waste transfer. Robust Waste Management (SWM) has 3 essential parts in particular accumulation, transportation and transfer. their study uncovers the need of giving mass attention to the effect of waste transfer rehearses from the earliest starting point of school instruction. Submitted ecological instruction will instill a legitimate and fitting natural society in the understudies. As the study uncovered familiarity with e-waste transfer is needing there is a dire need to correct this hole in information and practice.

Ayodeji Ifegbesan (2009) Carried out a study and inspected the level of mindfulness, learning and practices of optional schools understudies with respect to waste administration. Few studies have caught on waste administration issues in Nigerian instructive establishments, especially the perspectives of understudies. Utilizing an organized, self-directed survey, 650 understudies were reviewed from six optional schools in two of the four instructive zones of Ogun State. Information gathered were subjected to rate, mean, standard deviation, t-test and chi-square measurable investigates. Discoveries uncovered that auxiliary school understudies from the examined zones were mindful of waste issues on their school mixes, yet had poor waste administration rehearses. The study demonstrated that inclination for waste administration practices contrast by sex, class and period of understudies. Noteworthy connections were seen between understudies' sex, age and class and their level of mindfulness, learning and practices of waste administration.

Rajesh R. Pai et al (2014) clarified as real concerns is on compelling administration of Municipal Solid Waste (MSW). This incorporates nonhazardous refuse, waste, and rubbish from homes, organizations, and mechanical offices. Waste contains damp squanders like nourishment, meat and vegetables; junk includes basically dry constituents, for example, glass, materials, paper, and plastic questions; and refuse incorporates cumbersome waste materials and protests that are not gathered routinely for

transfer, for example, tossed beddings, apparatuses, and bits of furniture. In this manner, waste ought to be followed and must be recouped however much as could be expected. Despite the fact that, there are distinctive strategies to counter this issue, the agreeability is a reason for concern. Having recognized this need, an endeavor has been had to study the effect of expanding populace on the measure of waste era through System Dynamics (SD) Modeling on the premise of which successful methodologies could be created for dealing with the same.

MATERIALS AND METHODS

The study has based on primary and secondary data. Primary data collected by 25 in each under graduates like BA,BSW,B.COM and B.Sc students in Bellary and Koppal districts. Secondary data collected from journals, articles, reports. We have used self prepared questionnaires based objectives of the study for collecting data from the students. It covered rural as well as urban areas.

FINDINGS OF THE STUDY

The following tables are indicating the findings of the study.

Table .1 Socio democratic profile of the Respondents

Variables	Category	Frequency	Percentage
Age	Below 19	14	14
	19-20	38	38
	21-22	36	36
	Above 23	11	11
Under Graduates	BA	25	25
	B.COM	25	25
	B.Sc	25	25
	BSW	25	25
Geographical area	Urban	40	40
	Semi Urban	36	36
	Rural	24	24
Sex	Male	68	68
	Female	32	32

Source :Primary Data (2014)

The above the table shows the socio-Democratic profile of the respondents of the study. 38 percentage of the respondents between the age group of 19-20 , 36 percentage belong the age group of 21-22, 14 percentage of the respondents below the 19 age group and 11 percentage of the respondents were above 23 age. In the table indicates that includes four Under Graduates such BA, B.COM, B.Sc and BSW and took 25 percentages from each Under Graduate in the study. 40 percentage of the respondents belongs to urban area, 36 percentage of the respondents belongs to semi urban and 24 percentage of the respondents were belongs to rural area. 68 percentage of the respondents were male and 32 percentage of respondents were female.

Table-02 Measures to combat the problem of solid waste management

Measures	Frequency	Percentage
Reduce	8	8
Reuse	22	22
Recycle	58	58
Others	12	12
Total	100	100

Source: Primary Data

The table indicates that Measures to combat the problem of solid waste management. 8 per cent of the respondents expressed that reducing the quantity of waste by each households as a method for combating the problem, while 22 percent expressed reusing as the proper methods of managing the solid waste, 58 percent of the respondents expressed that recycling can be used to manage situation in the city and 12 percent of respondents suggested to introduce any new method to manage the solid waste.

Table No-03:- Reasons for the Problem of Solid Waste

Reason	Frequency	Percentage
Poor management by municipality	63	63
Lack of awareness	18	18
Lack of rules	22	22
Lack of funds	10	10
Total	100	100

Source : Primary Data

The above table shows the reasons for problem of Solid Waste. This was reported by 63 per cent of the sample, 18 per cent of the respondents felt that the problem of solid waste management was due to lack of awareness among the public, 12 per cent of the respondent were of opinion that there was lack of rules. Only 10 per cent expressed that lack of funds with Government as the reason for the problem.

Table No-04: Interventions in Solid Waste Management

Organizations	Frequency	Percentage
Municipality	58	58
NGOs	21	24
Private Agencies	10	10
Other Agencies	11	11
Total		

Source : Primary Data

The above table indicates that Interventions in solid waste management. 58 percent of the respondents expressed that municipality is providing better service and 21 percent were of the opinion that NGO will provide better service,10 percent of respondents felt that the private contractors would provide better service and 11 percent felt that other agency can take up this task of providing better service to managing solid waste.

SUGGESTIONS

Suggestions are important to future research therefore some of the suggestions that emerged from the current study as listed below.

- ⇨ Education instates create more awareness activities among Under Graduate students by the field experts with using audio –video aides and conduct some other awareness activities.
- ⇨ The Government should take necessary steps to introduce the biosphere gasification technology to reduce the solid waste.
- ⇨ The government should promote private public participation in the field of solid waste manageme.

CONCLUSION

Solid waste management is an integral part of the urban environment, and planning of the urban infrastructure to ensure a safe and healthy human environment, while considering the promotion of sustainable economic growth. The other way is to conduct awareness programs for the people in the cities regarding the waste generation and its effects on human health and sustainability. Proper planning should be followed by industries. The Educational institutes should encourage for awareness activities such as street play, easy writing, speech competitions, workshops etc among the Under Graduate students.

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