Evaluating Ecotourism for the Establishment of Fraser's Hill State Park

Abdul-Rahim Abdul Samad, Andi-Arfahaini Andi Arnis, Safikah Najihah Idris

School of Business and Economics, Institute of Tropical Agriculture & Food Security (ITAFoS),
Universiti Putra Malaysia, Serdang, Selangor, Malaysia
Corresponding Author Email: abdrahim_as@upm.edu.my

Abstract
Fraser's Hill is known as a tourist destination as it is situated in the Raub District of Pahang in the Titiwangsa Range region. However, the threat of commercial development activities has disrupted the ecosystem of the forests within Fraser's Hill Forest Complex (FHFC) and has been concerning differ-ent community groups, especially the locals. Thus, the objectives of this paper are to assess the evaluation of ecotourism in FHFC by using Contingent Valuation Method (CVM) to identify the appropriate price level of people's willingness to pay (WTP) for conservation fees and to find out the feasibility to continue with the suggestion for the establishment of FHFC as a State Park in Malaysia. The result shows that the public is willing to pay as much as RM3.60 per person for the conservation fee of FHFC and the local community's willingness to pay is higher compared to the public which is RM3.90 per person. For the overall respondents, the total willingness to pay is equal to RM3.70 per person. In the survey for the establishment of Fraser's Hill State Park, more than 70% of the respondent are agreeable and stated that as a good idea for the future development of FHFC.
Keywords: Evaluating Ecotourism, Contingent Valuation Method, Willingness to Pay, Fraser's Hill, State Park

Introduction
In the 20th century, Fraser's Hill Forest Complex (FHFC) first attracted the British council's attention whereby, FHFC was developed into a hill station for the purpose of weekend activities and vacation spots for European residents. After 1957, the abandoned heritage architectural elements remain until this day. Since then, ecotourism acts one of its major economies. Through the Ninth Malaysia Plan (2006-2010), Malaysia has continued to enhance and promote ecotourism as outlined in the National Ecotourism Plan. The main objective is to ensure equal growth and sustainable development, without depriving the location and as well as the nature-based destination itself. In terms of FHFC's attraction, the places are known as one of the highland attractions in Malaysia, other than for ecotourism activities. However, Fraser Hill's

attraction and its beauty have not been utilized for the purpose of ecotourism places. According to the Raub District Local Plan (2003-2015) the major problems of this occurred are due to small numbers of tourist arrivals, lack of ecotourism activities, integrated management of resources, and lack of promotional campaigns to welcome tourists.

FHFC also is the main water basin providing water for major rivers that flow into Sungai Pahang which area encompassed 29,300 km2. According to the Department of Statistics in 2010, there are around 1,000 people live within Fraser's Hill Town Board. With a large forest ecosystem and biodiversity, FHFC has been attracting local and foreign tourists to enjoy ecotourism at FHFC. The main tourism attraction is bird watching and other potential ecotourism activities such as jungle trekking, camping, and river rafting (Department of Statistic Malaysia, 2010). Apart from that, the land within FHFC is also exploited by the people living there and people from outside of FHFC. The activities are including logging, mining, and agriculture as well as build a mini hydro dam at the river.

In case of no prevention is taken, the FHFC ecosystem will degrade over time without further counter-measure, or at a certain point, the damage might be irreversible, and Malaysia will lose one of its gems. To preserve the forest complex, the government needs to enhance their effort to establish Fraser hills as a State Park. This is important as the status of a State Park will protect the best of Forest Hills natural heritage including its stunning landscapes, extraordinary wildlife, and majestic forests. As an added value, State Park will easily attract visitors annually due to the enhancement of the facility in the State Park itself. In the first view, the establishment of a State Park could bring the benefit of protecting biodiversity. However, in other valuable views, the establishment of a State Park shall deliver economic, social, and health benefits to visitors, especially Malaysian people.

