

# **WILLINGNESS TO PAY IN KUBAH NATIONAL PARK AND MATANG WILDLIFE CENTRE: A CONTINGENT VALUATION METHOD**

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## **ABSTRACT**

National Park is an important component in the protected area system, and plays a key role in the tourism industry, precisely through ecotourism. Since its inception, the national park concept has been defined in different ways, but it is often connected with the idea of conservation and preservation of the nature and its ecosystems. Having the challenges in the determination of the value (price) of the non-market goods and services, non-market valuation techniques such as Contingent Valuation Method and Choice Experiment have been developed to cater the issues in valuing environmental goods. This study seeks to study on the association of ecotourism as a segment of tourism in Malaysia. However, the scope of this study is limited to the valuation of ecotourism of NPs in Malaysia, particularly in Kubah National Park, Sarawak. Data were obtained using questionnaires from face-to face interviews. A sample of 618 respondents, comprising of visitors and non-visitors (Kuching residents) were involved in the study.

**Keywords:** Willingness to Pay; Kubah National Park; Ecotourism; Contingent Valuation Method; Entrance Fees.

## **1. INTRODUCTION**

Economies have been long found to benefit from natural resources. Typically, natural resources have been extracted for its benefits (such as mining) as well as developed for its containing (such as agriculture). Natural resources such as rivers, lakes, wetlands, forest or national parks (NPs) produce a great variety of goods and services such as water, air, fish, timber, recreation and etc. In the economic theory, these goods are commonly labelled as public goods. Public goods are available to all in a non-exclusive and non-rivalry basis as additional individuals may benefit from the good at zero marginal costs (Snyder & Nicholson, 2005).

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In an economy, a market works with the equilibrium of the demand and supply functions of goods and services. Under a perfectly competitive market, resources are allocated or distributed efficiently. Thus, the public goods' characteristics make it difficult for the market to work ordinarily in an economic market. The value of the public goods or environmental goods and services is not readily available compared to private goods and services. These goods and services are generally provided outside the market system and do not exhibit prices. In other words, they do not have market values. The absence of such values for the non-market goods and services may lead to the inefficient allocation of natural resources. Having the challenges in the determination of the value (price) of the non-market goods and services, non-market valuation techniques have been developed to cater the issues in valuing environmental goods. These techniques have been developed and utilized in estimating and valuing the monetary values for the non-market goods and services (Davis, 1963; Bishop & Herbelein, 1979).

Kubah National Park (KNP) provides a good illustration of a public good or environmental resource. The tourism activities in the park have impacted the ecosystem surrounds. Environmental resources are important in promoting the tourism activities in the park. For instance, conservation of species and ecosystem at the NP would help in maintaining the value of its environmental resources. Valuation techniques such as the Contingent Valuation Method (CVM) and Choice Modelling (CM) approaches assist in the valuing the value or price of public goods (Mitchell & Carson, 1989).

NPs may suit best ecotourism activities and create great economic impacts to the local community as well as enhancing the national income. The rising popularity of national parks as recreational purposes helps to boost the national economic growth of nations around the world. However, the establishment of national parks itself does not guarantee protection for natural abundance of the protected areas, but instead it relies heavily on the management effectiveness of the protected area authority.

Currently, the fact of the rise in both domestic and foreign tourist visiting natural areas is not supported with any official statistics. There are no separately compiled data on the total number of receipts and arrivals of nature tourists or ecotourists in Malaysia. The numbers are very difficult to assess. According to the National Ecotourism Plan (1996), it is impossible to produce good figures on the number of ecotourists in the world, in Malaysia, or in any other country. This is partly because each country's and each organization's understanding differs as to what ecotourism is. It is tough to measure out only ecotourism activities as many people may combine a visit to a natural area with a business trip. If visitors enjoy natural areas or local cultures, they may be called ecotourists while others may not.

