



Assessment of Socio Economic Condition and Role of Rag Pickers in Municipal Solid Waste Management in Allahabad City (U.P.) India

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ABSTRACT

Rag pickers play an important role in solid waste management but rag picking is one of the most neglected sectors. The major objective of the study has been to find out the existing socio – economic and health considerations of rag pickers in city of Allahabad. The study also focuses on the prevailing hierarchy in this sector. The survey highlights the issue of hierarchy and explains the reasons of its maintenance. In the work hierarchy denotes the ratio of the involvement of the three major members: male, female and children. The paper is an output of the primary survey conducted in the Allahabad city of U.P. The research is mainly based upon a detailed questionnaire. The survey sample was taken on the selected pocket area within city of Allahabad. With reference to the survey data the study further aims to fulfil the need and highlight the importance of rag pickers. The survey aims to bring forth the unseen part of the story on the front line.

Key words: Ragpickers, Municipal solid waste, Landfill sites, Dumping grounds, Recycling



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INTRODUCTION

Solid waste refers to any solid or semi-solid substances or object which is discarded or useless or unwanted resulting from human activities. It is extremely heterogeneous mass of waste, which may originate from household, commercial activities, industries and agricultural activities. Although the degradation of land resources and problems related to environment and human health, uncontrolled open dumping is going on in developing countries ISWA, UNEP (2002). Amount of municipal solid waste will increase significantly in the future because India is converting into an industrialized nation in near future Sharma S. and Shah K.W. (2005); Central Pollution Control Board (2004) and Shekdar A.V. (1992). The chief difficulty in arranging the public services in the urban areas is often the poor financial conditions of the municipal corporations Mor S. (2006); Siddiqui T.Z. (2006); Raje D.V. (2001); Ministry of Environment and Forests (2000) and Ahsan N. (1999). Municipal solid waste has many categories like food waste, rubbish, institutional waste, commercial waste, street sweeping waste, construction and industrial waste etc. Municipal solid waste contains recyclable wastes like paper, plastic, glass, metal etc. And toxic substances like paints, pesticides, medicines etc. and compostable organic waste like fruit, vegetable and food waste etc. Jha M.K. (2003); Reddy S. and Galab S. (2003) and Khan R.R. (1994). Many industrial countries have adopted the waste management hierarchy concept for municipal solid waste management which includes prevention, minimization, materials recovery, incineration and landfill Sakai S. (1996). A difficulty in planning a municipal solid waste management plan is that simultaneously tackling the conflicting objectives which cannot be dealt by economical qualifications only but the problem is categorized by an uncertainty of

the estimates of costs and environmental impacts so many researchers have proposed multi criteria decision approaches in MSW management Hokkanen J. and Salminen P. (1997); Karagiannidis A. and Moussiopoulus N. (1997); Chang N. and Wang S. F. (1997) and Chang N and Wang S.F. (1997). The term rag picker currently refers to the people who collect rags or recyclable materials that can be sold for money. Rag picking entails the sorting, collecting, and selling of these various waste materials that can be found at dumpsites, riverbanks, street corners, or in residential areas, and consist primary of plastics, bottles, cardboard, tin, aluminium, iron, brass and copper. Plastic tin and aluminium products are heavily sought after while paper goods rank low on the list. Rag pickers have recently become part of the growing population of urban poor. The average age of a rag picker is economically active population (age 5 years to 59 years). Literacy rates of rag pickers are very low, with majority of them illiterate. Rag pickers usually come from poor families involved in non-agricultural, low-paying occupations. Family size and structure does seem to directly influence, most of the people are involved because they have to fulfil the need of large family. The present survey also reveals that hierarchy is maintained. The survey provides details that most of the population comprises of children and women. The rag picker has a special role to play in the segregation of waste. They are the one of the focal points for the recycling of waste. They are the person who, in spite of all the dangers faces, goes on relentlessly picking through the garbage bin, looking for waste that can be useful to him. Hospital waste is often present in the waste which rag pickers sorted out Srikanth V. (1993). The risk created by this occupation is greater for children than for adults World Health Organization (1988). Researchers revealed

that the number of rag pickers is increasing in the Asian cities Furedy C. (1990). There is very less research work had been taken place investigating the health risks involved in this work on the rag pickers Gunn S.E. and Ostos Z. (1992); Kungnulskiti N. (1991); Nath K.J. (1991) and Parasuramalu B.G. (1993). They sells all the material picks to the whole sellers and retailers who in turn sell it to the industry that uses this waste matter as raw material. The main items of collection are plastics, paper, bottles, and cans. Rag pickers are well coordinated in their method of working. Among themselves, they have a good understanding for operating by area. Each group takes specific items from the bins. It has been observed that more women and children are getting involved in the business of rag picking. This is a matter of concern that, these children who should be spending their time in schools either studying or playing are instead put themselves at risk by handling waste. While picking through waste, the rag picker put himself at a great risk and is always prone to disease as the waste that he rummages through can be infected.

MATERIALS AND METHOD

Study Area: Allahabad is one of the most important districts of U.P. Allahabad is one of the biggest cities and largest educational and administrative hub of U.P.

Research design: Research was conducted by collecting primary data from rag pickers regarding their problems, lifestyle and family, earning, health consideration.

Data collection method: The data was collected using a detailed questionnaire (prepared in English, administered in Hindi by the researcher).

Sampling: Area sampling followed by judgmental sampling to decide the densely representative population was undertaken.

After deciding on the place, random sampling for rag pickers is done.

Sample size: The sample size for the survey is 100. Though no geographic segmentation is done as garbage collection is more or less evenly spread, based on the density of rag pickers and their accessibility areas, some areas were more approached than others.

RESULTS

1. Age distribution of rag pickers: About 22% of the rag pickers is comprised of children i.e. age group (0-10 year) which is one of the great matter of concern, 39% are of the age group of (10-20 year), 28% are of the age group of (20- 30 year) and rest 11% are of >30yrs of age.

2. Gender distribution of male and female: In the survey, it was found that higher ratio of male is involved in respect to lower ratio of female. The percentage of male is about 53% and that of female is 47%.

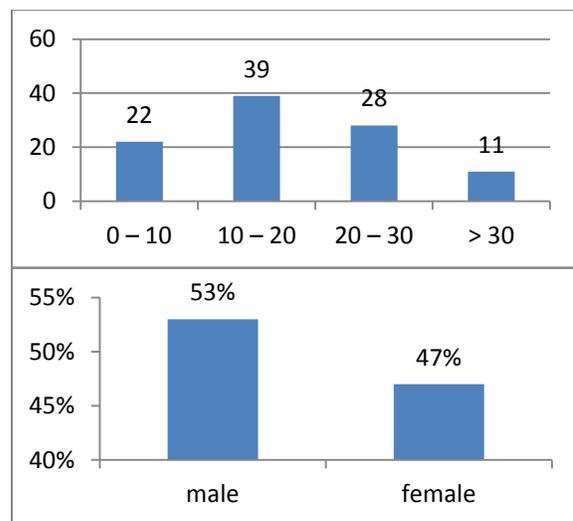


Fig.1 Percentage age distribution rag pickers

Fig.2 Percentage of male/female involved in rag picking

3. Size of the family: The detailed study of survey revealed that most of the rag pickers

have a large family. 62% of the rag pickers have more than 5 members in the family, 24% have five members in their family, 14% have 4 members in the family and 0% has 3 members in the family.

4. Educational status: Only 11% of rag pickers are educated (primary level) and rest 89% are uneducated. The major portion of educated class comprised mainly of the age group of (0-10 year).

5. Working period: Survey revealed that a large no of rag pickers undergoes long working hrs. 68% were found out for their trade of about 8 hrs. 21% were found outside for their job for more than 8hrs and only 11% was found out for 5hrs

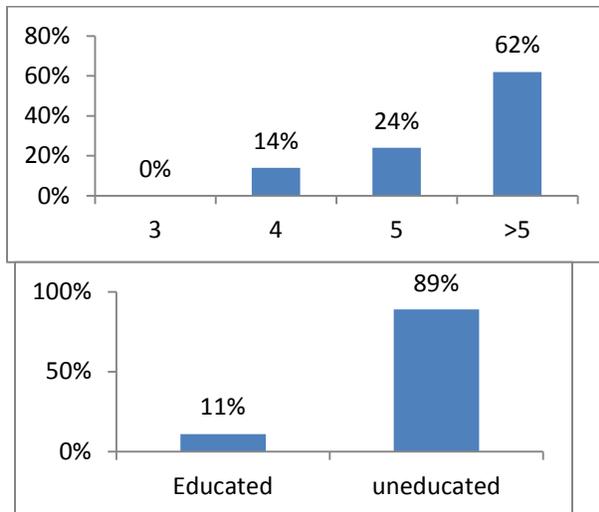


Fig.3 Percentage of individual having different family size

Fig.4 Percentage of educational status of rag pickers

6. Amount of waste collected: It was found in the survey that rag pickers collected a huge amount of waste in a single day to meet their needs. 32% individual collects 10- 15 kg. 20% were found to collect more than 15 kg. 36% individuals collect 5-10 kg. 12% collect 2-5 kg.

7. Type of waste collected: About 93% of rag pickers collect plastic, 82% gather paper, 56% of individual collect biomedical waste, 48% collect glass and rest 23% collect rubber.

8. Economic status: In the survey, it was found that a larger population earns very low income. About 53% of rag pickers earn less than Rs.50 per day. 38% of them make between Rs.50 – 100 daily and very small percentage i.e. 9% involve in this trade earn more than Rs.100 daily.

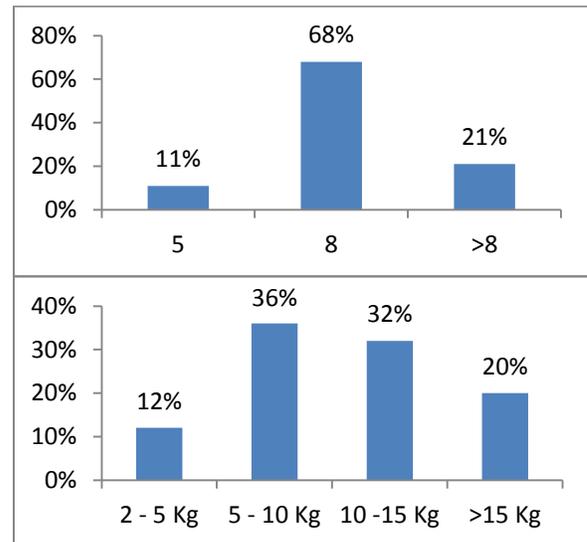


Fig.5 Percentage of working hours of individuals.

Fig.6 Percentage of amount of collected waste

9. Living condition of rag pickers: Major portion of the rag pickers lives in shanty and unhealthy areas. About 83% of individuals live in slum areas. 11% resides at places like platforms or market corridors. Only 6% of the rag pickers own a home. This facility is available only to those who are involved in this trade from a long time.

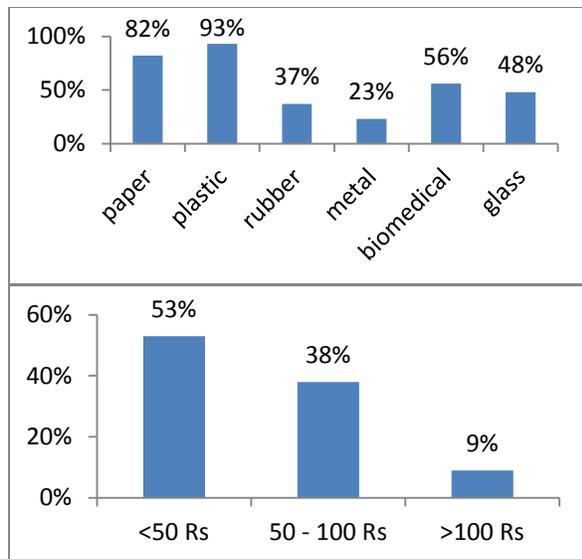


Fig.7 Percentage of individuals picks and type of waste

Fig.8 Percentage of individual earning in single day

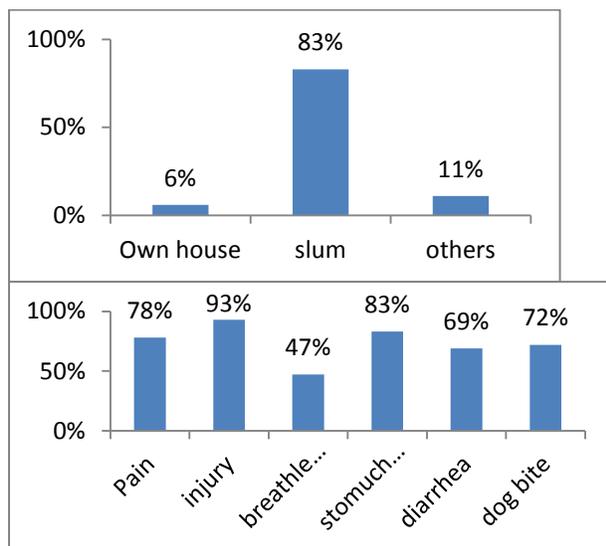


Fig.9 Percentage of accommodation facility

Fig.10 Percentage of general health related problem

10. General health condition: The general health condition of rag pickers was found not so satisfactory in the survey. About 93%

of rag pickers made complaint of injury while picking. 69% of them complained of diarrhoea, 47% complained of breathlessness and 78% of pain. A major new issue which has highlighted in the study is that rag pickers incurred ill health not only by pathogen or sharp or hazardous waste but also by the attack of animals feeding on the wasteland. About 72% of individual faced dog bite.

11. Public reaction: About 48% of rag pickers replied that public is supportive while 52% revealed that public avoids them. The negative answer was mostly given by children and teen agers. They confirmed that public has a wrong perception that these age group individuals are involved in anti-social activities such as mischief and robbery.

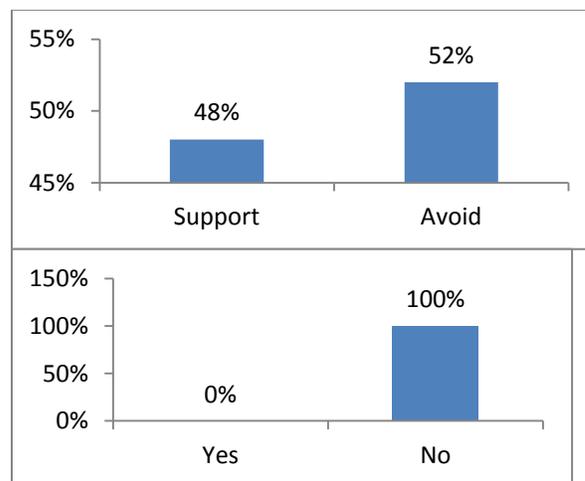


Fig.11 Percentage of support/avoid in public reaction

Fig.12 Percentage getting help from Government or NGO's

12. Help from Government and NGO's:

The study revealed a shocking and terrible finding. 100% of people complained that neither government nor any NGO provided any help or came forward to uplift their social and economic condition.

DISCUSSION

The study from the selected site within Allahabad city shows that a major portion of urban slum and poor population is involved in rag picking. The reason to choose this trade is that, it provides them easy and quick source of income. This quick money generating activities has less legal obligations and formalities to be dealt with, so this trade is a quick pick by the urban poor population. The survey showed that there is gender hierarchy as well as child labour involved in this trade. The children and the female rag pickers were also found to be involved in this practice. The saddest part of the story is that the children below the age group of 10 years are also involved in this strenuous trade. It is a great matter of concern that minors below the lawfully permitted age of work are indulged in the job. Most of them are enrolled in government school but are not able to attend their classes because it hampers their work. Those children who are involved in this field are not getting proper education, proper nutrition and proper shelter. Also they have to face police harassment and negligence of people. The study also revealed an active participation of large number of females in this sector. Only one age group where females are lesser involved is in the age group of 10 -20 years. This age group comprise of the teen age girls who are nowadays not much indulge in this occupation. The radical drop in percentage of particular gender in this age group is due to the increased case of teenage female molestation in the past few years. In order to maintain the safe guard they are not allowed to get in the work, instead teenage girls are made to do housework when the other members are out for their work. Females are considered home maker but those who are involve in this work are out of their home for more than 8 hours and are not able to give full attention to their children and

home. One of the most significant results that have come up in the survey is the involvement of lower percentage of male population both in the age group of 20-30 years and above 30 years in the Allahabad city. After a detailed survey it was found that major male population of urban poor of Allahabad city has migrated to other state in order to feed the need of family. The individual left behind are either involved in this work or choose some other informal way of earning. The survey also brings out a sad picture of health of these poor populations. The general health condition was found bad. A majority of the population involved in the trade complained of ill health. One of the typical facts that flashed in the survey is that the most of the rag pickers have a large family. One of the drastic facts is that none of the family of the surveyed rag pickers has 3 or less than three members in the family. As the size of family is big and major male population has migrated so the females and the children are most involved in this sector in order to fulfill the family need. The rag pickers socio-economic condition was also not found satisfactory. Rag picking is one of the most important elements in the cyclic process of reusing the material by the formal industrial market economy. Despite this, these individuals have always been a neglected and underprivileged section of the society. Neither the society nor the government is giving proper attention to this weaker section. The government has to come up with an innovative idea and correct policy to upgrade the situation of this section of the society. The individuals of the society should also change their attitude towards this section and should try to embrace them in the mainstream to construct a healthy society.

CONCLUSION

The growth of population, increasing urbanization, rising standards of living due to technological innovations have contributed to an increase both in quantity and quality of solid waste. This solid waste is managed by the rag pickers who scavenge the city's garbage bins, riversides, streets and landfill site. Though rag picking is directly or indirectly involved with the solid waste management but due to legal institutional framework and social awareness of the people, the voices of rag pickers have been found unheard. Rag pickers play a major role in keeping our city clean; if they leave their work even for a single day the city would look like a garbage centre. Even having a weak social and economic status they carry out their work with great responsibility. The city's prosperity depends upon the integration of formal and informal markets. Rag picking is categorized into one of the informal jobs adopted by the poor urban population. Instead of accepting rag picking and rag pickers as the nuisance of city environment, we need to accept them as a part of the society & need to integrate them with city's integrity.

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