According to Tourism Pahang Malaysia (2020), the number of tourist arrival has decreased by 1.72% in the year 2019 compared with tourist arrival in 2018. Without further study to embark on the highest protection towards FHFC, it is not possible that the forest will be facing the decline stage. As Fraser's Hill looks like not been well perceived by the locals and foreign tourists in recent years, there is an initiative called Persatuan Alam dan Warisan Bukit Fraser (PAWBF). The organization is lobbying for the hill station in Pahang to be gazette as a national heritage site to protect it against further development.

Thus, this paper aims to value ecotourism through Contingent Valuation Method (CVM) to propose Fraser Hill as a State Park. This paper will value ecotourism by estimating the appropriate price level for the willingness to pay conservation fees, to have a better ecotourism assessment as well to propose policy recommendations for the establishment of FHFC as a State Park in Malaysia in hope to give insight into Malaysian willingness to pay for conservation fee especially in visiting Fraser Hills. This paper also might help to attract many investors to invest in FHFC development and preservation of FHFC. Finally, it would help to attract Pahang's state government to establish the FHFC as State Park as an investment.

Literature Review

This section, it will review how the CVM approach is used to calculate the value of ecosystem services and the items used in past studies in evaluating ecosystem services provided by FHFC. CVM is considered one of the most promising methods to value public goods and environmental products (Mitchell & Carson, 1989; Pearce & Turner, 1990). According to Abdul Rahim et al (2009), CVM is the only technique that can measure non-use value in an environmental economic valuation. Estimating WTP values using the CVM technique was established by Shackley and Dixon in the year 2000 (Shackley & Dixon, 2000). The advantage

of CVM itself can become prominent through its application towards the issue of valuing natural commodities which are not directly traded into the market (Mitchell & Carson, 1989). Specifically, there are three important concepts that researchers need to concern in conducting CVM survey for conservation purposes. It is consisting of WTP, conservation fee, and CVM itself.

Conservation towards the environment is the protection, preservation, management, or restoration of natural environments and the ecological communities that inhabit them. It is generally held to include the management of human use of natural resources for current public benefits and sustainable social and economic utilization. The act of conserving includes the prevention of injury, decay, waste, or loss, which leads to the preservation and conservation of wildlife and human rights. Official supervision of rivers, forests, and other natural resources to preserve and protect them through prudent management, a district, river, forest, and others under such supervision require careful utilization of a natural resource to prevent the depletion, restoration, and preservation of works of art (Bettinger et al., 2017). In Malaysia, only few published studies on environmental valuation involving Malaysian cases [8]. Most local studies have applied the TCM and CVM to estimate the benefits of natural-based recreation. Based on studies done by Zaiton (2002), through a CVM study on Turtle Conservation at Rantau Abang Turtle Sanctuary (RATS), Terengganu, the researcher discovered the WTP mean value using the logit technique towards three different groups of respondents; MYR10.02 for residents, MYR107.11 for RATS's visitors, and MYR61.93 for tourists. The factors that influenced willingness to pay for turtle conservation for groups A and B were bid, monthly income, and age (Zaiton, 2002).

Through a study of Paya Indah Wetlands using Dichotomous Choice CVM, a study done to estimate non-use values resulted that the non-use values of the Paya Indah wetlands accrued to urban non-user households in Selangor range from RM 28 to RM 31 annually (Jamal & Shahariah, 2003).

In another study by Puan (2005), who conducted a study on environmental attitudes and WTP for the conservation of Fraser's Hill, most of the respondents were revealed to have a positive attitude towards the conservation on habitat for the bird population. Whilst the bird conservation value in Fraser's Hill was MYR30.33 for visitors and MYR 12.25 for residents annually. In a case study of Bako national park, Kuching Sarawak by Affizah et al (2006) the median WTP for the conservation of outdoor recreational areas was MYR7.76 per person and MYR5.823 million to MYR6.672 million was the present value of this place. The study is using DC CVM, logit, and probit model. The conservation value on living heritage of Penang Island, Malaysia also shows that the single dichotomous contingent valuation method (SDCV) was applied to evaluate WTP for the conservation of the inner George Town living heritage. The WTP is MYR94.50 as a once-off contribution towards conservation (Chan, 2009). A recent study was done in 2019 on the conservation of mangroves in Kuala Perlis, Malaysia. This study used the method CVM to achieve the objectives for their paper. The findings revealed that bid price, education level, and marital status all had a significant impact on fishermen's WTP. It also demonstrates that socio-demographic characteristics influenced respondents' willingness to pay for nature conservation (Zaiton et al., 2019).