## **2. LITERATURE REVIEW**

### ***2.1. Ecotourism in Malaysia***

Malaysia offers a various range of natural and cultural resources that could turn tourism into a highly valuable economic activity. The millions years old of tropical rainforests cover 60% of the land mass. The country is boasting with at least 15, 000 of flowering plants, 286 species of mammals, 150, 000 of invertebrates and 4,000 species of fishes, in addition to the countless

micro-organism (Malaysia Tourism Promotion Board, 2008). Malaysia's reputation as a premiere country ecotourism destination is further supported by the achievement to be listed as one of the twelve mega-biodiversity countries in the world. "Mega-biodiversity countries" is a term used to refer to the world's top biodiversity-rich countries in the world. To qualify as a mega-biodiversity country, a country must have at least 5000 of the world's plants as endemics.

Vasanth (2005) asserted that ecotourism could be labelled as the fastest growing form of tourism in Malaysia and it contributes to almost 10% of the country's tourism revenue (as cited in Jaafar & Maideen, 2012). In Malaysia, the promotion of tourism and ecotourism activities involves a number of institutions such as federal and states government, private sectors as well as several non-governmental organizations (NGOs). The federal government through the Ministry of Tourism (formerly known as MOCAT) undertakes the tasks to plan, implement and coordinate strategic policies. Meanwhile, Tourism Malaysia (formerly known as TDC), a federal statutory body, is involved in the marketing and promoting tourism activities as well as assisting the ministry relevant measures and programs in the Malaysian tourism industry.

NPs are among important places that offer ecotourism destinations in Sarawak and play an important role in biodiversity conservation and protection in the State. The idea of 'national park' has been accepted in Sarawak as early in the 1950s and could be seen by the passing of the National Park Ordinance in 1956. The ordinance was to provide for constitution, maintenance and control of NPs in the Sarawak's state. A Board of Trustees called The Sarawak's National Park Trustees was formed to control and manage the national parks (Hazebroek & Morshidi, 2000).

NPs are one of the most importance to the economics of Sarawak (Hazebroek & Morshidi, 2000). A spectacular biodiversity of the natural environment could be experienced in these areas. Although Sarawak's NPs are established to protect these unique biodiversity, they also become the main attractions for tourists to Sarawak (Tisen, 2008). Like the rest of the developing countries, tourism plays a significant role in Sarawak's economy by attracting foreign exchange from the number of the tourists to the State. However, in order for Sarawak being competitive, she has to focus on the products that are unique to the State. It appears that the State's government is currently promoting culture, adventure and nature tourism as a part of the tourism strategy. Each of these aspects is in some ways integrated within the Sarawak's total protected areas system, which are established mainly for the protection of native flora and fauna (Tisen, 2008).

## **2.2. Contingent Valuation Method and Willingness to Pay**

Contingent valuation method (CVM) is categorized as a stated preference method as rather than inferring values from the actual choices (revealed preference methods). It asks people directly to state the values. It involves in asking people directly (surveys) on how much they would be willing to pay (WTP) for specific environmental services. In some cases, it is called willingness to accept (WTA); as to give up specific environmental resources. This method is inspired from the awareness of the importance of the benefits that people could obtain from the environmental resources, together with the realization for the need to include the costs and

benefits of non-market goods and services in estimating values (Venkatachalam, 2004). CVM could be used to estimate economic values for all types of ecosystem services, which include both use value and non-use value (Beukering et al., 2007). It is the most widely used method in measuring non-use value.

This method is called 'contingent' valuation as people in the related surveys are asked to state the amount of they are WTP on a hypothetical scenario and description of the environmental goods and services. It is also referred as the 'passive use value' as it does not necessarily involve of market purchases or direct participation. Public goods may be one of a good example of non-use value or the passive use value. For example, public goods such as environmental resources could not be supported in the economic market, although they offer substantial benefits to the public (Costanza et al., 1998). These public goods cover from the basic function of a biodiversified ecosystem, to the enjoyment of a scenic view or a wilderness experience or merely knowing and appreciating the existence of *orang utans* or whales.

