CHAPTER I

INTRODUCTION

The present socio-economic development satisfies most people basic public service needs. However, there are still socio- economic issues, which affect people security and quality of life, e.g. traffic, crime and environmental problems. In terms of environment problems, one of the most important problems is the solid waste management.

Pollution Control Department (2005) reported that during the year 2003-2004 the solid waste generated was 14.6 million tons of which 3.1 million tons (21% of the total volume) could be recycled. The solid waste volume in 2004 increased by more than 0.2 million tons. Only in Bangkok municipal area the amount of solid waste was 9,356 tons per day, and in Pattaya was 12,500 tons per day and Tambon Administration Organization area was 18,100 tons per day.

Municipal solid waste, which is made up of the everyday waste produced by households and businesses, makes up 67 percent of the total waste generation, while non-hazardous waste produced by industries accounts for 27 percent. The remainder of the waste, though produced in lower volumes, is potentially more dangerous due to its hazardous or infectious properties. This includes infectious waste from hospitals and hazardous waste produced by industries and communities, including households and small businesses such as gas stations.

Bangkok and the vicinity including Bangkok, Pathum Thani, Nonthaburi, Samut Sakhon and Samut Prakan produce 30 percent of the municipal solid waste, 40 percent of the infectious waste, and 43 percent of the industrial waste in the country. In the rest of the country, waste generating is more dispersed with larger production in the more populated and industrialized provinces such as Songkhla, Nakhon Ratchasima, Chon Buri and Chiang Mai.

Future growth of solid waste generation depends upon the population growth, consumption, recycling and reuse in the country. With the current rate of growth in population and consumption, 17 million tons of waste will need to be disposed in 2010. This could reach as

high as 20 million tons if recycling and reuse rates remain constant and consumption levels grow rapidly enough to increase per capita solid waste generation by 50 percent over this period.

If recycle and reuse increased from the current level of 11 percent to 25 percent, future growth in waste generation could be significantly curtailed; this would nearly stabilize or decrease waste generation in the short term (Pollution Control Department, 2005).

Problem Statement

The solid waste problem is more of increasing in volume of waste. Many organizations especially governmental organizations had realized this problem and plan to solve it with careful by separation of waste.

The volume of solid wastes in Bangkok Metropolis shows an increasing trend and predictions are that the generation of solid waste will increase to 16,020 tons per day in 2010. The Pollution Control Department could not manage all solid waste; thus, there was an accumulation of solid waste which became a direct consequence of life. Heaps of solid waste with improper storage could lead to the breeding of epidemic plague and create public nuisances. Moreover, it also deteriorates environmental quality causing air and water pollution as well as it creates unpleasant view. To minimize the quantity of solid waste and prevent environmental problems, Bangkok Metropolis Administration spent lots of money in hiring staff, providing and maintaining equipment in waste collection; about 1.4 billion baht in 1999 was spent towards this effort.

Since it was the end-of-pipe solution, the amount of solid waste did not decrease. Although BMA spent a lot of money, it was not enough to solve the problem. To solve the problem, BMA promoted the solid waste separation before disposal as an answer to the problem (Public Cleaning Department, 1999).

Kasetsart University, Bangkhen Campus is a waste generator that is also confronted with waste volume increasing problem. In 2004, the amount of waste in Kasetsart University was 6.4

tons per day, increase of 1 ton per day from 2002 (Vehicle, Building and Physical Plant Division, 2005).

The important group who can help reduce the waste volume increasing problem is sanitation workers. They collect waste all day and discard them in places that the Gardening and Cleaning Sub Division recommends. There are 37 waste collecting places around the Kasetsart University such as female dormitory, Faculty of Humanities, Faculty of Agriculture, Central Canteen1, etc.

The sanitation workers' main responsibilities are to collect waste and discard them. If they collect waste with well managed separation before disposal then waste disposal transport could be more efficient, saving cost for collection, transportation and disposal. And, most importantly they can help to reduce waste volume. Therefore, sanitation workers must have knowledge and awareness of waste separation management.

Objectives of the Study

1. To explain the demographics of the Kasetsart University sanitation workers at Bangkhen Campus.

2. To find out level of knowledge on solid waste separation management of the sanitation workers.

3. To describe media exposure of the Kasetsart University sanitation workers at Bangkhen Campus.

4. To examine level of awareness on solid waste separation management of the sanitation workers.

5. To determine the relationship between demographics of the Kasetsart University sanitation workers and awareness of solid waste separation management.

6. To examine the relationship between level of knowledge of the Kasetsart University sanitation workers and awareness of solid waste separation management.

7. To determine the relationship between Kasetsart University media exposure of the sanitation workers and awareness of solid waste separation management.

Expected Results

Finding of this study would serve as a guideline for the Vehicle, Building and Physical Plant Division of Kasetsart University when formulating policy and plan for solid waste separation management of the university at Bangkhen Campus.

Scope of the Study

This study was focused on solid waste generated in Kasetsart University, Bangkhen Campus. The respondents were all the sanitation workers in 13 faculties of Kasetsart University (permanent sanitation workers, temporary sanitation workers and outsourcing company sanitation workers).

Definition of Terms

Awareness refers to condition of being aware state of solid waste separation management. It was separated into 2 groups; performance and comprehension.

Knowledge refers to the state or fact of knowing and understanding of solid waste separation. It was separated into 5 groups; meaning of solid waste, type of solid waste, source of solid waste, method to get rid of solid waste and benefit on get rid of solid waste in a correct way.

Solid waste refers to all form and shape of waste generated in Kasetsart University (Bangkhen Campus).

Solid waste separation management refers to any activity that is related to solid waste dividing or splitting into biodegradable waste and non-biodegradable waste.

Biodegradable waste refers to organic waste in Kasetsart University such as leftover food, vegetables, fruits and leaves from the garden.

Non-biodegradable waste refers to recyclable waste, toxic waste and soiled waste in Kasetsart University such as plastics, paper, glass, spray cans, batteries and sanitary pads.

Sanitation workers refer to all workers that work in cleanliness of the 13 faculties at Kasetsart University, Bangkhen Campus only. They included all permanent workers, temporary workers and outsource cleaning company workers.

Length of working experience as sanitation worker refers to number of years working as sanitation worker at Kasetsart University.

Type of employment refers to status of employment; permanent sanitation worker, temporary sanitation worker or outsourcing company sanitation worker.

Kasersart University Media Exposure refers to media that expose or representation only in Kasetsart University, Bangkhen Campus. They included public relations media documents, superior/boss, teacher and colleague.