Furthermore, another study is conducted by Hassin et al (2020), aims to observe local communities' willingness to pay for the conservation of ecotourism resources at Gelam Forest, Kelantan, Malaysia. Variables used are bid price, education, and income. The result shows that bid price, income, and education are significant towards WTP for ecotourism resources conservation. This study also shows that the average for the public's WTP is RM4.20. Another

study was done in the same year to determine the worth of Malaysia's Sultan Ismail Petra Ecosystem Protection Park (Pergau Lake) focusing on non' willingness to pay (WTP). The CVM method was employed to estimate the economic value through face-to-face interviews. Results show that bid price, government allocation budget, and importance of environmental policy are significant towards WTP (Mamat et al., 2020).

Besides, the study analyses the economic value of Borneo orangutans by collecting an approximate price of willingness to pay (WTP) from visitors and finds the elements influencing the ability to pay for Borneo orangutan conservation in Terengganu's Kemaman Mini Zoo. The Contingent Valuation Method (CVM) was utilized by inquiring about visitors' WTP via a questionnaire. The results reveal that bid price, income, and age all have a significant impact on visitors' WTP. In comparison to the present entrance cost, visitors place a larger value on orangutans and the mini zoo (Kamaludin & Azlina, 2020).

The main purpose for a FHFC status conversion to a State Park was to protect the biodiversity and the beauty of natural resources. In Malaysia, a few other forest reserve areas in Malaysia have been successfully converted into eco-parks. The main difference between an eco-park and a conventional forest reserve area is the legal access of visitors for recreational purposes. In 2017, a study was done has found that entrepreneurship is more developed around the parameters of the study area during their assessment on Gunung Stong State Park. This is explained on how the local community will have benefited greatly from the existence of the eco-park as well as shows the role of Gunung Stong State Park in enhancing the local community to generate more income through sustainable tourism (Sarguna et al., 2017). Other than that, The Royal Belum Forest Reserve was also established as State Park in 2007. The forest area is around 117,500 hectares, a huge size of forest. The permission of running activities in that State Park only limited to a few low-impact activities such as research and educational purpose and recreational tourism. Any harmful activities are totally forbidden in this forest area (Osman et al., 2016). This conversion will ensure the future of Royal Belum State Park.

In another country, the study says that rightly observed convectional forest practices should be improved upon from the current objective of maximum yield towards sustainability. Whereby, sustainability in forestry will have a deeper look at efficient and effective use as well conservation of the forest ecosystem (Crossley & Points, 1998). In 2001, eight National Parks were created in Nigeria including Kanji Lake, Chad Basin, Cross River, Gashaka Gumpti, Old Oyo, Yankari and Okomu the conservation was the primary goal of these parks. Other than that, the development of these State Park also enhances the rural socio-economic through capacity building of support villages, environment, education as well as the development of ecotourism industry. According to Adejumo (2001), the potential for domestic ecotourism stated that the aim of a sustainable State Park system is planning and managing ecological resources at the grass root for the educational, economic, recreational, and environmental benefits of the people without jeopardizing the same benefits for future generations (Adejumo, 2001).

Indeed, ecotourism also was assumed as the second largest source of forestry program funding as stated by FAO in 2004. It is undeniable that funding from ecotourism would be much important for biodiversity conservation and for protected area management. Usually, the yields for ecotourism will come from an entry fee. Malaysia should not be far behind in terms of developing ecotourism places in this country.