### **2.3. Kubah National Park**

As Sarawak emphasizes on tourism, Kubah National Park (KNP) is one of the most suitable should offer ecotourism. KNP is situated in the Southwest of Sarawak. It is one of the most accessible national parks in Sarawak. The park covers an area of 2,230 hectares. This rainforest area is a home to some of Sarawak's endangered wildlife and plant life. On the west side of the park is the Matang Wildlife Centre (MWC), which was established in 1998. KNP is located about 22 kilometers from the west of Sarawak's capital city, Kuching. It is one of the most accessible national parks in Sarawak. Awarded with amazing flora and fauna and surrounded by mainly mixed dipterocarp forest and fresh, clean air, ecotourism is all set for the visitors to delight in. KNP is internationally recognized as one of the important sites in the world (WWF Malaysia, 1998).

NPs are among important places that offer ecotourism destinations in Sarawak and play an important role in biodiversity conservation and protection in the State. The increasing trend in the yearly statistics to KNP proves that the park is becoming a significant ecotourism spot in Sarawak. From a number of less than 4,000 visitors in 2003, the visitors grow to more than 5, 000 visitors every year with the following years and continue to show a positive annual increment. In 2011, the park recorded the highest number of visitors since it is open to the public. It is expected that more visitors would come to the park in the following years (Table 1).

Although the number of visitors is low compared to other favorite NPs in Sarawak (such as Bako NP), it is still considered as a high figure based on park's size and its carrying capacity. An increasing number of visitor's record to the park create challenges in managing the park. The park's management will need to ensure that the facilities provided are in good condition and services offered are best to cater the visitors need. Besides, the management authority would also need to ensure that the main objectives to protect and conserve the park's ecosystem and biodiversity are being supported at the same time.

**Table 1:** Number of Visitors to Kubah National Park and Matang Wildlife Centre

Year	KNP		MWC		Total		Grand total
	Domestic	Foreigner	Domestic	Foreigner	Domestic	Foreigner	
2003	3,914	433	23,828	1,231	28,175	1,664	29,839
2004	4,436	796	22,544	1,297	27,776	2,093	29,869
2005	4,436	823	16,077	3,696	21,336	4,519	25,855
2006	4,673	864	14,106	1,916	19,643	2,780	22,423
2007	4,095	993	15,347	2,979	20,435	3,972	24,407
2008	5,664	1,115	12,914	2,406	19,693	3,521	23,214
2009	5,138	1,349	11,741	2,012	18,228	3,361	21,589
2010	6,720	1,477	20,307	2,565	28,504	4,042	32,546
2011	6,647	2,047	29,590	5,556	38,284	7,603	45,887
2012	9,686	5,931	19,735	3,180	35,352	9,111	44,463
2013	7,260	2,787	20,695	3,236	30,742	6,023	36,765

*Source:* Sarawak Forestry Corporation (2014).

All of the visitors must register at the park's HQ before being allowed to enter the park. There is a minimal entrance fee for all NPs in Sarawak, including KNP. Permits can be obtained at the park's HQ or at the entrance of MWC. A permit obtained from Kubah could also be used to enter MWC and vice versa. All fees paid cover both Kubah and MWC directly. Table 2 displays the current charges available at KNP. The charges are discriminated between the local and international visitors.

**Table 2:** Entrance Fees at Kubah National Park

Entrance Fees	
<i>Foreigner</i>	
a. Adult	➤ RM20 per person
b. Disabled person	➤ RM10 per person
c. Children (between 6 and 18 years old)	➤ RM7 per person
d. Children (6 years and below)	➤ Free
<i>Local</i>	
a. Adult	➤ RM10 per person
b. Senior/Disabled person	➤ RM5 per person
c. Children (between 6 and 18 years old)	➤ RM3 per person
d. Children 6yrs & below	➤ Free

### 3. DATA AND METHODOLOGY

#### 3.1. Data Collection

A questionnaire was designed to gain the information on WTP of the study area. The survey instrument was chosen as it encourages high response rates. A total of 670 questionnaires was being distributed to the respondents, comprising of visitors and non-visitors. The on-site interviews (visitors) were conducted at two different locations that include of KNP's

headquarter and the MWC's Information Centre. Both park's HQ and MWC's information center located at the entrance of KNP and MWC respectively, and were selected as they offered suitable places to conduct face-to-face interviews. All visitors of both locations have to register and pay the entrance fees at the entrance booth of the park or center. The visitors would also need to exit using the same entrance and this helped the interviewer to identify potential respondents. Meanwhile, the personal interviews for the non-visitors (Kuching residents) were conducted by two enumerators at several selected housing areas in Kuching city. The questionnaire was divided into four sections: (i) sociodemographic profiles; (ii) attitudinal information on the park's roles and functions; (iii) characteristics of paying; and (iv) choice experiment. Thus, this paper will only describe on the first three sections of the questionnaire. The profile comprises sociodemographic characteristics of the respondents such as gender, age group, employment status, education level, level of monthly income and nationality.

