CHAPTER FOUR
RESEARCH METHODOLOGY

4.1 Introduction
A research was conducted in order to identify the condition of the community's awareness in solid waste management. This research is based in the area of Petaling Jaya, where four areas have been selected. In relation to it, six households in each area from different races were interviewed. The respective residents associations, was also interviewed depending on their availability. NGOs which are involved directly or indirectly in Petaling Jaya are also interviewed. Finally, an interview session, was also carried out in the MPPJ on respective issues.

4.2 Outcome of the Interview Sessions with the Residents
The research areas are Section 17, Section 10, SS 9A and Kampung Lindungan. The interview questions were focused on four categories as per listed below:-

a) The background of the respondents
b) Knowledge on solid waste management system
c) Awareness on waste reduction programmes
d) Involvement with NGOs/CBOs

A sample of the questions are shown in Appendix 2.
4.2.1 Section 17

This area is located in the zone of PJ5. Majority of residents are Chinese, followed by Malays and only a small portion are Indians. The community in this area could be classified as a high earning income group. Section 17 could be listed as one of a wealthy community area in Petaling Jaya.

a) Background of the respondents

The average household size is about five persons. All the houses interviewed have children below five years old. Most of the residents can be classified as a permanent resident, who have been staying there between five and fifteen years. Most of the residents interviewed possessed a high educational level (up to tertiary education).

b) Knowledge on solid waste management

The residents generate an average of 1 to 1.5 kg solid wastes in a day and each house is equipped with their own garbage bin. According to them the AFSB’s workers collect garbage 3 times a week and the residents are generally satisfied with the collection service provided.

c) Awareness of waste reduction programmes

The respective residents are aware of the programmes and also practising them by sending the recyclable goods to PJCC, which is situated in the same section. These residents are very much aware of the effect of the increasing waste to the environment. Therefore, they
provide satisfactory participation and are willing to adopt any further waste reduction programmes in the future.

d) Involvement with NGOs/CBOs

Section 17 has an active residents committee, which is referred as 'Rukun Tetangga' in the areas 17A, 17C and also a 'Balai Raya' in 17/1A. These committees are directly attached to the PJCC in carrying out activities. The people are active in participating in the activities that has been planned for them. As an active resident, they are always eager to voice a collective opinion if there is a need to do so on any environmental issue.

4.2.2 Section 10

This area belongs to zone PJ8, consists a majority of Chinese followed by Indians and Malays. The households in the area could be categorised as an above average group in income.

a) Background of the respondents

The household size ranges from five to nine people with fewer children below five years old. The residents here seems to have stayed for quite a long period of time, range from five to twenty years. Most of the residents here are educated up to upper secondary level.

b) Knowledge on solid waste management

An average household generate between one and two bags of waste, which is roughly estimated to be about 1 to 2 kg. Like in Section 17, the residents have their own garbage bins and the collection is
regular-3 times a week. Some of the residents seek more frequent service as sometimes the dogs and crows in the area scavenge the waste.

c) Awareness of waste reduction programmes

The residents are aware of the programmes through public talks and newsletters that are being circulated by the residents association in the area. In response to it, they send the recyclable goods to the nearby recycling collection centre namely, TrEES. The residents here seem to be quite similar in attitude to the residents in Section 17 in showing their interest in the environmental programmes.

d) Involvement with NGOs/CBOs

The residents in Section 10 have formed a residents’ association to protect themselves from any agitation to their lifestyles. Most of the residents have taken initiatives to contribute to the programmes and are willing to express their opinions in any respect involving the environment.

4.2.3 SS 9A

SS 9A is located in zone PJ7. This area is inhabited by more Malays and Chinese compared to Indians. Majority of the residents here belong to the middle class families, categorised as average income group. Since it is an industrialised area, most of the residents are the employees of the nearby electronic manufacturing companies, such
as National Panasonic and Motorola. Most of the houses in this area have been extended to accommodate tenants.

a) Background of the respondents

In this area, number of members per household ranges from five to twelve persons, with a few children below five years old. The respondents have been staying here for more than 10 years. Some of the respondents have up to secondary level education.

b) Knowledge on solid waste management

The waste generated per day ranges from 1 to 3 kg. The wastes are collected 3 times a week. Unlike, in earlier case areas, the bins are for the use of landlords while the tenants are not allowed to use these bins. The tenants dispose off their waste into a large man-made concrete bin. According to them, the waste collector collects the waste from this large bin too. The respondents complaint of garbage strewn along the roadside resulting from the tenant’s lackadaisical attitude. In terms of waste collections, this area poses some problems with the waste collectors as waste materials are not disposed properly.

c) Awareness of waste reduction programmes

Some of those educated residents who are aware of the waste reduction programmes sells the recyclable wastes while the others do not take any initiative to curb the increasing waste. According to the
factory workers with shift work schedule, they would like to participate if they are given proper guidance and assistance.

d) Involvement with NGOs/CBOs
This area does not have a residents committee, perhaps due to unfriendly members of the neighbourhood. Although they are aware that improper waste disposal could cause serious effects to the environment, they are in opinion that forming a residents’ association will not be a beneficial one. Residents here have the tendency to mind their own business. Nonetheless, some of them are aware of the existence of NGOs through the newspapers. Some of them expect that the government and the waste manager will take immediate actions to find a quick solution to their problems.

4.2.4 Kampung Lindungan
Kampung Lindungan is a squatter area, situated in PJS6 designated with PJ10 zone. It is relatively a poor area with inadequate supply of water, waste collection, sewerage treatment and improper roads. In terms of electricity supply, the residents operate their own generators to generate the electricity. Majority of the residents are Malays and Indians. Only a few are Chinese.

a) Background of the respondents
In this area, the number of members per house ranges from seven to fifteen, with most of the families are of extended type and therefore have many children below five years old. The residents have been
living here between 15 years and 35 years. The highest level of education discovered is secondary and some do not even have any basic education.

b) Knowledge on solid waste management
In average, they do generate between two and three bags of waste a day, weighing in total approximately 2 to 3 kg. A large community bin is placed at the edge of the area provided by the waste manager. According to them they do have collection service once a fortnight. Sometimes, the wastes will only be collected when a complaint was made. Furthermore, garbage is strewn along the walking path and behind the houses. This improper solid waste disposal and an existing improper sewerage flow system make the area to be the centre for breeding of vectors, especially when it rains. As the respondents complained, a few months ago, many residents were admitted in the University Hospital for dengue fever, and till to date, the situation is not under control.

c) Awareness in waste reduction programmes
Almost each household is not aware of any waste reduction programme in the area or in surrounding area. They are busy carrying out their daily activities without paying any attention to curb the increasing waste. However, they are very much aware of the situation that the improper waste disposal would lead to health problems. Some of them are aware that the increasing waste will
affect the environment. All the respondents who were interviewed are hoping that they will be guided on a waste reduction programmes.

d) Involvement with NGOs/CBOs
The area does not having any particular residents' association. Given any serious problems, the residents will form a group to discuss the problem to seek solutions. Once a while, they carry out 'gotong royong', though it is rare. In addition, they are not aware of any NGOs or CBOs in the country. Although some form of awareness do exist, it is not consistent and any activity is abandoned when the problem is curbed.

4.3 Outcome of the Interview Sessions with NGOs/CBOs and MPPJ
The NGOs/CBOs namely MNS, TrEES, WWF, PJCC, Residents Association of Section 10 and MPPJ were interviewed on their contribution in getting the community's involvement toward a proper waste disposal. The questions asked are as shown in Appendix 3.

4.3.1 MNS
In regards to the privatisation of the solid waste management, an officer in the organisation commented that there should not be any waste management problem after privatisation. This is by comparing with the privatisation of sewerage system of Malaysia that has brought about a lot of inefficiencies. According to the officer, overall Malaysians do not have much awareness on waste reduction programmes compared to other developed countries. Anyway, this
statement is inapplicable to the urban community, whereby they have lots of sources to bring the issues to their attention, either from their own readings or from the intermediate groups.

4.3.2 TrEES

In regards to the efficiency of the privatisation of waste management system, the officer feels that the waste manager should move toward providing a better and efficient service rather than concerned with maximising profit which has always been the motive of any private company.

TrEES will be carrying out more activities and programmes to create awareness and to initiate a better participation from the public. Currently, the organisation’s recycling centre in Taman Jaya in zone PJ8 has been temporarily closed down for renovation works. This has slowed down their activities. As per the officer’s opinion on the awareness level of Malaysians there is still room to educate the public on proper waste disposal. This could be done through cooperation of the interest groups with the government.

4.3.3 WWF

According to the officer, privatisation brought efficiency because services will be based on competitive market. The officer also indicated that although the current awareness level among the community is said to be better than before, it is still not enough because only a few have very active voice responding on respective
issues. Therefore, overall awareness should be extended to the children and as well as the adults.

