

1.0 INTRODUCTION

1.1 Introduction

Presently, the awareness towards the importance of preserving scarce natural resources has been raised significantly, due to the rapid degradation of the world environment. Actions to preserve these valuable resources are being taken by various governmental and non-governmental organizations for the sake of the next generation.

Throughout the world, various programs have been formulated and large sums of money have been spent for the purpose of preserving the natural environment. However, governments have to be realistic in its implementation of such programs. This is because preservation of the environment is one of many considerations in the planning of a country's economy.

Putting too much focus on environment preservation may result in an imbalance within a country's economy as it diverts important distribution of resources from efforts such as urban development and industrialization. Therefore, in order to ensure that policy makers make the correct and most informed decision when balancing consideration for preserving the environment with others economic considerations, proper valuation of these programs must be made.

The question that arises here is: what is the price of natural environment and on what basis should the value be made.

Generally speaking, the natural environment is a non-market product which could lead to market failure if it is ignored from the decision making process. Traditionally, valuation of the natural environment is made to measure the willingness to pay of consumers for its *consumption* (or non consumption on this matter). This measure equates the willingness to pay (WTP) value as being equal to the value of natural environment. The basis for this measure is human preference (Yeo, 1998).

Beginning from the early 20th century, environmental economists have developed and proposed several methods on the pricing of the natural environment based on WTP. Examples of such methods are the Travel Cost Method (TCM) and the Contingent Valuation Method (CVM). For the purpose of this study, the TCM method was selected over other methods. This method was selected over others due to the inherent weaknesses within the other methods. This will be discussed further in section 3.1 of the study. This study will look more deeply on the use of TCM for the valuation of preservation programs.

1.2 Scope of study

Due to the success of the Rio Conference, the developing countries are now putting a greater emphasis on the implementation of environmental preservation programs. However, these programs are still short of reaching the desired goal of creating a truly sustainable economy for these countries due to resource constraints. This is because the governments of developing countries, with its already limited resources, have to deal with various more pressing socio economic problems such as poverty, unemployment and economic inequality.

To reduce the burden carried by the government towards the environment, the common solution has been to shift some of the responsibility to the private sector. This is done mainly through the privatisation of these preservation programs. This study looks at how governments can effectively value its preservation programs before the programs are privatised. Proper valuation will ensure that these programs are successfully privatised with all parties benefiting from it.

In this study, the researcher seeks to value the Taman Pertanian Malaysia¹ (MAP) preservation program using the TCM method. This is done by the researcher through the construction of the demand pattern among Malaysian citizens for this preservation program. This estimated value could then be used as a basis for its privatisation and to further expand conservation and preservation efforts.

¹Malaysian Agriculture Park (MAP)

1.3 Objective

The main objective of this study is to provide a framework on the pricing policy made by the MAP. The study will look at whether the visitation price set by MAP is reasonable and to what extent, the set price is able to support the cost of maintaining the park. The question here is: how much is the consumer willing to pay for the preservation programs?

The consumer's willingness to pay is determined by the consumer surplus per visit derived. The higher the charge made to the visitors, the lower the consumer surplus will be. This in turn will reduce the number of visitations or could even lead to zero visitations. It is important to note that the value of consumer surplus is a measure of the user's value of the site only and does not necessarily measure the site's environmental or intrinsic value.

At the same time, the study also attempts to derive the individual's consumer demand curve on MAP. MAP is used as a representation or proxy for other preservation programs utilizing the agro-forestry concept.

1.4 Methodology

Information for this study was obtained through a questionnaire that was distributed among the visitors of MAP. An evaluation on the economic impact and consumer surplus done through TCM is highly believed to be the most appropriate method to study the concept of this park because it involves a large number of visitors (Hanley and Spash, 1993). Information obtained through the questionnaire was analysed to derive the consumer surplus per visit. The data, is analysed by using SPSS² and TSP³ software, is presented in chapter 5.

1.5 Limitations

As in any other studies conducted, limitations are inevitable. The whole study involved the process of research planning, literature review, field surveys, methodology construction, questionnaire design, pilot survey, data collection and analysis, and finally presentation of research report. Time and budget constraints are the main limitations as well as ensuring a comprehensive and sufficient sample size for a meaningful study. This study will concentrate on the Travel Cost Method (TCM) aimed at eliciting the visitors' benefit from the MAP.

² Statistical Package of Social Science

³ Econometric Views, MicroTSP for Windows version 1.0

1.6 Structure of paper

This paper is structured into six main chapters beginning with an introduction about the research. After discussing the scope of study, objective, methodology and limitations, the study will be followed by the background information of the MAP in the second chapter.

For the third chapter, it provides the literature review on the particular methods widely used in environmental valuation. The fourth chapter explains the methodology of the study. The outcome of the study will be shown in the fifth chapter and the last chapter covers the conclusion and recommendations for future research.