The second section asked a set of attitudinal questions in order to capture their attitude and perception towards the roles and functions of KNP. Twenty items with a 5-point Likert scale were provided to measure the roles and functions of a National Park. In this question, five choices were given for every item where the choices reflect the degree of agreement for each respondent on the given statements. In order to interpret the total responses of all respondents for every statement in the question, a weighted mean scale was used. Weighted mean is used for the interpretation of the Likert scale as it denote the significance of each quantity to the average. The results for each statement must be such a low score reflects an unfavorable response and a high score reflects a favorable response. The interpretation scores from the respondents' responses to each item over a five point scale were such as; '0.00 – 1.00' for strongly disagree, '1.01 – 2.00' for disagree, '2.01 – 3.00' for neutral, '3.01 – 4.00' for mildly agree and '4.01 – 5.00' for strongly agree. The last section discusses the estimation of WTP of the respondent by using single bounded CVM by utilizing the logit regression model.

## **4. RESULTS AND DISCUSSION**

### **4.1. Sociodemographics Profile**

The descriptive results provide for both visitors and non-visitors for comparison, as well as an overall summary of the total respondents. A description of the respondents' profile is shown in Table 3. Of the 303 visitors sampled near KNP, the respondents are represented almost equally in both gender categories; where 49.8% and 50.2% were male and female, respectively. Similarly, the 315 non-visitors depict an almost equal in the gender ratio as well with 50.5% of male and 49.5% female involved in the survey. For the survey in KNP, it was observed that the most of the visitors were likely to come with their partners and family and this led to the equal share for both genders. Meanwhile, for the household survey, the interviewers were instructed to interview adults over 18 years old who was employed and received a monthly income during the interview's session. This could be the primary respondent who first agreed to the interview, but in the case that this person was not working or do not receive any salary, another person in the household could become the employed respondent. Furthermore, the interviewers were instructed that a maximum of 5% of their household's interviews could be done in households that did not have any individuals with permanent job or a fixed monthly income, but received money from doing part time job at home such as sewing or babysitting.

Age is a categorical variable in the survey. It is divided into six age groups. They refer to age starting from 18 years and the maximum was greater than 65 years old. Respondents under 18 years are not covered and thus, the generalization of this study is only valid for the adult population aged more than 18 years. The age group of '26 to 35 years old' set up the largest proportion of the visitors' sample with 38.6% (117 respondents), while 'more than 65 years old' has the smallest percentage with 0.7% (2 respondent). Likewise the visitor's sample, the age group of '26 to 35 years old' constitutes the highest proportion with 162 respondents (51.4%), followed by '36 to 46 years old' with 22.9% of the total non-visitor's sample. It could be seen that the visitors also constitute of a higher percentage (18.5%) for the age group of above than 46 years old compared to the non-visitor's sample (11.2%). From the interviewers' observation, most of the visitors were foreigners and retirees. On the other hand, most of the non-visitors who agreed to participate willingly came from the middle age group. The older age group seemed to refuse or uninterested to participate.

Education captures the highest level of formal education attained by the respondents. At the lowest education category, denoted by 'did not go to school', the respondents are reported of not receiving any formal studies. All of the visitors indicated that they have at least attended primary school, with almost half; 48.5% of them having obtained undergraduate degree, 28.1% has obtained secondary school and 23.1% had a postgraduate degree. This is slightly different as compared to the non-visitors who responded mostly in both secondary school and undergraduate degree (45.4% and 46.3%, respectively). The non-visitors also recorded fewer percentage in postgraduate degree holder with a percentage of 6.3%, compared to the visitors with 23.1% postgraduate degree holder. This could be explained by the fact that the visitor's sample included international or foreign tourists (65.0% of the visitor's sample) whose countries are likely more developed than Malaysia, where the number of educated population is likely to be higher than in Malaysia.