Methodology

This paper will use primary data that will be acquired by surveying the local communities and public within December 2020 until January 2021. Total number of respondents are 399 which included 117 respondents from village community in Raub, Pahang that conducted through face-to-face interviews and 282 respondents from visitors that have been experienced in visiting Fraser's Hill that involved in online survey through google form distribution.

The data analysed by using Stata 15. Descriptive analysis was involved mainly in attitudinal and socio-economic questions to determine the profile of respondents interviewed as well as their perception to some questions related to the ecosystem services, the factor that determines the effectiveness of forest conservation and State Park status conversion. The bid numbers are starting from RM2, RM3, RM4, RM5. The respondents need to state yes of WTP according to the bid prices for conservation fee to be counted as valid respondents of saying 'yes' in the result of this study. Respondent with 'No' answer included as the person who not willing to pay for conservation fee. Others who stated is inconsistent fee with the discrete choice amount they agreed to pay will be categorized as invalid bidders. Thus, they were excluded to avoid a discrete lump of probability at zero WTP (Macmillan et al., 2001).

Contingent Valuation Method (CVM)

Contingent Valuation Method (CVM) is used in this paper to reveal the Willingness to Pay (WTP) of people on the ecotourism value in FHFC. The variables used for determinants of willingness to pay (WTP) are shown in Table 1 below.

Table 1

Described variables used for determinants of WTP

Variables	Description
R1	Dependent variable (1= Respondent is willing to pay, 0= Respondent is not willing to pay) with the amount asked of them
BID1	Bid price which are includes four different prices = RM2, RM3, RM4 and RM5
Age	Age of respondent (Year)
Sex	Gender (1= Female, 0=Male)
Edu	Higher education of respondent
Income	Monthly income (RM/month)

Logit regression for this Model executed between the bid price and all socio-demographics variable for all respondent, whereby the model is expressed in equation (1) as below:

$$WTP = 1/\{1 + \exp[-(\alpha + \beta 1 BID1 + \beta 2 AGE + \beta 3 SEX + \beta 4 EDU + \beta 5 INCOME)]\} \quad (1)$$

For the single-bounded logit regression model, the survey data is divided by 3 which are general public, local community as well as combination data for general public and local community. While the mean value are expressed as below:

$$\textbf{Mean WTP} = \frac{\beta_0 + (\sum \beta_2 x_2 + \ldots + \beta_k x_k)}{-\beta_1} \quad (2)$$

Where $\beta 0$ is the estimated constant, $\beta 2, ..., \beta k$ is the estimated parameters of the coefficients, xk is the mean value explanatory variables, and $\beta 1$ is the estimated coefficient on the BID (Macmillan et al., 2001).

Model Formulation

Through the model, it stated that a person would derive utility from two things whereby, in the case of FHFC; environmental quality and money income. For example, we put the variable q as the environmental quality with q = 1 if the quality is maintained and q = 0 if quality is reduced. Meanwhile, income equivalent to Y and other observable attributes such as preferences, age, education, and environmental contribution are represented by vector (Cameron, 1988). Hence, if the quality of Fraser's Hill is in a good condition and maintained, the individual's utility is U1 = U (1, Y; s). However, if the quality is reduced, the utility becomes U0 = U (0, Y; s). The estimation of mean and median WTP was prepared by using the estimated coefficients in the logit models from each of the three models, which is following the model given by (Hanemann, 1984).

Findings

In this paper, 399 respondents were selected to respond to the survey, which comprised of the public and the local community. From the total, almost half of the respondents (70.68%) were public society during the survey period and another 29.32% were from a local community. From the survey, it can be concluded that females are the higher contributor to the survey with 58.6% or 234 respondents. Another, 41.4% are male respondents. The majority of respondents were 26 years with, which also explained the high percentage (56%) of respondents having a university education and professional certification. Most of the respondents are aged between 15 to 24 which comprises 48% of the total respondents, which are mostly bachelor's degree students (57%). Because most of the respondents are university graduates with bachelor's degrees, the income for respondents is RM3000 on average. Table 2 below shows the detail about the socio-economic characteristics of the respondents.

