

# The Recreational Benefits of Coral Reefs: 1 A Case Study of Pulau Payar Marine Park, Kedah, Malaysia

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## Abstract

Coral reefs are increasingly recognized as valuable assets in terms of supporting local economies, maintaining national heritage and conserving global biodiversity. Nevertheless, coral reefs are under pressure from a number of threats. In response, resources are being committed to address and minimize the impacts of these pressures on the reefs. Economic valuation studies highlight the monetary values of coral reefs and help to reflect the true value of the related environmental attributes. In so doing they provide important information about sustainable resource use and management.

A case study based on Pulau Payar Marine Park, Kedah, Malaysia, estimated the recreational benefits of the coral reefs at that location. It involved a contingent valuation (CV) study using both face-to-face interviews and self-administrative questionnaires. The willingness to pay (WTP) to access the marine park of visitors to marine park was elicited. In practice, the respondents were asked whether or not they would visit the marine park if an entry fee were charged and what their WTP would be in terms of an entry fee. The study found that 91 per cent of respondents would accept an entrance fee. The average WTP was estimated at RM\$16.00 (US\$4.20). In terms of the tourist numbers recorded during the year of the study, this estimate reflects a potential recreational value of the reefs in the park in the order of RM\$1.48 million (US\$390,000) per year.

This estimate provides an important indication as to the value of recreational benefits from the coral reefs in Pulau Payar Marine Park.

## Introduction

Protected areas are increasingly recognized for the myriad of benefits that they provide. In marine parks, coral reef ecosystems harbor diverse marine resources, such as colorful reef fishes and invertebrate and algal species. The uniqueness of coral reef ecosystems makes them a prime attraction for recreation and nature-based tourism. Coral reefs also perform significant ecological functions, such as providing nursery grounds for fish, protecting coastlines, and storing carbon.

In view of these important values of protected areas, it is crucial to strike a balance between economic development and environmental protection. Fortunately, there is growing emphasis

on exploring win-win situations that balance the conservation of natural resources with their potential to generate economic benefits. Nevertheless, the increasing global tourism demand for natural area experiences (ecotourism), accompanied by increasing natural resource scarcity, pose new challenges in terms of management and policy issues.

The system of marine parks in Malaysia was established in 1989 in recognition of the potential benefits of marine resource protection. However, in order to effectively manage marine parks and provide assured protection, adequate financial resources are needed to enhance institutional strengths and human capacity, provide proper infrastructure and maintain facilities. With pressing social and economic priorities, Govern-

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ment funds for nature conservation are limited. In view of this, options to complement existing Government funding of marine park management need to be explored.

In the past, decisions on natural resource use and management have been based on traditional economic theory, in which only market costs and benefits are considered. Under this system, natural resources are deemed as free and not accounted for in decision-making processes. Valuation of non-marketed goods, in this case, protected areas, can help provide a step towards better-informed decision-making. This requires evaluating natural resources in monetary terms.

