

CHAPTER 1

INTRODUCTION

1.0 PREAMBLE

With the world heading towards technological advancement since the start of the Industrial Revolution, many problems termed as environmental pollution have been steadily increasing. Although the world has become aware of these environmental problems since 1970's, there is much more to be done to overcome these issues.

The modern day measurement of development and modernization relates much to industrial development without much consideration to the environmental factors. However, the environmental awareness amongst the general public especially with the rise in environmental pollution issues, has increased. Thus, institutions of higher learning and research centers including governmental agencies have embarked on studies to reduce the impacts arising from human activities on the environment.

In a regional scale, Malaysia has its own legislative requirements to protect its environment through policies and laws. One of the main tools of environmental protection in this country is the Environmental Quality Act, 1974. There are many regulations under this law which relate to air, water, soil and noise pollution.

The Vision 2020 which aims for Malaysia to become a industrialized nation by the year 2020, has generated constructional and manufacturing activities by the public and private sectors. To complement the new development, rapid transportation networks has been opened to link the city with the suburban and rural areas of the country. A good transportation network is necessary for development as it serves to transport goods and increases the mobility of the people.

The transportation networks pass through various types of landuses, including residential areas and create traffic noise problems. In a report by the Road Transport Department (JPJ), up to the year 1990, there has been 4.8 million motored vehicles on the roads in Malaysia. This figure has since increased at a high rate especially in the past few years when the economy was booming in Malaysia and most household could own at least one car.

Awareness of noise pollution is increasing in this country with the increase in the level of education and exposure to environmental issues. A study by the Department of Environment (DOE) from 1986 to 1992, showed 165 complaints regarding noise which includes noise from traffic, construction, industries and others. Table 1.1 shows complaints made against noise from the years 1986 to 1993 (DOE, 1993). Bugliarello (1970), found in his study that traffic noise was the biggest contributor of community noise pollution.

or as a minimum, a detractor from the quality of life, has been slow in coming due to several reasons as mentioned in the following:

1. Noise, defined as unwanted sound, is subjective. What is considered noise by one listener may be considered desirable by another.
2. Noise has a short decay time and thus does not remain in the environment for extended periods as do air and water pollutants.
3. The physiological and psychological effects of noise on humans are often subtle and insidious appearing so gradually that it becomes difficult to associate cause with effect.
4. The typical citizen is proud of the nation's technological progress and is generally happy with the things that technology delivers, such as rapid transportation. Technological advances have been associated with increase in environmental noise, and large segments of the population have tended to accept the additional noise as part of the price of progress.

1.1 OBJECTIVES OF THE STUDY

1. The study will provide data on current noise levels on highways, urban and suburban areas and whether it meets with the regulatory guidelines.
2. To compare traffic volume and traffic noise levels between urban and suburban areas.
3. To compare noise induced hearing loss caused by exposure to traffic noise, between the urban and suburban residents.
4. To determine the significance of noise barriers in attenuating traffic noise, by comparing noise levels before and after the barrier.

Table 1.1 : Complaints against Noise Pollution In Malaysia between 1986 to 1993

	1986	1987	1988	1989	1990	1991	1992	1993
Airport	10	9	11	14	10	1	0	0
Vehicles	14	18	15	15	14	1	15	3
Construction	1	2	6	1	8	7	35	19
Commercial	20	38	33	40	31	3	21	20
Engineering	0	0	0	0	0	0	35	29
Industries	40	22	49	47	30	73	65	67
Others	0	0	0	0	0	0	13	27
Total	75	89	114	107	93	89	184	165

Source : Department Of Environment, 1993.