Table 2
Socio-economics characteristics of the respondents

Variable	Respondent's profile	Frequency	Percent (%)
Gender	Male	165	41.35
	Female	234	58.64
Age	15-24 years	192	48.12
	25-34 years	72	18.04
	35-44 years	67	16.79
	45-54 years	20	5.01
	55-64 years	27	6.77
	Above 65	21	5.26
Education	UPSR	2	0.01
	PMR/PT3	7	1.75
	SPM	83	20.8
	STPM	56	14.03
	Bachelor's degree	228	57.14
	Mater Degree	9	2.26
	PHD	8	2
	Professional Certificate	6	1.5
Income	Below RM500	35	8.77
	RM501-RM1000	30	7.52
	RM1001-RM1500	65	16.29
	RM1501-RM2000	43	10.78
	RM2001-2500	57	14.29
	RM2501-RM3000	25	6.27
	RM3001-RM5000	66	16.54
	Above RM5000	78	19.55

Perception toward Ecosystem Services

In this paper, there is also a question related to the importance of protecting ecosystem services. There are three categories of perception which are cleanliness of river, sustainability of forest area, and sustainability of wildlife species. According to the survey, respondents can choose from 1 (not all important) to 7 (extremely important) on the perception questions. Thus, in Table 3 below shows that most of the respondents stated 'extremely important' towards protecting ecosystem services. The results show that the cleanliness of the river is 74.44%, sustainability of forest area and wildlife species are 73.68% and 59.4% respectively. This shows that most of the respondents are knowledgeable about the importance of protecting ecosystem services.

Table 3
Perception toward ecosystems services

Perception	Percentage (%)						
	1	2	3	4	5	6	7
Cleanliness of rivers	0.5	1.5	4.51	1.5	1.75	15.79	74.44
Sustainability of forest area	0.25	2.76	4.01	1.5	2.51	15.29	73.68
Sustainability of wildlife species	0.25	1.5	4.76	5.51	6.27	22.31	59.4

Perception towards the Factors that Determine the Effectiveness of Forest Conservation
Based on Table 4 below, the majority of respondents are agreed that government rules and regulations are important in determining the effectiveness of forest conservation with 59.40% answering extremely important. In some situations, preserving forests should be legally binding to tightly purview the forest environments and to keep maintain the sustainability. Of the perception, awareness campaigns followed with 51.13% and donations with 41.35%.
The awareness campaign also became one of the mandatory tools for forest conservation. Spreading the importance of forest nationwide is must for all to remind society that forest is essential for us. Forests provide humans with oxygen and produce rainfall. Whilst, through donations, we can also make sure the continuous effort of forest conservation. As such, helping the communities-led initiatives to protect forests and wildlife, enhance environmental education and replanting as well as restoration of damaged forests.

Table 4
Factors that determine the Effectiveness of Forest Conservation

Perception	Percentage (%)						
	1	2	3	4	5	6	7
Rules & Regulations	0.25	1.5	4.76	5.51	6.27	22.31	59.4
Awareness Campaign	0.5	2.26	3.26	7.77	9.02	26.07	51.13
Donation	0.75	2.26	4.76	9.27	14.54	27.07	41.35

Estimation Model for General Public
Table 5 below are the profile of respondents in the public category. Most of the respondents were female with 178 respondents and 104 are male. 64.5% comes from respondents with ages around 15-24 with the education level mostly having a bachelor's degree. In terms of income, 71 respondents were under the category of above RM5000 per month.