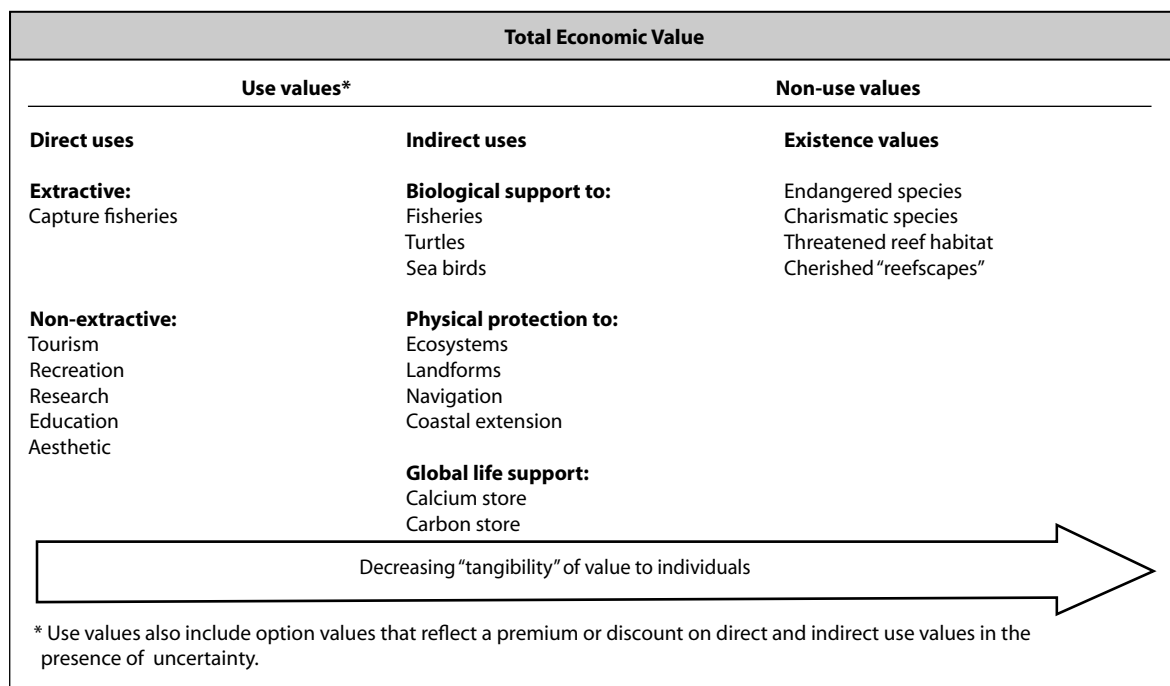
The main objective of this paper is to present the results and lessons learned from an economic valuation case study of Pulau Payar Marine Park that used the contingent valuation method (CVM). The study concentrated on the values of coral reefs in terms of recreational benefits. In this paper, the concept of economic valuation is presented, followed by a brief description of the study site and the methodological framework. The empirical results are then discussed and policy implications explored before conclusions are drawn. The results provide preliminary findings supporting policy research focusing on the development of effective pricing strategies.

## Economic valuation

Economic values refer to how much a particular good or service is worth to people, and is reflected in their willingness to pay (WTP) a monetary price. In the context of this paper, the economic benefits of marine parks are "priced" by attaching monetary values to their attributes. This differs from conventional practice whereby natural resources are considered to be free. Such economic valuation contributes towards informed decision-making by helping reflect the true value of the natural resource, while also raising awareness of the importance of the resource.

The total economic value (TEV) concept is an important component of economic valuation. It incorporates the range of environmental benefits offered by natural resources. The TEV concept has been presented by a number of authors (Pearce and Turner 1990; Aylward and Barbier 1992; Munasinghe and Lutz 1993). Munasinghe and Lutz (1993) present an overview of the concept by providing a table of use and non-use benefits.

The TEV concept applied here is based on the coral reef ecosystem of Pulau Payar Marine Park, adapted from Spurgeon and Aylward (1992) and Munasinghe and Lutz (1993) and illustrated in the figure below.



Source: Adapted from Spurgeon et. al. (1992) and Munasinghe and Lutz (1993).

Figure 1. Total economic value concept applied to Pulau Payar Marine Park

Use values can be divided into direct use values and indirect use values.

Direct use values depend directly on resources for outputs and services. Direct use values are further divided into extractive and non-extractive uses. In this case, extractive use values include benefits from capture fisheries. While, under national legislation, no fishing is permitted within two nautical miles of the marine park, capture fisheries are included here, as fishers are able to catch fish by casting their nets just outside this radius and schools of fish often move outside the coral area.

Non-extractive direct use values include benefits from recreation and ecotourism, research and education. The value of ecotourism and recreation is partly reflected in the revenue they generate. However, the extra benefit from tourism in terms of consumer surplus (CS) – the difference between what people would have been willing to pay for the experience and what they did pay – is not reflected. In an example, Hundloe (1990) found that people were willing to pay AU\$5 million above and beyond what they already pay for reef activities on Australia's Great Barrier Reef.<sup>3</sup> In other words the CS was AU\$5 million.

