



Role of waste pickers in reducing waste & conserving environment of Jammu city: An empirical study

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Abstract

According to Furedy (1992) the waste economy, in the Asian countries, comprises of a large number of urban actors and activities in waste trading. In case of India, the hierarchy is as follows, Waste picker, Middleman/contractor, Scrap dealer, Second hand markets, recycling industry. Waste picking involves, as the name suggests, picking up of waste from the unidentified garbage, dumping points around neighborhoods, streets, drains, public spaces thereby making their position highly vulnerable. Keeping this in view an attempt has been made in the present study to ascertain the living & working condition of waste pickers, their contribution in waste collection and in conserving the environment of Jammu city. The present study is based on Primary as well as Secondary sources. According to them, all of them joined this occupation because it does not require any specialization or skill, training and no input is required. Most of the rag pickers collect refused waste from garbage, street bins, drains, rivers side etc. mostly plastic, iron & metals, cardboard without making any payment, whereas itinerant buyers collect daily, wrapper's plastic, cardboard, iron, metals, newspaper, books, notebook, glass & plastic bottles etc. from homes & shops etc. by making payment for it. The daily waste collected by the rag pickers has been 1096 kg and the average waste collected is near about 27 kg per day whereas itinerant buyers collect 1430 kg of waste daily and the average waste collected by them has been near about 36 kgs per day. Total (80) waste pickers collect monthly near about 757 quintals of recyclable waste, of which Rag pickers contribute near about 328 quintals i.e. 43.4 per cent and Itinerant buyers contribute 429 quintals i.e. 56.6 percent, by selling this they get income through self-employment. Waste pickers generate monthly income of Rs. 3,12,900 per month out of recyclable waste of 757 quintals, of which 42.7 per cent has been generated by Rag pickers and 57.3 per cent by Itinerant buyers. Thus waste pickers have been playing an important role through supplying waste to the recycling industry, reducing the pressure on natural resources (such as paper plantation, extraction of iron ore etc.) & in conserving the environment.

Keywords: waste, rag pickers, itinerant buyers, inclusive growth, recycling industry

Introduction

High rate of population growth accompanied by declining employment opportunities in the rural areas and shift from stagnant agriculture sector to more paying urban occupations, largely contributes to urbanization. The proportion of population living in urban areas has increased from 17.35 percent in 1951 to 31.2 percent in 2011 (Census, 2011) ^[1]. According to Khurshid & Sethuraman, one out of every three person is living in urban area and it is projected that as much as fifty percent of India's population will live in cities in the next 10 years this trend of increasing population in urban areas will continue despite the government's efforts of providing all urban amenities in rural areas. The high rate of urbanization combined with globalization has impacted upon the production & consumption patterns of citizens (Ed. Muller & Laroui, 2000) which has added the burden on the environment and on the public health of the cities as a whole, calling for an integrated approach towards solid waste management. In spite of the increase in government's efforts to manage the cities during the last seventy years of its independence & the heavy expenditure made by the Civic bodies (such as town area committees, municipal committees, Municipal Corporation) management of municipal Solid

Waste continues to remain one of the most neglected areas of urban development in India. Heaps of garbage and wastes of all kinds (biodegradable, recyclable, construction, hazardous or soiled) littered everywhere has become common sight in urban life in streets, public places, banks of rivers etc. The civic bodies are playing an important role in keeping the cities clean but when they fail, their efforts are supplemented by the waste pickers who provide free service to these institutions, while creating wealth out of waste. According to Furedy (1992) the waste economy, in the Asian countries, comprises of a large number of urban actors and activities in waste trading. In case of India, the hierarchy (ascending order) is as follows, Waste picker, Middleman/contractor, Scrap dealer, Second hand markets, recycling industry. This is due to variety of urban actors and their involvement in these activities. Waste picking involves, as the name suggests, picking up of waste from the unidentified garbage, dumping points around neighborhoods, streets, drains, public spaces thereby making their position highly vulnerable. While working with waste they are diminishing the ill-impact of garbage upon public health and environment, they create self-employment opportunity & generate income and wealth from the refused waste.

Review of Literature

Acc. to Yhdego (1991) ^[11], Waste recycling industry makes economic sense in as much as that it reuses, find new uses and alters the goods. Many businesses depend on regular supplies of waste materials from waste pickers. Dikshit (2006) in his study found that despite their low economic and social status, pickers and collectors are making important contribution to the society & through saving the government's expenditure for disposing waste. Akhter, (2011) in his study has highlighted the Scavengers and their role in recycling of waste in Southwestern Lahore & stated that they are making important contribution to environment and in the economy. The review of literature of various studies on waste pickers provides an in depth insight into their role in reducing burden on natural resources and environment and hence in the process of making India clean. In this backdrop, the present study is of worth investigating.

Objective & Methodology

Keeping this in view, an attempt has been made in the present study to ascertain the living & working condition of waste pickers, their contribution in waste collection and in conserving the environment of Jammu city. The present study is based on Primary as well as Secondary sources. Secondary data and information has been collected from various books, journals and reports etc. For conducting primary study from Jammu city four localities namely Railway Station, Gandhi Nagar, Bhagwati Nagar & Satwari have been selected randomly. A total sample of 80 consisting of 40 Rag Pickers and 40 Itinerant Buyers have been selected purposively for conducting the survey on a well-structured questionnaire through personal interview method. After the collection of the data it has been tabulated and analyzed with simple statistical tools, to realize the objectives of the study. In the present study waste is defined as refused waste (within house & shops, etc.) & thrown in open spaces, whereas Waste pickers are defined as Rag Pickers (who collect refused waste from garbage, dumping points around neighbourhoods, streets, drains, river

beds consisting primarily of plastic, paper, cardboard, metals, etc. without making any payment.) & Itinerant Buyers (who collect refused waste from households & shops directly by making payment at different rates on the basis quantity & quality of waste.

Significance & scope of the study

This study will be having wider policy implications as it will provide an insight to the policy makers with regard to the living & working conditions of waste pickers, their contribution in waste collection, reducing the burden on natural resources and in conserving the environment and making the urban area of Jammu city clean.

Findings of the study

Most of the Waste Pickers have migrated from different states of India as well as from outside the India such as Myanmar. So far as the place of origin of the Rag pickers is concerned, 32.5 percent, 27.5 percent and 10 percent have been from Myanmar, West Bengal and UP whereas the remaining 30 percent were from Assam, Bihar, Delhi, Madhya Pradesh, Maharashtra, Punjab and from the home state of J&K. Among Itinerant Buyers, 40 percent, 37.5, 10, 7.5 percent were from Bihar, UP, West Bengal and Punjab and 5 percent from J&K. Among total waste pickers, majority of them were from UP, Bihar, Myanmar and West Bengal while the others belong to the rest of the states. Among Rag pickers 35 percent of them were females and 65 percent males and 100 percent of Itinerant buyers were males. Among the total waste pickers, majority of them were from UP, Bihar, West Bengal and Myanmar, while the others were from the rest of the states. According to them, all of them joined this occupation because it does not require any specialization or skill is required. The waste pickers from outside India are actually refugees for the last five years and are holding the certificate of United Nations Refugee of Myanmar, the reason for their migration as stated by them is religious conflict with Buddhist as all of them are Muslims by religion.

Table 1: Age and Sex Composition of the Waste Pickers.

Age Group	Rag Pickers			Itinerant Buyers			Total		
	Male (%age)	Female (%age)	Total (%age)	Male (%age)	Female (%age)	Total (%age)	Male (%age)	Female (%age)	Total (%age)
≤ 14	6 (15)	8 (20)	14 (35)	--	--	--	6 (7.5)	8 (10)	14 (17.5)
14-25	6 (15)	2 (5)	8 (20)	12 (30)	--	12 (30)	18 (22.5)	2 (2.5)	20 (25)
25-40	7 (17.5)	2 (5)	9 (22.5)	14 (35)	--	14 (35)	21 (26.25)	2 (2.5)	23 (28.75)
40-60	5 (12.5)	1 (2.5)	6 (15)	12 (30)	--	12 (30)	17 (21.25)	1 (1.25)	18 (22.5)
60-above	2 (5)	1 (2.5)	3 (7.5)	2 (5)	--	2 (5)	4 (5)	1 (1.25)	5 (6.25)
Total	26 (65)	14 (35)	40 (100)	40 (100)	--	40 (100)	66 (82.5)	14 (17.5)	80 (100)

Source: Survey data, 2016.

Among the Rag pickers 35 percent were in the age group of less than 14 years of age, 20 percent of 14-25 years, 22.5 percent of 25-40 years, 15 percent of 40-60 years and 7.5 percent in the age group of 60 and above. Less number of females after the age of 14 years were found engaged in the rag picking as their mobility has been restricted by their parents & who prefer them to engage in their household work. So far as Itinerant buyers are concerned, no itinerant buyer has been found in the age group of less than 14, but 30 percent, 35 percent and 30 percent were in the age group of 14-25, 25-40,

40-60 respectively and only 5 percent were found in the age group of 60- above. In the age group of 40-60 and above 60 years of age, less number of respondent were engaged in rag picking and in case of itinerant buyer less number of respondents were found in the age group of above 60 years (because of more proneness to diseases due to poor working conditions). Out of total waste pickers, it has been found that 17.5 percent of waste pickers were in the age group of less than 14 years, 25 percent in between 14 to 25 years, 28.75 percent in between 25-40 years, 22.5 percent in between 40-60

years and 6.25percent in the age group of 60- above years. Out of total waste pickers, 82.5 percent were males and 17.5 percent were females in the study area.

Out of total, 58.75 percent of waste pickers have been Hindu, 38.75 percent Muslim and 2.5 per cent were of Sikh religion. So far as caste is concerned 10 percent belonged to general caste 28.75 percent to scheduled caste (SCs), 36.25 percent to other backward castes (OBCs), 6.25 per centto scheduled tribes (STs) and 18.75 percent were unaware of their caste. Among the Rag pickers 40 per cent were of Hindu religion, 60 per cent of Muslim. So far as caste is concerned among rag pickers, 7.5,25, 22.5, 7.5 percent were from general caste, SCs, OBCs& STs and 37.5 per cent were unaware of their caste. Among the Itinerant buyers, 77.5 per cent were from Hindu religion, 17.5 per cent of Muslim and 5 percent of Sikh religion, of which 12.5 were of general caste, 32.5, 50, 5 percent were of SCs, OBCs & of STs. One of the important finding is that no respondent of Christian religion was found to be engaged in this occupation.

So far as marital status of Waste Pickers is concerned, it has been found that, among rag pickers 55 percent of the respondents were married and 45 percent were unmarried, among Itinerant buyers, 87.5 percent were married and 12.5 percent as unmarried, of total 71.3 per cent of waste pickers were married and remaining 28.7 percent were unmarried. Regarding nature of family it was found that 72.5 percent of rag pickers were living in nuclear family and 27.5 percent in joint family, whereas 65 percent of itinerant buyers were living in nuclear family and 35 per cent in Joint family with family size of 1-4, 5-7, 8 and above members. Therefore, out of total waste pickers 68.75percent were living in nuclear family and 31.25 percent in joint family. Hundred percent of the rag pickers were illiterate whereas all the itinerant buyers were having the low level of education. This can be attributed as one of the reasons for occupying this low level of occupation at the present place

87.5 per cent of Rag Pickers were living in Jhuggis/slums and 12.5 percent in Semi Pacca houses. Whereas 85 per cent and 15 percent of Itinerant buyers, have been found living in semi pucca and pucca houses respectively. Thus the living condition of itinerant buyers was found better than of the Rag pickers. Out of total waste pickers, 43.75 percent of waste pickers were found living in slums/Jhuggi, 48.75 per cent in Semi pacca house and 7.5 percent in pacca house. 57.5 per cent of waste pickers had tap water, 35 per cent, hand pump water and remaining 7.5 per cent had both hand pump and tap

water for drinking and other purpose. Regarding toilet facility, 60 percent of rag pickers and 50 percent of Itinerant buyers have latrine facility whereas rest of them had go in open places for defecation. Thus the living condition of the waste pickers was poor.

So for as the number of working hours were concerned it has been found that 30 per cent of Rag pickers including mostly women and children work for 1-5 hours to assist their family whereas 45 per cent were found working for 6 hours and 25 per cent, for 6-8 hours in a day including some time for rest intervals. On the other side, 62.5 percentof Itinerant buyers have been working for 6-8 hours and 37.5per cent for more than8 hours in a day with some intervals for lunch & rest. Of total 15 per cent waste pickers were found working for 1-5 hours daily, 53.75 per cent for 5-8 hours and 31.25 per cent for 8-12hours a day. Thus the majority of waste pickers were found working for 5-8 hours in a day.45 per cent of rag pickers have been travelling up to 1-4 kms daily for collection of waste material, 35 per cent upto 4-6 kms and 20 percent more than 6- kms a day while among Itinerant buyers 12.5 per cent have been travelling for 1-5 kms, 75 per cent for 5-8 kms, 12.5 per cent for 8-12 kms on daily basis within the selected localities, except some days. All of the waste pickers said that they take break during different days in order to refresh themselves & during their sickness. Many waste pickers practice this trade as a full-time profession; its flexible hours make it accessible to women with other care responsibilities and to illiterate people with no skills. Waste picking serves as a safety net to street children, orphans, the abandoned, widows, migrants, the unemployed and victims of armed conflicts.

All the Itinerant buyers in the study area were found using bicycle for collection and transportation of waste material whereas some of the rag pickers were using tricycle, bicycle and some used to collect the waste material on their heads and shoulders. Those with supportive mechanism were covering a long distance but others with no bicycle or tricycle were covering a shorter distance by foot. They were collecting the material in plastic bags, after filling and putting them on their shoulders /heads, used to sell it to the local scrape dealers. It has been found that 20 per cent of rag pickers transport the material through bicycle, some of them have got it from their dealers. 25 per cent of rag pickers collect and transport the material by putting the waste material on heads /shoulders and remaining 55 per cent were using tricycle.

Table 2: Monthly Waste Collection and Income Generation byWaste Pickers

Waste Pickers	Waste collection monthly in Kgs.	Income generated monthly in Rs.
Rag pickers (40)	32,880 (43.4)	1,33,500 (42.7)
Itinerant Buyers (40)	42,900 (56.6)	1,79,400 (57.3)
Total (80)	75,780 (100)	3,12,900 (100)

Source: Survey data, 2016.

(Figures in brackets showing Percentage with respect to total sampled respondents)

Table 2 reveals that, all the waste pickers under study were collecting 757 quintals of recyclable waste in a month, of which Rag pickers collected 328 quintals i.e. 43.4 per cent and

Itinerant buyers collected 429 quintals i.e. 56.6 percent of it, by selling this they get income through self-employment. The daily waste collected by the forty rag pickers has been 1096 kg & monthly near about 328 quintals of waste, whereas forty Itinerant buyers collect 1430 kg of waste daily and monthly

they collect near about 429 quintals of waste.

Waste pickers generate monthly income of Rs. 3,12,900 through the sale of recyclable waste of 757 quintals, of which 42.7 per cent i.e. RS.1,33,500 has been generated by Rag pickers and 57.3 percent Rs.1,79,400 by Itinerant buyers who collect waste after making payment to the households. The rates imposed by the dealers on collected waste material by the itinerant buyers have been higher in comparison to that of rag pickers because the material collected by them includes dust and their price is placed at low level. The whole chain of going for three 'R's i.e. reducing, regenerating & reusing has been that the waste pickers, sell their collected waste to retail scrap waste dealers, who in their turn sell it to the wholesale scrap waste dealers & the wholesale scrap waste dealers finally sell & supply it to the local industry in Bari Brahmana of Jammu & Kashmir & to the outside state of Punjab (iron & steel industry in Pathankote & paper industry in Ludhiana) for reducing, regenerating & reusing.

Conclusion & Problems

Waste pickers despite their poor living & working conditions, generate self-employment and Income, save the expenditure of municipal corporation of Jammu city for disposing waste, helps the owners of the households to make their homes clean through disposal of waste, supply the waste to the recycling industry, reducing the pressure on natural resources, such as paper plantation, extraction of iron ore etc. but they have to bear a cost by working in unhygienic conditions, which is not good for human resource development. Majority of rag pickers were found suffering from different types of diseases such as problem of Tuberculosis (T.B) Cancer, Diarrhoea, Jaundice, Malaria, Allergy, Fever, Flew, Cuts/injuries, Dog bites etc. whereas less number of itinerant buyers were having such diseases. So far as Harassment and Exploitation of waste pickers is concerned, it has been found that 51.25 per cent of waste pickers were harassed /abused by the local people, 15 per cent by the police men and 23.75 per cent by drunkers and many of them reported that they were beaten many times by the local people. Rag pickers were the worst sufferers than the itinerant buyers. Out of total, 66.25 percent of the waste pickers were taking alcohol, 61.25 percent cigarettes and 80 percent of waste pickers used to take tobacco/gutka/ pan chutki etc. According to them it is necessary for their survival & to continue in the same work because they have to cover a long distance during hot summer and cold winter. Different climatic condition too affect the lives the waste picker. Keeping their role in view it can be concluded that through supplying waste material to the recycling industry, they reduce the pressure on natural resources (such as paper plantation, extraction of iron ore etc.) & thereby conserving the natural resources and environment are working in the direction of sustainable development. The government of the Jammu & Kashmir State must provide them the free medical facilities & should also cover them under social safety nets.

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