

CHAPTER SIX CONCLUSION

The findings from the survey showed that solid waste management at Pantai Dalam had become a major issue. Residents churn out garbage at high levels and efforts to educate them to reduce waste have not been effective. The increasing solid waste problem reflects public's transition to a 'throwaway' society. An average of 1.8 kg of municipal waste was generated by residents in the study areas daily. Almost 95% of the household waste is mixed waste (includes food leftover, raw kitchen waste, and others). Municipal waste generation increased as the rates of resource consumption patterns and income level increased. The composition of waste generated varied due to different human behavioral pattern, religious practices, celebrations, festivals and status level. The findings also indicated that the carbon content in municipal waste from flats and squatter was 28 to 30 times more than nitrogen. This indicates that the municipal waste contained high organic content. The average content of Potassium, Calcium, Phosphorous, Magnesium and Nitrate are high at 940.5 mg/L, 797.5 mg/L, 107.5 mg/L, 155.5 mg/L, and 147 mg/L, respectively. The presences of these metals affect the quality and suitability of the end products of organic waste recovery. It was found that, the municipal waste contained primary and secondary pathogens. The average amount of water extractable nutrients, such as, Nitrate was 147 mg/L, Phosphorous 107.5 mg/L, Magnesium 155.5 mg/L, Calcium 797.5 mg/L, Aluminium 18 mg/L and chloride 120 mg/L. The waste storage containers were not standardized and many of the household storage containers were in poor condition. It was also found that, 65% of the respondents stored their municipal

waste in the kitchen, bathroom and in the balcony. Rubbish was crudely dumped around communal bins. Numerous unauthorized dumpsites were created by residents. Domestic rubbish and bulky waste were the most visible pollutants at the illegal dumping grounds. Improper dumping of solid waste created ideal breeding place for insects. The frequencies of waste collection in almost all the stations were not fixed. It was found that, male respondents were generally more willing to sort their household waste. The study found that people with high education have more knowledge on source reduction and recycling. This because they have high environmental awareness but their rate of participation is low. Although female were also found to support waste recycling and reduction, the intensity of support was more among male respondents. It was found that, waste minimization programs in Pantai Dalam should include deeper community participation. The municipal waste collection service was far below the expectations of the community served. Sorting of municipal waste for resource recovery was an informal activity at the disposal site. Public opinion was seemingly left out in the decision-making process. The cost of waste management increased as the waste generated increased.

Local authorities need to identify actions needed by waste management authorities to provide a waste management infrastructure. In future, the lack of effective and efficient solid waste management system will result in the degradation of Pantai Dalam's urban environment.