Indirect use values provide a wide range of important benefits that are less tangible as they are not directly consumed. The provision of biological support for diverse fish populations and marine organisms by coral reefs is an example of an indirect use value. Other important indirect uses include ecological functions and global life support, such as carbon sequestration. In relation to the latter, increasing scientific research has begun to show the importance of coral reefs for carbon storage, and, although the process is yet to be fully understood, Whittaker (1975) has indicated that coral reefs fix more carbon per annum than rainforests.<sup>4</sup> To date, the economic significance of these benefits has yet to be determined; and the fact that they are less tangible and are not observable in existing market structures makes such determination difficult.

Non-use values include benefits that arise without any physical use. There are three types of non-use values – option value, existence value and bequest value. Option value involves the opportunity to

preserve a resource for future use instead of using it at the present time. For example, coral reefs may have yet-to-be-discovered important medicinal properties and ecological functions. The option of preserving these resources could potentially be critical to – and thus have huge value to – human life in the future. Existence value is derived from the knowledge that a particular natural resource or endangered animal is preserved. For example, an individual may never see coral reef fish, but may derive satisfaction from the knowledge that coral reef fish exist. Bequest value is derived from the desire to pass on value to future generations. All three of these values are intangible and difficult to value. Nevertheless, the concept of TEV as discussed above is important for illuminating the benefits that can be derived and that can help in decision-making.

## Study site

The Pulau Payar Marine Park includes four small islands, of which Pulau Payar is the largest and the main tourist area. These islands and surrounding waters constitute one of the few coral reef areas found off the west coast of Peninsular Malaysia that is established for tourists. Tourism is a booming industry in Malaysia. It has been identified as the third largest sector in terms of the country's foreign exchange earnings (Ibrahim 1995).<sup>5</sup> Tourism growth can be seen in the marine park, with the number of visitors increasing from just 1 373 in 1988 to 106 780 in 2000.<sup>6</sup> The majority of tourists to Pulau Payar are day-trippers, as there are no commercial accommodation facilities on the island.

## Permits and conservation fee

The Malaysian Department of Fisheries documents the number and nationality of tourists by issuing visitor permits. Since 1 January 1999, a conservation fee has been imposed on visitors to the marine park. This brings Pulau Payar into line with all marine parks in Malaysia, which charge visitor fees to assist with the maintenance and protection of the parks. The conservation fee charged for adults is RM\$5.00 (US\$1.32) – half this for students, retirees and children. No price differential is made between local and foreign tourists.

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<sup>3</sup> From Spurgeon and Aylward (1992).

<sup>4</sup> *Ibid.*

<sup>5</sup> Quoted in Lim 1996.

<sup>6</sup> Source: Department of Fisheries Malaysia.