The respondents' employment status is an important variable as it is highly linked to their level of education and income. It is a variable that denotes the employment status held by the respondents. Typically, a higher educational level would likely to exhibit a better employment level and higher monthly income, which leads to a higher propensity to pay for the protection of conservation and management attributes in KNP. Both visitors and non-visitors were taken across all four employment status that reflect their socioeconomic status. The highest percentage that covers 88.8% and 94.0% of visitors and non-visitors, respectively, were recorded to be employed (at the time of survey). Only a small segment of both samples was not working or seeking for work as well as retired. This is because of the interviewers were instructed to ensure that the number of respondents who were unemployed to be minimized by avoiding to distribute questionnaires to students and individuals below 18 years old as they were more likely do not work and exhibit no income.

The level of total monthly income was recategorized into four income groups such as; 'low' for income less than RM3,000, 'medium' for income between RM3,001 and RM6,000, 'high' for income between RM6,001 and RM9,000 and 'very high' for income of more than RM9,000. Results show that both visitors and non-visitors are taken across all four income levels in Table 3. However, majority of the non-visitors fall within the low and medium income group

(66.3% and 30.5%, respectively). Whilst visitors show a larger percentage in high (13.9%) and very high (25.4%) income group as in comparison with the non-visitors for the same income group. This may be because of the visitor's sample included foreign tourists whose income were relatively higher due to higher currency exchange rate compared to the Malaysian Ringgit (RM).

#### **4.2. Attitudinal Information towards the Roles and Functions of KNP**

The percentage and weighted mean for the twenty statements for NPs' roles and functions is presented in Table 4. For the visitors, over 80% of respondents either mildly or strongly agreed with eight statements (*item a, b, c, d, e, f, h and i*) out of the twenty statements. These eight statements were highly related to the protection of natural biodiversity, as well as research and learning activities. However, the non-visitors added up three more statements (*item k, l and r*) to the list that comprise about 80% and more samples responded to mildly or strongly agreed. This suggests that both visitors and non-visitors had a very positive attitude towards the roles and functions of National Parks.

#### **4.3. Characteristics of Paying**

In a CVM analysis, the amount of the bid value is considered one an important variable in explaining the response to the bid question. The responses to the bid levels act as the basis of the analysis under this section. The CV data were analyzed using the logit analysis to examine the responses given to the bid questions put to respondents. Hosmer and Lemeshow (1989) pointed out that the logit analysis is appropriate in situations where the dependent variable is dichotomous. Buckland *et al.* (1996) added that logit analysis is a 'natural way' to deal with dichotomous dependent variable. The respondents were offered a 'Yes' and 'No' answer, which are coded as 'Yes=1' and 'No=0' in the discrete choice of CVM. A total of 303 and 315 questionnaires were distributed to the visitors and non-visitors, respectively.

Table 5 demonstrates the respondent's probability of WTP towards improvement in the park's management and conservation operation. Most of the visitors (57.8%) and less than half (45.1%) of the non-visitors stated a 'Yes' answer, which specifies they are willing to pay and agree for the increment in the entrance fees. On the contrary, about 42.2% and 54.9% of the visitors and non-visitors, respectively, rejected the idea of for the improvement in the management and conservation operation and refused to pay more for it. It could also be seen that the visitors depicted a higher percentage in accepting the increment in the entrance fees and supporting for the improvement compared to the non-visitors. In developing the CVM model, respondents were asked whether they are willing to pay for the conservation and management operation at hypothetical prices. In this CVM study, the respondents were given four groups of bidding prices (in percent terms).



