



## BEST PRACTICES TO MAINTAIN HARMONY BETWEEN SELF, FAMILY AND SOCIETY

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### ABSTRACT

This paper comprises the household behavior of Eluru residents towards solid waste management. Solid waste management became essential to each individual and society. Waste management is one of the best practices to maintain harmony between self, family and society. The paper is the outcome of a primary survey of 432 households covering some parts of the town of Eluru. The daily per capita waste generation in Eluru is 0.29 kg and is lower in the core zone than in the outer and middle zones. This indicates that as there is more open space to throw the waste people usually generates more waste. Household size and income are the major determining factors for the total quantity of wastes generated in all the zones. About 80% of the households are willing to pay for better management of waste. This comes to about Rs. 72 per household per month.

### KEYWORDS :

#### 1. INTRODUCTION:

Solid Waste Management is the handling of discarded materials especially those produced by human activities. It involves the collection, transport, processing, recycling, reducing, reuse or disposal of waste materials. The term most commonly applies to a wide variety of materials including discarded food, leaves, newspapers, bottles, construction debris, and chemicals from a factory, candy wrappers, disposable diapers and radioactive materials. Some forms of waste management involves the elimination of undesirable waste products through land filling, incineration, recycling and composting which transform waste into useful products.

#### 2. METHODOLOGY:

##### 2.1 The survey methodology:

The Solid Waste Management Questionnaire Survey (SWMQS) that was employed for this project was adapted from the Project Coordinator. A total of 55 survey questionnaires were randomly administered among households of RR Pet and Pathebad areas of Eluru town. A group of students (10 each) conducted face-face interviews. Each student group was limited to interview a total of 10 households. One member of each household who was within the age bracket of 18-75 years was selected to be interviewed.

The questionnaire design consists of fifteen sections: Area of Jurisdiction, Details of Population, Survey details of the allotted area, Socio economic details of the respondents, General features regarding waste management, Perceptions and attitudes of respondents regarding waste, Awareness about consequences of improper waste disposal, Details regarding waste handling, family housing details, General details regarding waste materials, Storage of waste materials, Waste collection and transportation services, Waste Disposal, Problems due to improper management of waste, Suggestions for proper solid waste management.

The survey approach and process was designed to provide insightful information that would guide future Solid Waste Management Programme implementation in R.R.Pet and Pathebad. Methodological triangulation approach was used to ensure multiple sources of evidence necessary for validity and reliability. Hence four approaches were used in gathering information; secondary data was obtained from reviews of reports and documents, quantitative data was collected through structured Household questionnaires and also from observations while qualitative data was collected through student group discussions.

##### 2.2 Sampling methods and sample size:

Probability sampling technique was used to select a sample of 100 Households to be interviewed from two sampled areas (R R Pet, Pathebad). Simple random sampling was used to select an average of 50 Households.

##### 2.3 The instrumentation:

Primary data was collected through household questionnaires. The household questionnaire sought to obtain demographic data as well as the household knowledge, attitudes and practices related to solid waste management. A student group discussion enabled collection of qualitative data that was used for triangulation and generating deeper understanding of the community knowledge attitudes and practices on solid waste management.

##### 2.4 Data collection and analysis:

Primary data was collected by 10 students over a 3 days period (10 students collected data from 100 households all spread over the RR Pet and Pathebad areas). Secondary data was collected from various documents on Solid Waste Management.

The questionnaires were also field piloted by senior faculty members of our college to establish how long it would take to complete, if interviewees would understand the questions and if they would be willing to answer the questions. Results of the piloting informed the data collection planning and exercise.

#### 3. RESULTS AND DISCUSSION:

Among the 100 respondents, 1% of the respondents were between 18-25 years, 33% people were between 25-35 years, 32% respondents were between 36-50 years, 34% respondents were above 50 years of age. Here, 37% respondents are male and 63% respondents are female. The Age range and sex of the respondents shows the sex ratio of the respondents. shows that most of the respondents were female (63%) and a major portion (34%) of respondents above 50 years. 19% respondents are illiterate, 26% respondents are having elementary education, 22% of the respondents are SSC passed, 33% are having higher education. Above Rs.20,000/- income per month respondents are 27%, between Rs.10,000-20,000/- are 27% and less than Rs.10,000/- are 46%. We can hardly say that the educational status of most of the respondents is not satisfactory.

Therefore, majority of them are not aware enough about impacts of miss management and careless dumping of solid waste. Half of the respondents donot know properly about Solid Waste treatment. 26% of the respondents thinking that solid waste means sweeping the house and throwing waste away, 20% thinking that keeping

the house neat and clean. 54% thinking that solid waste means storing, transporting and disposing of waste hygienically.

The survey also sought to find out the main source waste produced by the household. Results indicated that households produce different types of waste. In a total 100 multiple responses on types of waste produced, Food scrapes and paper waste is the most common type of waste. As it was frequently mentioned in 70% of the cases. Other types of waste are plastics/rubber textiles being frequently mentioned in 34% and 25% of cases, respectively. It is very clear that RR Pet, Pathebad people felt that Major problem by Paper and Food scraps. Minor problem by textiles, wood etc. 6% of the people felt that Aluminium, wood, ferrous & metal, glass ceramic, cloth are creating no problem. 67% people are not aware about the consequences of improper waste disposal. Waste disposal. 84% of residents are waste disposed in waste dump, whereas 8% throw it in unoccupied land, none of them throw it in water bodies and only 8% of residents follow other methods for waste disposed.