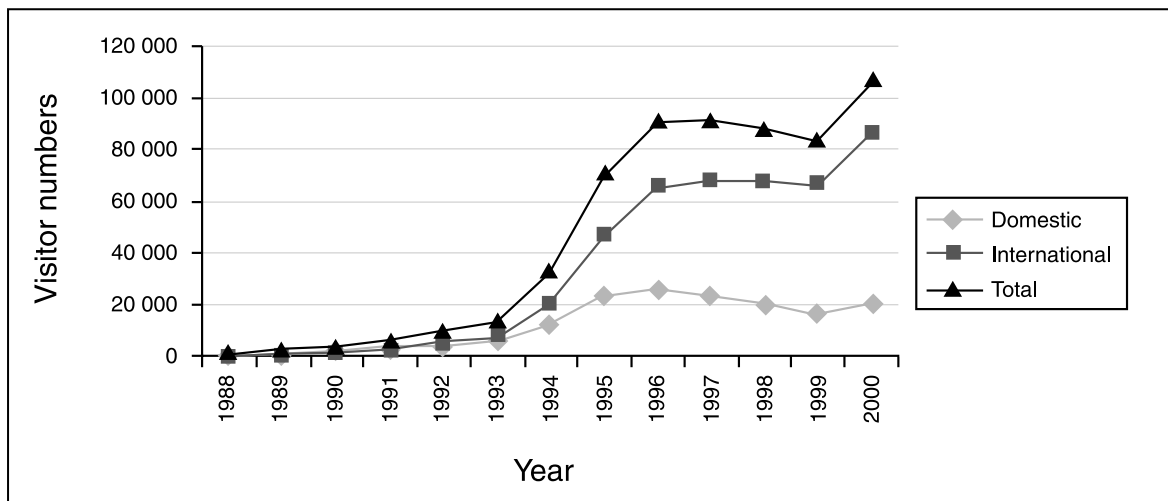


Figure 2. Annual visitor numbers to Pulau Payar Marine Park

## Facilities

There are two main sites at the island. These are the Marine Park Centre area and a 50 m x 15 m floating pontoon that is moored off the beach, south of the Marine Park Centre and known as the Langkawi Coral pontoon. The Marine Park Centre is the main tourist area, occupying a small area of 0.6 ha and a beach approximately 100 m long. Picnic tables and benches are provided at the beach, further limiting space. Two toilets are provided at the Marine Park Centre, and there are two nature trails on Pulau Payar. The Langkawi Coral pontoon can accommodate up to 250 people at one time.

The high number of tourists could potentially threaten the attraction of the marine park. Appropriate measures to lessen this threat are needed. The main problems have been recognized as pollution caused by sewage and solid waste generated by tourists, and direct physical damage caused by tourists while snorkeling and swimming (Lim 1997).

## Method

The contingent valuation method (CVM) was used to estimate the WTP, determined using surveys of tourists. CVM is a means of valuing an environmental good or service where either markets do not exist or market substitutes cannot be found. For these reasons, CVM is widely used to measure existence values, option values, indirect use values and non-use values. CVM questionnaires need to be carefully designed and

well executed in order to increase the likelihood of consistent and valid estimates.

## Questionnaire design

The questionnaire was based on work conducted by Lim (1997),<sup>7</sup> Mourato (1998) and Krug (1997).

A series of rigorous pre-tests were conducted with individual and group respondents. The first focus group concentrated on the structure and valuation components of the questionnaire. The second pre-test focused on the overview of the questionnaire and language flow. A trip to the study site was arranged before the field surveys in order to gain insights and experience according to the actual trip taken by tourists. The questionnaires were pre-tested and revised again after the trip. In order to capture the views of Japanese and Taiwanese tourists and those from Hong Kong, the questionnaire was translated into Japanese and Mandarin.

## Questionnaire outline

The questionnaire includes a short introduction explaining the reason for it. The first section is designed to elicit respondents' background information, reasons for visiting and opinion on the marine park. Follow-up questions on other marine parks in Malaysia and nearby attractions are also asked in order to assess the potential of substitute sites. The next section contains contingent valuation questions in which the attributes of coral reefs in terms of recreational benefits form the hypothetical market good.<sup>8</sup> A

<sup>7</sup> 1009 sample size.

<sup>8</sup> See Appendix 1 for example of the contingent valuation scenario.

description of the marine park and related information in terms of challenges and possible solutions are provided as background information to elicit WTP. This is followed by a section on socioeconomic and background characteristics of the respondents. The final part of the questionnaire contains questions on the questionnaire and interview.

## Field sampling

Sampling was carried out between 26 July and 3 August 1998. Face-to face interviews and self-administrative questionnaires were used at the two main sites. Two university graduates assisted by interviewing respondents. Non-selective sampling, sufficient for an experimental study, was applied at the two sites, with the aim of obtaining the highest possible number of responses.