Table 5
Socio-economics characteristics of general public

Variables	Respondent's profile	Frequency	Percent (%)
Gender	Male	104	36.87
	Female	178	63.12
Age	15-24 years	182	64.54
	25-34 years	55	19.5
	35-44 years	36	12.77
	45-54 years	0	0
	55-64 years	0	0
	Above 65	9	3.19
Education	UPSR	0	0
	PMR/PT3	1	0.35
	SPM	17	6.03
	STPM	41	14.54
	Bachelor Degree	200	70.92
	Mater Degree	9	3.19
	PHD	8	2.84
	Professional Certificate	6	2.13
Income	Below RM500	31	11
	RM501-RM1000	16	5.67
	RM1001-RM1500	31	11
	RM1501-RM2000	20	7.09
	RM2001-2500	23	8.16
	RM2501-RM3000	43	15.25
	RM3001-RM5000	47	16.67
	Above RM5000	71	25.53

Table 6 shows that almost 54% of those interviewed for general public answered yes to the first contingent valuation question, whether they are willing to pay or not. While another 46% were willing to pay, certain amount but not specifically for the conservation program and therefore were excluded from WTP analysis.

Table 6
Respondent response to the probability of WTP: General Public

Answer	Frequency	Percent (%)
No	131	46.45
Yes	151	53.55
Total	282	100

The respondent's response is important to check on the respondent's sensibility to the bid amount given. Based on the result in Table 7 below, as expected the proportion of positive answers goes down as the bid amount goes up. For example, of the RM2 willingness to pay, the percentage is almost 50%, while for a bid price equal to RM5, the percentage goes down to 10.6%. Next is to proceed with an econometrically estimated willingness to pay using the logit command.

Table 7
Respondent response to the bid price of WTP: General Public

Bid Price (RM)	Percent (%)	
	No	Yes
2	0.00	49.67
3	30.53	23.18
4	38.17	16.56
5	31.30	10.60
Total	100.00	100.00

For general public, results in Table 8 below show that only BID1 is significant at 0.01%. The result expressed that BID1 is negatively related to WTP for conservation fee. In this case, a one-percent increase in bid price will reduce the respondent choice of WTP for conservation fee as much as 1.11%.

Table 8
Interaction for logit regression model results: General Public

Variable	Coeff.	Std. error	P-value
Constant	3.701	1.019	0.000
BID1	-1.110***	0.154	0.000
Age	-0.228	0.188	0.225
Sex	0.219	0.297	0.459
Edu	0.029	0.184	0.875
Income	0.063	0.070	0.370

Note: Significance level at $p < 0.05$ (***Significant at 1%, **5% and *10% level)

Meanwhile, the average of WTP for conservation fee is RM3.60 per person. The results is shown in Table 9 below.

Table 9
Average WTP of general public

WTP	Coeff.	Std. error	P-value
R1	3.629	0.352	0.000

Estimation Model for Local Community
For the local community, males are the major respondents with 52.1%. While the female is 47.9%. Most of the respondents are between 35-44 years old and have SPM as their highest education level with an average monthly income of around RM1001-1500. For the respondent's response to the probability of WTP for the local community, 63 person, or 54% answered yes and willing to pay according to the bid price, whilst 54 persons are saying no and put some other fee which is not within the bid price of estimated WTP in this study. The results are shown in Table 10 below.

Table 10
Respondent response to the probability of WTP: Local Community

Answer	Frequency	Percent (%)
No	54	46.15
Yes	63	53.85
Total	117	100

The theory of demand here is the same with the proportion of WTP in local community. Whereby, the higher bid price given, the lower community would be willing to pay. As shown in the Table 11 below, for RM5 bid price, only 17% of the community are willing to pay.

Table 11
Respondent response to the bid price of WTP: Local Community

Bid Price (RM)	Percent (%)	
	No	Yes
3	18.52	42.86
4	75.93	39.68
5	5.56	17.46
Total	100	100

As for local community, results in Table 12 shows that all the dependent variable is significant at least at 5% except for BID1 and income. Sex and education is significant at 0.01%. While age is significant at 0.05%. BID1 has a negative relationship with WTP. If BID1 increase, the possibility of willingness to pay will decrease. Age shows positive relationship. That means, an increase in one-year of age, possibility of WTP will increase by 0.1%.

Table 12
Interaction for logit regression model results of local community

Variable	Coeff.	Std. error	P-value
Constant	1.162	2.139	0.164
BID1	-0.513	0.369	0.370
Age	0.148**	0.165	0.016
Sex	-1.045***	0.436	0.188
Edu	-0.457***	0.347	0.000
Income	0.601	0.169	0.587

Note: Significance level at $p < 0.05$ (***Significant at 1%, **5% and *10% level)

The average WTP for the local community in Table 13 shows that the average WTP is RM3.90 per person.

Table 13
Average WTP of local community

WTP	Coeff.	Std. error	P-value
R1	3.877	1.501	0.01

Estimation Model for General Public and Local Community
The last model would be on the combination of data for general public and local community. Out of 399 respondents, 214 or almost people are willing to pay for conservation fee or almost 54% of the total respondent. While, 185 person not willing to pay for the value of bid price given but to offer on some lower prices below in Table 14 the bid price.

Table 14
Respondent response to the probability of WTP

Answer	Frequency	Percent (%)
No	185	46.37
Yes	214	53.63
Total	399	100

In term of bid prices given starting from RM2 until RM5, mostly people are willing to pay the lowest price for conservation fee of Fraser Hills. In this case, Table 15 shows that 35% of payer's are willing to pay RM2. While 28% for RM3, 2% for RM4 and lastly only 12% are willing to pay for RM5 bid price.

Table 15
Respondent response to the bid price of WTP

Bid Price (RM)	Percent (%)	
	No	Yes
2	0	35.05
3	27.03	28.97
4	49.19	23.36
5	23.78	12.62
Total	100	100

According to Table 16 below, only BID1, is significant at 0.01%. In all model, BID1 is surely will have a negative relationship with WTP. This is proved that whenever the bid price increase, it will hugely affected people's WTP. As for the overall result, an increase of one percent in bid price will reduce people's WTP as much as 1.06%. Whilst income and education have positively related with people's WTP. It means that, an increase of one percent in income and 1 year of age will increase people's WTP.

Table 16
Interaction for logit regression model results of general public and local community

Variable	Coeff.	Std. error	P-value
Constant	3.867	0.136	2.342
BID1	-1.066***	0.089	0.000
Age	0.709	0.231	0.428
Sex	-0.232	0.231	0.316
Edu	-0.116	0.129	0.373
Income	0.115	0.777	0.046

Note: Significance level at $p < 0.05$ (***Significant at 1%, **5% and *10% level)

Estimated WTP for overall model in Table 17 shows that average WTP is almost RM3.68 per person.

Table 17

Average WTP of general public and local community

WTP	Coeff.	Std. error	Pvalue
R1	3.677	0.295	0.0000

Perception towards the Establishments of Frasers Hills as a State Park

In this paper, it is stated that Fraser Hill's attraction has not been fully tapped and contribute to the real capability of attracting tourists. According to the Raub District Local Plan 2003-2015, the main problems includes small numbers of tourist arrivals, lack of ecotourism activities, integrated management of resources and lack of promotional campaign to welcome tourists. Thus, as for the final question, we are able to get the response of the respondent, whether the establishment of FHFC as a State Park is a good idea. This perception rate is important as a start to know the visitor's opinion in protecting Fraser hills value and its nature beauty.

Table 18

Respondent response to establish FHFC as State Park

Answer	Frequency	Percent (%)
No	113	28.32
Yes	286	71.68
Total	399	100

Based on the result in Table 18, it is shows that almost 72% of the respondent agreed with some of them are knowledgeable about the forest area undergone status change into a State Park. Thus, the proposed idea of State Park Status of FHFC is beneficial since the economic value is high and FHFC is in need to be conserved to protect the value it holds now. Until now, entrance fee is never charged to the visitors except for some recreational activities in FHFC. Of the CVM survey, most people are willing to pay for the conservation of FHFC and the payment can be collected through entrance fee.