**Table 3:** Sociodemographics Profile for Overall Sample

Variable		Visitors (n = 303)		Non-visitors (n = 315)		Total (n = 618)	
		Frequency	(%)	Frequency	(%)	Frequency	(%)
Gender	Male	151	49.8	156	50.5	307	49.7
	Female	152	50.2	159	49.5	311	50.3
Age group	18 – 25 years old	42	13.9	46	14.6	88	14.2
	26 – 35 years old	117	38.6	162	51.4	279	45.1
	36 – 45 years old	88	29.0	72	22.9	160	25.9
	46 – 55 years old	48	15.8	32	10.2	80	12.9
	56 – 65 years old	6	2.0	3	1.0	9	1.5
	More than 65 years old	2	0.7	-	-	2	0.3
Education level	Primary school	1	0.3	6	1.9	7	1.1
	Secondary school	85	28.1	143	45.4	228	36.9
	Undergraduate degree	147	48.5	146	46.3	293	47.4
	Postgraduate degree	70	23.1	20	6.3	90	14.6
Working status	Employed	269	88.8	296	94.0	565	91.4
	Unemployed	12	4.0	11	3.5	23	3.7
	Retired	18	5.9	4	1.3	22	3.6
	Other	4	1.3	4	1.3	8	1.3
Total monthly income	< RM3,000 (Low)	116	38.3	209	66.3	325	52.6
	RM3,000-RM6,000 (Medium)	68	22.4	96	30.5	164	26.5
	RM6,001-RM9,000 (High)	42	13.9	10	3.2	52	8.4
	> RM9,000 (Very high)	77	25.4	-	-	77	12.5
Nationality	Local (Malaysian)	106	35.0	315	100.0	106	17.2
	Foreigner	197	65.0	-	-	512	82.8

Table 6 shows the visitor's and non-visitor's responses to four groups of bidding price used in the survey. The bidding prices were set up based on percentages of the current entrance fees to the park. Currently, the entrance fees are MYR10 for Malaysian (domestic respondents) and MYR20 for the foreigner (international respondents). The first bidding price caters for 30% increment of the entrance fees (RM13 for Malaysian and RM26 for foreigner), 50% increment (RM15 for Malaysian and RM30 for foreigner), 70% increment (RM17 for Malaysian and RM34 for foreigner) and 90% increment (RM19 for Malaysian and RM38 for foreigner).

Based on the table, the percentages for both visitors and non-visitors decrease as the bidding prices increased. In other words, the percentage to reject is higher as the bidding prices increase. It could be seen that 59.7% and 75.5% of the visitors and non-visitors, respectively, rejected the highest bid price (90% of increment of the current entrance fees) and only 40.3% (visitors) and 25.5% (non-visitors) were willing to pay the offered amount for the improvement in the parks' management and conservation operation. Non-visitors show higher percentages in rejecting higher entrance fees in all four bidding prices compared to the visitors.

**Table 4:** Descriptive Statistics for Kubah National Parks' Roles and Functions

Statements	% of Visitors		Mean	% of Non-Visitors		Mean
	MA	SA		MA	SA	
	a. NPs are to protect endangered species of flora, fauna and wildlife habitats.	38	61	4.6	40	58.6
b. NPs are places for protecting the natural environment and wildlife.	39	60	4.6	39	56.2	4.5
c. NPs are places to protect the scenic beauty of nature.	41	59	4.6	37	54.1	4.4
d. Protecting the natural environment and wildlife should be the first priority of NPs.	42	58	4.6	40	58.6	4.6
e. NPs are places for learning about nature.	41	58	4.6	41	57.9	4.6
f. NPs function to preserve biological diversity.	41	58	4.6	43	53.8	4.5
g. NPs are tourist destinations.	18	5.8	2.8	24	30.5	3.6
h. NPs are places for scientific research and monitoring.	40	45	4.3	40	45.9	4.3
i. NPs are places to be protected for the enjoyment of future generation.	42	52	4.4	45	47.3	4.4
j. NPs help to reduce global warming.	16	6.1	2.6	19	9.2	2.8
k. NPs are reserves of natural resources for future use.	44	22	3.8	48	41.4	4.3
l. NPs are places for recreational activities.	47	20	3.8	50	40.1	4.3
m. NPs provide economic benefits.	25	11	3.1	23	11.3	3.2
n. NPs are places for protecting cultural and historical heritage.	35	10	3.3	40	16.8	3.7
o. Visiting NPs can enhance people's love to the country.	19	4.8	2.9	19	4.8	2.9
p. NPs function as places for spiritual fulfillment.	34	5.4	3.2	20	3.8	2.9
q. NPs are places for people's enjoyment.	49	23	3.9	42	27.7	3.9
r. NPs are places for all living things to exist.	47	23	3.9	43	43.8	4.3
s. NPs function as place of socializing.	14	2.7	2.7	14	2.7	2.4
t. NPs are places for commercial development of natural resources.	3.1	-	1.9	9.2	3.8	2.1