## Sample size

Completed questionnaires were obtained from 211 respondents.<sup>9</sup> The main challenge was to obtain responses from Taiwanese and Hong Kong tourists. Their tour package allocates only two to three hours to the marine park, with the balance of their time being spent on other nearby islands. This time constraint resulted in the collected

sample not representing the population. In order to minimise this population bias, it would have been necessary to carry out the survey over a longer period of time and at different intervals. In order to minimise the impact of this sample bias, the estimated WTP responses were weighted to reflect the population composition in order to obtain a more representative mean WTP.<sup>10</sup>

## Results

Table 1 shows the sample size in relation to the population.

Table 1 shows that Malaysian visitors represent 28.5 per cent of all visitors to the park (number of visitors tabulated and averaged over three years reflect the changes in visitor composition) but

**Table 1. Proportion of sample versus population size**

Country of origin	Population (Average annual number of visitors, 1995-97)	Sample size
Malaysia	71 912 (28.5%)	18 (7.6%)
Japan	51 377 (20.4%)	103 (43.2%)
Taiwan and Hong Kong	96 215 (38.2%)	66 (27.8%)
Europe	14 396 (5.8%)	30 (12.6%)
Others	17 993 (7.1%)	21 (8.8%)
Total	251 893 (100%)	238 (100%)

Source: Department of Fisheries Malaysia

**Table 2. Socioeconomic characteristics by country of origin**

	Malaysia, n=18	Japan, n=95	Taiwan & HK, n=53	Europe, n=30	Other nationalities, n=21
<b>Demographic variables</b>					
Males (%)					
Mean age (years)	72.2	29.0	45.3	50.0	57.1
Age range (years)	29	29	33	32	36
Education: Primary school (%)	16 – 43	16 – 52	18 – 75	18 – 59	21 – 62
Secondary school (%)	-	1.1	2.6	-	4.8
Professional degree/diploma (%)	33.3	9.5	35.9	10.0	33.3
University (%)	33.3	16.8	17.9	46.7	23.8
University (%)	33.3	72.6	43.6	43.3	38.1
<b>Economic variables</b>					
Employment: Self-employed full-time (%)	22.2	4.5	13.2	13.3	28.6
Employed full-time (%)	55.6	75.3	71.1	66.7	52.4
Employed part-time (%)	5.6	3.4	7.9	10.0	-
Housewife (%)	5.6	4.2	2.6	-	9.5
Student (%)	5.6	10.5	5.3	10.0	9.5
Unemployed (%)	5.6	1.1	-	-	-
Retired (%)	-	-	-	-	-
Income non-response (%)	11.1	21.0	30.2	0.0	0.0
Monthly household income in US\$ after tax (using mid-points of intervals)	1 000	2 894	2 419	6 519	4048
Range in US\$	183 – 2 317	360 – 7 200	728 – 5 100	565 – 16 666	250 – 10 000

<sup>9</sup> 238 questionnaires were collected in total.

<sup>10</sup> See discussion below.

only 7.6 per cent of those sampled. Because of this, the WTP measures were weighted to improve the coverage of the results.

The sample was divided on the basis of country of origin into Malaysia, Japan, Taiwan and Hong Kong, Europe and other countries. Taiwanese and Hong Kong tourists are grouped together as they follow the same travel package to Pulau Payar, and because both responded to the same translated Mandarin questionnaire.<sup>11</sup>

The socioeconomic characteristics presented in Table 2 provide an explanation and insight into the WTP figures offered by respondents. For example, the employment status provide explanation in terms of the WTP figures indicated by respondents.

## Analysis of WTP

In the questionnaire, respondents were asked whether or not they would visit the marine park if an entry fee were charged. Of the total, 91 per cent of the respondents answered “yes” but only if the money collected were to be used exclusively to

to minimise bias in the estimated average WTP. Examples of protest answers are provided in Appendix 3.

As discussed in Section 5, the WTP estimates were weighted in order to get a representative measure. The weighting factor was:

$$\text{WEIGHT} = (\% \text{ in population}) / (\% \text{ in sample})$$

A conservative mean WTP estimate as shown in Table 3 is RM\$16.00.<sup>13</sup> Transposing this figure to the total visitor population would provide an indicative TOTAL annual WTP figure of RM\$1.48 million (US\$390 000).