50% of the houses disposed bins per week in one time, 26% of them disposed two times in a week, 16% are of disposed it in three times in a week and only 8% of the residents are disposed it in four times in a week. 35% of the people dumping the solid waste including plastics into the drainage nearby, whereas 65% of them are not. The percentage of people burning of solid waste at domestic level is 36% whereas 64% of them are do not burn the solid waste at domestic level. In this locality 40% of waste is transport from door to door to the dump site. Only 9% transported through communal collection. 48% of waste is transported through tricycle system; only 3% of waste is carried to the dump site through the other systems. Among the families of this area 28% of fathers, 61% of mothers, 1% children and only 10% paid workers transports their waste to the dump site. 24% of the residents dispose their waste on the road to farm. 33% of them on the road to dump site, only 1% of them are into river/stream/pond/gutter, 41% of the residents at the refuse dump and only 1% of them dispose their waste into the nearby bush and none of the families dispose it onto a weedy house plot nearby. In this locality we noticed that only one dump site is kept in few streets, two or more dump sites are located in most of the streets. 80% of the people using municipal services in waste collection and transportation of waste. 55% of the residents satisfied by the regular municipal garbage collection, 23% of the people highly satisfied by the municipal services, 18% of the people are not satisfied and only 4% of the people are not at all satisfied by the municipal services. 59% of the people are strongly willing to pay more if the services are improved, 30% of the people are not willing to pay more for municipal better services. We conducted survey on total waste generated (kgs) in Pathebad and RR Pet area. We observed the waste generated by 100 houses in a week. We noticed that Recyclable waste generated is as follows. By paper 122(kg), plastics 100.5(kg), metals 19.5(kg), glass 15(kg) and wood 14.5(kg). The total Recyclable waste generated in that area 271.5(kg). The Compostable waste generated by Kitchen waste is 247.5(kg) and Garden waste is 305(kg). Reusable waste generated by Textiles 1.75kg, leather 0.75(kg) and rubber 3(kg). The total waste generated in this area is 829.5(kg).

#### 4. SUMMARY:

The results reveal that many residents do not have complete knowledge of what constitute the environment. This means there is need to create awareness about environmental education to the people. The typical indigene of RR Pet and Pathebad areas in Eluru are generally residing clean people and this is why the respondents considered household garbage and sewage to be the major environmental issues for concern. Many of the residents complained that the dump sites were insufficient and was daily cleared by the sanitary workers but it was not satisfactory, they need twice a day waste would be cleared by the sanitary workers. A situation which has prompted them to resort to the burning of wastes. The burnt wastes gradually accumulate and usually lead to the blockage of drainages because the burning usually takes place

close to such drainages and also in rainy seasons roads would be completely immersed in water for several hours depending upon the severity of the rain fall. People unable to come out from their houses. These serves as breeding sites for mosquitoes, flies leading to dangerous communal diseases like viral, malaria, dengue etc. have been identified by the respondents. Since many respondents depend on municipal and bore water, they are facing highly risk of contamination. Main problem with roaming of pigs. Some of the residents near RR Pet were rearing pigs. The use of waste carts should be introduced in RR Pet and Pathebad. Casual workers should be employed to push such waste carts to collect household garbage from house to house. The households will have to pay a small token for such services. This survey has revealed that many respondents are willing to pay for such services or better municipal services.

The Local Government Authority has been blamed by many of the respondents for not solving the garbage problem. Many of the respondents believed that there was need for more frequent removal of garbage by the sanitary workers and that recycling laws and programs should be put in place by the Local Government. Many of the respondents were willing to participate in recycling and composting programs if they were given adequate orientation. Some residents are already involved in composting and recycling. This means that waste collection centres need to be erected by the Local Government specifically for the purpose of waste recycling and composting. The environmental health officers will also need to increase their efforts in public education on ways of reducing and reusing wastes and on what wastes should be brought to the recycling and composting centres.

There is a great need for the private sector such as commercial banks to collaborate with the Local Government in the solid waste management efforts. It is the corporate social responsibility of the private sector to partner with the Local Government in the smooth delivery of government functions. It is obvious that the environmental health department of the local government is handicapped in the areas of personnel, work vehicles and funding. All these need to be adequately provided for effective environmental health services to be delivered especially in solid waste management. Publicity of waste management practices through distributing of leaflets, posters and mass media support. All the parties' (i.e. government, households, service holders, students, day labor, businessperson, etc.) spontaneous participation and involvement should be ensured to manage and dispose solid wastes properly in order to maintain clean and healthy environment.

#### 5. CONCLUSION:

This survey project has being able to provide an indication of the current household solid waste management in Eluru by focusing on the residents surrounding RR Pet and Pathebad as a case study.

A large number of respondents suggest that, management of disposal facility should be increased to a satisfactory level and awareness must be developed among all classes of people so that the negative consequences of wastes can be reduced at a large extent. The residents are generally concerned about the environment but are not doing enough to reduce, recycle and reuse the household garbage they generate. It is clear from their responses that they are ready to help to solve the garbage problem in Eluru if the appropriate support from Eluru Municipal Corporation.

The environment requires protection in order to remain healthy for all inhabitants. To protect and bring about a healthy and sustainable environment requires the collective efforts of the public, the environmental health authorities and the private sector. Let us all remember these three most important words about 'waste':

**REDUCE, RECYCLE, REUSE.**

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