Notes: SD, D, N, A and SA refer to strongly disagree, disagree, neutral, agree and strongly agree, respectively.

**Table 5:** Respondent's Responses on Probability of WTP

Response	Frequency	Percent (%)
<i>Visitors</i>		
Yes	175	57.8
No	128	42.2
<b>Total</b>	<b>303</b>	<b>100.0</b>
<i>Non Visitors</i>		
Yes	142	45.1
No	173	54.9
<b>Total</b>	<b>315</b>	<b>100.0</b>

**Table 6:** Respondents' Responses to Offered Prices

		WTP		
		No (0)	Yes (1)	Total
<i>Visitors</i>				
Bid Price (%)	30%	26.9%	73.1%	78
	50%	29.3%	70.7%	75
	70%	53.4%	46.6%	73
	90%	59.7%	40.3%	77
	<b>Total</b>			<b>303</b>
<i>Non-visitors</i>				
Bid Price (%)	30%	30.4%	69.6%	79
	50%	45.6%	54.4%	79
	70%	68.8%	31.2%	77
	90%	75.5%	25.5%	80
	<b>Total</b>			<b>315</b>

#### 4.4. Mean Value of WTP

This study revealed that visitors' mean WTP for an entrance permit was 71.74%, which revealed for RM17.17 for the Malaysian and RM34.35 for the international visitors. The findings also discovered that as for the non-visitors, the WTP is slightly lower compared to the visitors. The mean value of WTP for the non-visitor is at 15.29% (RM15.29).

**Table 7:** Mean Value of WTP

Respondents	Entrance Permit (RM)	
Visitor (Mean = 71.74%)	Malaysian	17.17
	Foreigner	34.35
Non-visitor (Mean = 52.93%)	Malaysian	15.29

## 5. CONCLUSIONS

The CVM has emerged as a practical approach in measuring the values of virtually anything. The diversity of the value categories and valuation methods created gives an opportunity to consider the strengths and weaknesses of the CVM approach as a method for estimating the demand for and the values associated with environmental resources, as well as policies and programs. Additionally, the information obtained from the CVM exercise originated from the actual market behavior. The information gathered comes from the stated preferences of the respondents. It is a key element in estimating best results of the values of the goods and services, where it is relatively easy to identify the values in discrete units. Respondents could understand the values offered to them with the assistance of the well-designed hypothetical market.

This study found evidence that both visitors and non-visitors are willing to pay more than the current entrance fee charges, which is RM10 for the Malaysian respondents and RM20 for the foreigners. In a nutshell, WTP could be utilized as a tool for revising pricing policies in ecotourism sites, such as NPs. Lemon and Gregersen (1996) asserted that an optimal pricing strategy should a combination of policy objectives and information gathered from visitors. Thus, by using the information obtained in this study, three alternatives for revising the entrance fee charges are proposed such as;

- (i) To maintain status quo option for both Malaysian (RM10) and international visitors (RM20). This option is obviously economically inefficient and lead to inefficient pricing policy. Moreover, it has been described in the previous section that both Malaysian and international visitors are willing to pay higher entrance fee charges.
- (ii) To maintain status quo for the Malaysian visitors, but on the other hand to increase the fees for international visitors. By employing this option will increase KNP's revenue. However, this option will worsen the discrimination issue that already has been existed in the first place.
- (iii) To increase entrance fee charges to all visitors, regardless of their origin. This option is obviously would generate maximize revenue, where and efficient pricing policy is could be achieved.

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