The mean WTPs for domestic and foreign tourists are shown in Table 4.

From Table 4, it can be seen that, on the whole, foreign tourists seem to be willing to pay more. This may be due to the fact that the entry fee would be a very small proportion of the high travel costs they are already paying to reach the park, whereas for local tourists it would be a much higher proportion. The estimates provided

**Table 3. Statistics of Weighted WTP in Ringgit Malaysia (RM\$)**

	Full sample	Sample without protests	Sample without unusual observations	Sample without protests or unusual observations
Mean	15.10	17.80	13.50	16.00
95% Confidence Interval				
Lower bound	12.10	14.40	10.90	13.20
Upper bound	18.20	21.20	16.00	18.80
Median	8.00	10.00	8.00	10.00
Minimum	0.00	0.00	0.00	0.00
Maximum	100.00	100.00	100.00	100.00
n (valid answers)	209 (199)	190 (180)	199 (189)	181(171)

improve the management of the park. The respondents were also asked to state their maximum WTP to visit the marine park. Answers were obtained using a payment ladder.<sup>12</sup> The results are presented in Table 3.

WTP results are weighted and organised into four different sample groups: full sample, sample without protests, sample without unusual observations and sample without either protests or unusual observations. Protest answers and unusual observations are identified and filtered

**Table 4. WTP of Domestic and Foreign Tourists<sup>14</sup>**

	Domestic tourists (Malaysians)	Foreign tourists
Mean WTP (RM\$)	9.40	19.50
95% Confidence Interval		
Lower bound (RM\$)	4.80	16.10
Upper bound (RM\$)	13.90	22.90
Median (RM\$)	6.00	10.00
Minimum (RM\$)	2.00	0.00
Maximum (RM\$)	30.00	100.00
n (valid answers) <sup>15</sup>	15 (15)	166 (156)

<sup>11</sup> Hong Kong respondents make up 17 per cent of the Taiwan and Hong Kong category.

<sup>12</sup> Appendix 2 provides the example of the payment ladder used to elicit respondents' WTP.

<sup>13</sup> Based on average WTP values of respondents.

<sup>14</sup> The values for domestic tourists are not weighted as it is assumed that each country's sample is representative. In contrast, the values of foreign tourists are weighted because of the unrepresentative sample.

<sup>15</sup> Numbers in brackets shows the number of valid answers.

in Table 4 show the marked differences in WTP between the two groups and suggest that differential pricing may contribute to an effective pricing structure. While a bigger sample size would be needed to make strong assertions on this matter, the available results provide some justification for further exploring a two-tier entry fee system.

However, using 1997 visitor numbers, Table 5 shows that differential pricing would raise a total of RM\$1.54 million compared with the RM\$1.48 million raised with no price differential. This analysis shows that, despite the large difference in WTP between local and foreign park visitors, with the current relatively small number of foreign visitors, there would be no marked difference in the total recreational benefits between two-tier and one-tier pricing.

**Table 5. Potential recreational values with two-tier pricing**

	<b>Domestic tourists (Malaysians)</b>	<b>Foreign tourists</b>
Average WTP values	RM\$9.40	RM\$19.40
Visitor numbers in 1997	23 174	67 993
Potential value (reflected as collection) if fully captured according visitor groups	RM\$217 835	RM\$1 319 064
Total values of local and foreign visitors	RM\$1 536 899	

It should be noted that the WTP figures could be affected by several external factors. For example, the economic downturn in Asia in 1997 could have affected the WTP figures. It could have reduced the WTP figures given by Asian tourists and increased the WTP figures given by other international tourists because of the significant changes in the currency exchange rates. Secondly, tourists could have given WTP figures that they are used to (i.e. entry fees that they face when entering a protected area or park in their own country) rather than a figure that reflected the value to them of Pulau Payar Marine Park. Thirdly, tour operators may affect answers by respondents. (This happened in instances where tour operators tried to influence tourists to state a lower figure or not agree to pay. