CHALLENGES OF SCAVENGER IN MALAYSIA

SEOW TA WEE

7TH WORLD CONGRESS ON RECOVERY, RECYCLING AND REINTERGRATION WITH EXHEBITION
25 -29 SEPTEMBER 2004
BEIJING CHINA

Perp. UPS/PP

BORANG PENYERAHAN KERTAS KERJA, LAPORAN DAN PENERBITAN-PENERBITAN KEPADA PERPUSTAKAAN KUiTTHO.

A. Maklumat peserta.

1. Nama : SEOW TA WEE
2. Fakulti/Jabatan: JPBHT, FPT
3. Tajuk Seminar/Kursus/Bengkel/Persidangan/Simposium :
   7th World Congress on Recovery, Recycling and Re-integration with Exhibition.

4. Tajuk bahan yang diperolehi :

i. Challenges of Scavenger in Malaysia
ii. CD R'05
iii.

5. Tarikh Seminar/Kursus/Bengkel/Persidangan/Simposium : 25 - 29 September 05

6. Tempat : Beijing, China.

.....
Tandatangan dan tarikh. 2-12-2005

B. Pengesahan Perpustakaan.

Adalah dengan ini disahkan bahawa ..... SEOW TA WEE .....
telah menyerahkan kertas kerja, laporan dan penerbitan-penerbitan yang telah dihadiri kepada Perpustakaan KUiTTHO.

.....
Tandatangan 16/12/2005
Nama Pegawai dan cop rasmi.

HISTAM ABDUL SHOKOR
Pustakawan
Perpustakaan
Kolej Universiti Teknologi Tun Hussein Onn
Beg Berkunci 101, Parit Raja
86400 Batu Pahat,
Johor Darul Takzim.

C. Untuk kegunaan Pejabat Pendaftar

Penyerahan kertas kerja, laporan dan penerbitan-penerbitan yang telah dihadiri disahkan.

CHALLENGES OF SCAVENGERS IN MALAYSIA

Seow Tawee
Department of Construction and Property Management
Kolej Universiti Teknologi Tun Hussein Onn
86400 Batu Pahat,
Johor, Malaysia.
tawee@kuittho.edu.my

Abstract: The scavenging activities are one of the common phenomena in the Third World Countries. The scavengers often related to poorness, uneducated and unhealthy group but they are playing the importance role in the recycling activities in Malaysia. The article discusses the scavenging activities and the socioeconomic situation of scavengers in Malaysia. The result showed that the scavenging activities could generate the good income for most of the scavengers, there are four types of scavengers in Malaysia, the scavengers did not report their true health information due to the some constraints, 60 percent of scavengers need necessity at their work place, they realize that the activities of scavenging can reduce amount of solid waste, and lastly scavengers are exposed to the hazardous and unhealthy work place environment.

Introduction

In large cities throughout the developing world, poor individuals survive by salvaging waste materials, primarily recyclable materials, in open dump sites. These people recover the material to sell for reuse or recycling. They also collect different items for their own consumption. These people are generally known as scavengers or ragpickers. Scavenging is a widespread phenomenon. In many developing countries, scavengers can be found on the streets or in open dumps or landfill areas (JICA 2002). In most Asian countries, there is an informal recycling system which works along with the formal system of municipal waste management system. Scavengers go from home to home and buy recyclable material like paper, plastic, glass and old clothes, thus preventing these things from going into dump sites.

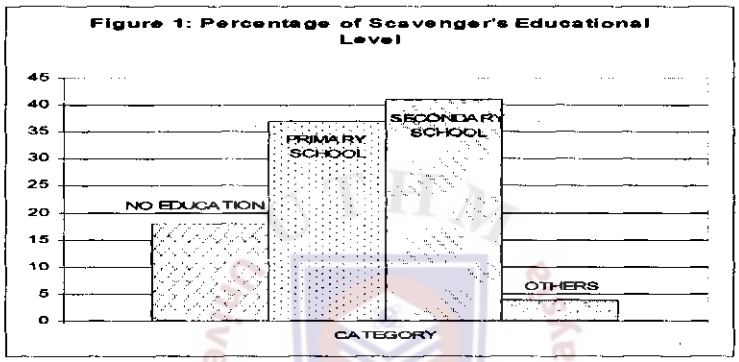
It is difficult to quantify the total contribution of the informal sector to urban waste management. The informal nature of this sector inherently implies lack of official statistical data. Quantification of informal recovery is therefore scarce an uncertain. For Mexico, scavengers are estimated to remove 10% of the municipal waste (Bartone et al., 1991). In Bangalore, India the informal sector is claimed to prevent 15% of the municipal waste going to the dumpsite (Baud and Schenk, 1994). In Karachi, the informal sector reduces municipal waste collection by 10% (Ali et al., 1993). Based on the World Bank estimation, 1 – 2% of the population of big cities is supported directly or indirectly by the refuse generated by the upper 10 – 20% of the population (Hogland and Marques, 2000). Scavenging not only provides a source of income to the poorer segments of the population but also reduces the need for highly sophisticated and costly recovery systems. The objectives of this paper are (i) to determine the type of scavengers in Malaysia; (ii) to determine the level of social economic of scavengers; (iii) to determine the need at the work environment as a scavenger; (iv) to determine the level of health and issue environmental knowledge among the scavengers.

Method and Area of Study

The study was exploratory in nature using a set of questionnaire to survey the scavenger. The questionnaire consisted of six parts. There are (i) background of the respondent; (ii) information of scavenging activities; (iii) information of socioeconomic; (iv) income information; (v) information of health; and (vi) knowledge of environmental issues. The random method used to get the respondents at landfill, road side and institution. The case study was carried out in Johore State of Malaysia.

Finding and Discussion

The total of respondents is 206 people. There are 48 respondents in Muar District, 31 respondents in Batu Pahat District, 41 respondents in Kaluang District, 12 respondents in Kota Tinggi and 74 respondents in Johor Bahru District. 154 (75%) of the respondents are male and others are female (25%). 25 of respondents are foreigner, most of them are from Indonesia and Nepal. 18 % of the respondents never get the education, 37 % of the respondents just only have the education level at primary school, 41 % of the respondent at the secondary school level and 4 % of the respondents are informal education (others) (Figure 1).



Like others countries, scavengers in Malaysia have two types, there are work as permanent and part time job, 30 % of the scavenger work as full time job and others are park time. 15 % of respondents are work in landfill or dump site, 19% in road site, 21 % in institution and 45 % are freelance to collect the recyclable material in anywhere (Figure 2). Most of the scavengers (41%) work 7 days per week, 33 % work 6 days per week, 13 % work 5 days per week, 16 % work lest then 5 days. Most of them will spend 1 to 15 hours per day for work. Scavengers not only collect the recyclable material for selling but they also kept it as own-use for some of well product. Commonly, the waste is sorted into different categories including paper, cardboard, textile, leather, aluminum can, plastics, glass bottles, ferrous metal and wood. The table 1 show that the type of recyclable material and own-use recyclable material such sofa, mattress, books, and clothes.

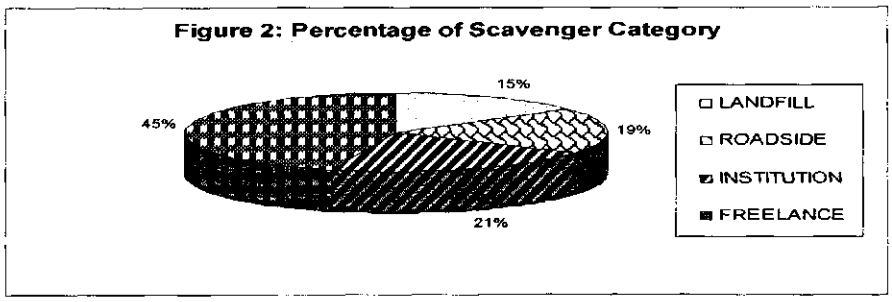


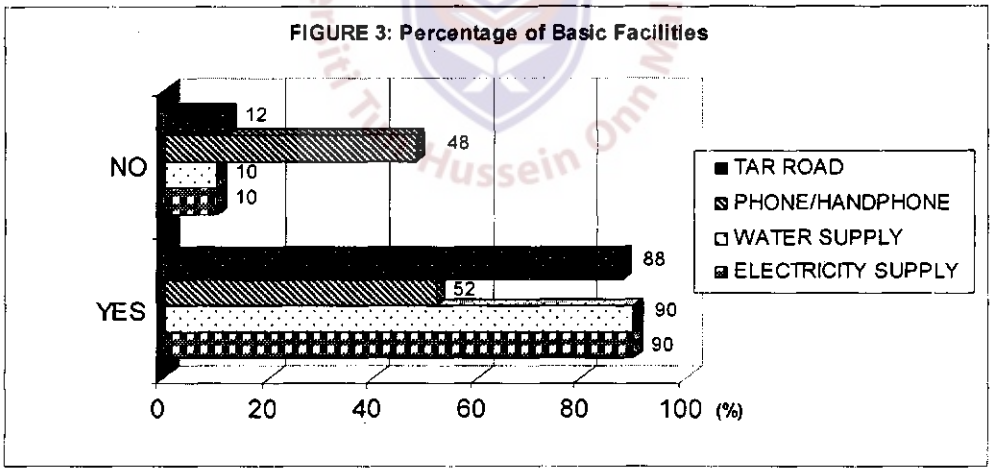
Table 1: Frequency of Scavenger Sell and Own Use Recyclable Material

TYPE	Sell	Own use
PAPER (ALL TYPES OF BOX)	138	134
PLASTIC	47	45
METAL	178	177
RUBBER	12	8
LEATHER	3	1
TEXTILE	19	5
GLASS	13	13
FOOD WASTE	6	2

Most of the scavengers spend the productive period of their lives at the landfill while others work there temporarily when unable to find employment in the labor market. They may have ordinary jobs such as security guards, operators, house wife, cleaners, and blue collar worker. The scavenging activities produce the good income for scavenger. The table 2 show that the average weekly income of scavengers earning through the scavenging activities. Most of them earn less then RM50 (USD 13.16) per week. Most of scavengers buy recyclable goods directly from households or shops, than sell it to the dealer. But some of scavengers acquire recyclable waste from the streets, in heaps outside houses or the transfer station, although they do not usually pay for the waste.

Table 2: Average Weekly Income

Income rate	Frequency
Less then RM 50 (USD 13.16)	178
RM51 – RM100 (USD 13.17 – USD 26.32)	15
RM 101 – RM 150 (USD 26.33 – USD 39.47)	1
RM151 – RM200 (USD 39.48 – USD 52.63)	4
RM201 – RM250 (USD 52.64 – USD 65.79)	1



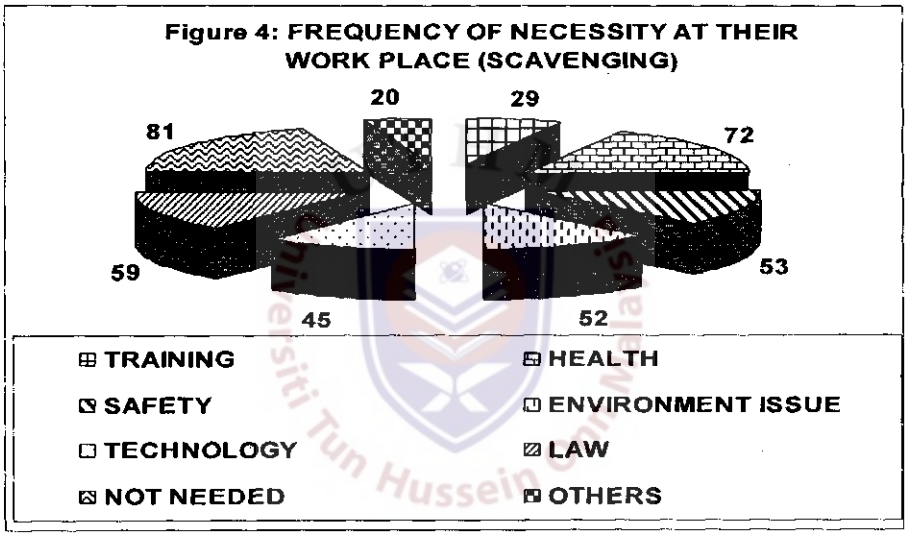
Nearly sixty percent from the total scavengers (57%) have their own house, 31 % from them rental the house, 24% from them staying at the landfill. Figure 3 show the basic facilities possessed by scavengers. There are tar road front of the scavenger's house, telephone or handphone / mobilephone, clean water supply and electricity supply. Most of them have possessed by these facilities. Table 3

show those main monthly household expenditure spend by scavengers. Scavengers spend large amount for their house renting / installment, car installment and insurance.

Table 3: Monthly Expense for Household Scavenger

CATEGORY	TOTAL (RM)	USD
HOUSE RENTING/INSTALLMENT	50 - 400	13.2 – 105.3
CAR INSTALLMENT	200 - 400	52.6 - 105.3
ELECTRICITY	1-100	0.3 -26.3
WATER	< 50	< 13.2
PHONE (HOUSE)	< 100	< 26.3
HANDPHONE	< 100	< 26.3
INSURANCE FOR WHOLE FAMILY	< 800	< 210.5
MEDICAL	< 50	< 13.2

The analysis shows (Figure 4) that scavenger needed work training like technology usage, sorting and segregation the waste. They also needed the knowledge regarding the safety, health and environment at their work place. They also concern about the law's and regulation's information but 81 of respondents they do not need any necessity in their work place.



Human contact with refuse implies a high risk for a variety of diseases including tetanus, typhoid, hepatitis and cholera. Infectious diseases can be spread either by direct contact with the waste, by animals such insects, birds, goats and cows, or by windborne distribution. Table 4 show that the type of disease infected by scavenger and their family. The common disease infected by scavenger and their family are hypertension (17 cases), diabetes (13 cases), asthma (14 cases), heart disease (8 cases), skin disease (2 cases), kidney disease (2 cases), cancer (2 cases), HIV/AIDS (1 cases) and others (15 cases). There is one case regarding with HIV/AIDS disease, that cases is due to that scavenger is the drug addict. Most of them are sensitive when asked the question regarding with their health information. Some of them threat the skin disease as a common disease because could not be taken their life. Scavengers often live on or beside landfill (for those do not have house) in order to await the arrival of waste filled trucks. They sort the waste with bare hands, sticks or simpler hooks (picture 1).

Table 4: Type of Disease infected by Scavenger and Their Family

Type of Disease	Frequency
Heart disease	8
Hypertension	17
Diabetes	13
Skin	2
Asthma	14
Kidney	2
Cancer	2
HIV/AIDS	1
Others	15

Picture 1: Scavengers working on a landfill

The total eleven of the question (Table 5) regarding with the scavenging activities and the issues of environmental had been questioned. The results show that scavengers knowing that solid waste will harmful the environmental and can bring the diseases to the human. At the same time, they also agreed that scavenger have to concern about their safety issue at their work place. Most of them do not know that they have to register with local authority to get the permit to do scavenging. They are lack of knowledge into scavenging activities can bring hazardous to them.

Table 5: Percentage of Opinion of Scavenger Regarding With The Environmental Issues (%)

Issue	Yes	Not Sure	No
Solid waste could bring the disease	72	9	19
Solid waste is one of the environmental issue	75	18	7
Scavenging activities need to register with local authority	22	26	52
Scavenger expose to the hazardous work environment	26	29	45
Scavenging activities could bring harmful to the environmental	8	13	79
Scavenger have to concern the environmental issue	45	41	14
Scavenging reduce the amount of solid waste	91	5	4
Scavenger need the special equipment	40	32	28
Scavenger need the safety at work place	61	26	13
Scavenger need to expose to the safety knowledge	40	34	26
Scavenger need to expose to the environmental knowledge	40	34	26

Conclusion

Based on the studied, the challenges of scavenger in Malaysia could be concluded into below phenomena:

- Scavengers in Malaysia play the importance role in the formal and informal solid waste management especially in term of waste minimization.
- Activities of scavenging have done full time and part time work for some interest parties in Malaysia.
- Scavengers in Malaysia are exposed to the hazardous and unhealthy work place environment.
- Scavengers do not know they have to register with local authority to get the license in their daily activities.
- Scavengers urgently needed the training regarding with safety and health at work places.
- The values (price) of the recyclable material depend on the global market price therefore will affect scavenger's monthly income.

Based on the available data, some strategies can be implemented in order to promote improvements in the scavenger's quality of life. In the methods used to reach this goal needs to take into account that scavenging a non-capitalist activity articulated with the capitalist sector through the market. To transform scavenging, any programs should introduce commodity relation and rationalization of production of recovered materials. Improvements may be made through social, technical or managerial assistance and credit, to transform the scavengers into an organized cooperative. The actors of the informal sector should be incorporated into the formal sector and for instance be provided with sanitary working conditions. Municipalities in developing countries are slowly beginning to recognize the merits of the informal recovery sector. As a result some policy makers have to try to accommodate scavengers in the policy.

Reference

Ali, S. M., Cotton, A. and Coad, A. 1993. Informal sector waste recycling. Paper presented at the 19th WEDC Conference on Water, Sanitation, Environment and Development. Accra, Ghana. pp: 153-155.

Bartone, C., Leith, L., Triche, T. and Schertanleid, R. 1991. Private sector participation in municipal solid waste service: experiences in Latin America. In: Waste Management and Research. No 9. pp: 495-509.

Baud, I. and Schenk, H. 1994. Solid waste management: modes, assessment, appraisals and linkages in Bangalore. Manohar: New Delhi.

Japan International Cooperation Agency (JICA) (2002). *Scavenger and Societies*. Waste and The World – Mac 2002 (vol. 15). Tokyo. JICA Network.

Hogland, W., and Marques, M. 2000. Waste management in developing countries. In Solid waste management. Grove,. V. I. et al (edt). A.A. Balkema Publishers: USA.