Conclusion

Fraser's Hill, located in Pahang's Raub District in the Titiwangsa Range area, is a popular tourist attraction. Unfortunately, the risk of commercial development operations disrupting the environment of Fraser's Hill Forest Complex (FHFC) has alarmed several community organizations, particularly locals. Thus, the aims of this paper are to evaluate ecotourism in FHFC using the Contingent Valuation Method (CVM) to determine the appropriate price level of people's willingness to pay (WTP) for conservation fees and to determine the feasibility of pursuing the proposal to establish FHFC as a State Park in Malaysia.

This article uses primary data collected from local communities and the general public between December 2020 and January 2021. The total number of respondents was 399, including 117 from a village community in Raub, Pahang, who participated in face-to-face interviews and 282 from visitors who had previously visited Fraser's Hill, who took part in an online survey using Google Form distribution.

Based on the three questions on the importance of protecting ecosystem services, it's found that event though Fraser Hill is one of the ecotourism attractions in Malaysia, the development plan is not necessary threatened the nature beauty of Fraser Hill. Most of the respondent can value the main ecosystem services in Fraser's Hill by stated that it is extremely important to protect cleanliness of river, sustainability of forest area and sustainability of wildlife species.

In term of what is the most efficient factor in determines the effectiveness of forest conservation, most of respondents stated that it should be under the purview of government through rules and regulations with 59.40% answering extremely important.

As for visitor' WTP (general public and total respondent perspective), results show that bid price (BID1) are the only variable that significant at 5% level of significant. This result is similar with study done by (Mamat et al., 2020; Hassin et al., 2020). Furthermore, for local community perspective shows that visitor's WTP are influenced significantly at 5% by variable age and education level which these results can be supported by others study done by Kamaludin & Azlina (2020); Kamri (2013); Zaiton et al (2019) which the results shows that age and education gave impact on their studies.

Lastly, for average price of WTP among general public, is around RM3.60, whereby RM1.38 differ from the highest bid price in this paper. As the average price of WTP among local community, more than half of respondent are together agreeable to pay for the conservation fee with estimating average price around RM3.90. In comparison with general public, average price of WTP for local community is slightly higher. For the average price of WTP for overall respondents, results shows that people willing to pay to visit and enjoy FHFC is RM3.70 instead of RM5 from the highest bid price. This shows that FHFC is valued by people, which are willingly conserve the ecosystem that exist in FHFC. In case of FHFC is lack of income to accommodate the cost of conserving the forest, ecotourism sector in FHFC may not be sustainable. Thus, it was the biggest hope that the results of this study can attract the attention of Pahang's Government states to further thinking of protecting this forest complex.

Policy Recommendation

The results from this study may help Pahang State Forestry Department and Forestry Department Peninsular Malaysia to formulate relevant and appropriate policy for a recommendation to establish Fraser Hill as a State Park. The related departments need to consider the investment involved, outcome of changes in management and conservation arrangements also how much visitors are willing to pay for these improved scenarios.

In another recommendation, the related department are encouraged to focus on visitor's socio-demographic characteristic together with the factors that might influenced them in valuing WTP. This is important to keep maintain a better management and conservation in the park. Finally, yet importantly, the entrance fee to the park should be change to conservation fee found in this study. This is because the term of conservation will bring more impact on visitor's perception towards the value of FHFC.

This study is able assess the first view of the feasibility of the State Park status of FHFC for ecotourism activity. More than 70% of respondents from Pahang state as well as from another state is agreeable for the status conversion of FHFC as a State Park. The government of Pahang is recommended to view this study as a whole and from various aspect that would include generating more income for ecotourism attraction in Pahang.

The government should not allow any activity that might increase the damage to the natural resources in FHFC as most of the visitors valuing FHFC because of the natural beauty. Low impact activity that would help to increase population income within local community also should be considered. For example, the status of conversion to State Park will enhance more entrepreneurial activity especially when there is a huge competition occurred there like the birdwatching competition. However, this study suggested that there should be more develop studies related to costs and benefits of State Park establishment encouraged at state and national levels.

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