4.3.4 PJCC

According to an exco-member, privatisation would bring efficiency to serve the motive of the policy. The member stated this CBO was formed with the initiative and effort of the community itself and points out the significant awareness level of the respective communities. Moreover, it has been a role model for other communities to learn. They work together to reduce the waste and send the recyclable goods to the centre for recycling. In addition, most of them participate actively in all the programmes conducted by the centre.

4.3.5 Residents Association of Section 10

According to one of the exco-members, he does not believe in carrying out 'gotong royong' programme because this programme was initially introduced in Indonesia to clean up the country, because the government could not afford a solid waste management service since the country is so vast and scattered. According to the member, Malaysia does have a waste management system and it is able to carry out the services. The residents have also been advised to carry out a proper solid waste disposal, to make the whole process runs smoothly. It is believed by the association that this behaviour and attitude of every residents will help to form a clean and habitable
environment. The member also pointed out that the current participation level in the area is up to 75% only.

4.3.6 MPPJ

An interview with an officer has been conducted in this local authority. Questions were more focused to the programmes toward awareness building among the local communities. Although MPPJ has handed over the solid waste management system to a private company, it still plays an active role in helping residents to meet a high participation status from the public.

According to the officer, they are working it out to create a bottom-up approach, also called “backward mapping”, where the initiative starts from the base, i.e. from the community. Then these are conveyed through the residents associations and interest groups to the local authority. The local authority prefers the community to come forward with suggestions, for instance a suggestion of how to conduct the waste reduction programmes and where they want to conduct that particular programme, with facilities usually provided subsequently by the local authority.

They believe through this approach, the community themselves will have the initiative to create a sustainable environment. So, through this way, it is expected that there will be no need for enforcing laws as an additional tool in order to push the community to comply with it. Currently MPPJ is working together with TrEES to
set up the recycling centre in Taman Jaya. On the other hand, MPPJ is also managing composting plant in Jalan Penchala, Petaling Jaya.

4.4 The Inter-Relation between the Community and NGOs/CBOs

a) Crisis/problems
An establishment of a CBO is from the initiative of the residents or community. PJCC and Residents Association of Section 10 was formed to address the crisis or problem that has occurred in the respective residential area. Then slowly they developed towards an active community organisation. A successful CBO should operate continuously and shouldn't dissolve when the problem is solved. For instance, in Kampung Lindungan, a residents' association was formed, just to address some issues and when the problem has discovered a solution, there were no more activities to carry out, therefore the association is dissolved.

NGOs should act globally and not limited to one respective area and provides a wide range of activities for public participation. Regarding the issue of solid waste disposal, the respective NGOs play a role as an avenue to welcome public opinion that seeks solutions.

b) Education and awareness level
Education increases awareness, for instance, through newspaper readings, magazines and also news in television. The areas of Section 17 and Section 10 with a higher educational level, have led the formation of such associations. Looking into SS 9A and Kampung Lindungan, with lower education level implicate low awareness and
pose more problems then the other two. An appropriate educational level helps to smoothen the adoption of the waste reduction programmes.

All the NGOs/CBOs discussed are working towards promoting waste reduction programme, especially recycling, with support from the local authorities. For instance, TrEES was provided with a land by the MPPJ as a drop-off centre for recycling goods from the residents.

c) Illegal occupants

Three out of four residential areas that was surveyed have regular collection service by the solid waste manager, but in the case of Kampungan Lindungan, the service is said to be extremely poor. This could be caused by the nature of the area they are living in. For instance, Kampung Lindungan is a squatter area, hence inadequate basic facilities so.

e) Co-operation

A good and friendly neighbourhood promotes healthy activities to be carried out in order to gain a better living environment. In the case of SS 9A, landlords do not seem to be friendly. The tenants are not allowed to dispose their waste in the landlord’s bin, which is kept outside of the house.

In addition, as the residents are busy with work, they do not really spend time, taking initiative to form a residents association. In
the case of Section 10, the meetings are held in residents' houses, this connotes a friendly and caring neighbourhood.

4.5 Conclusion

From the outcome of the interview, problems or crisis, education and awareness level, inadequate facilities, and co-operation are important elements to enhance the formation of residents associations in residential areas. The residents' association not only helps to share knowledge but also play the role of providing additional security for the residents. This shows the important of forming a residents' association, not only to work toward a healthy environment but also to create a friendly and concerned neighbourhood.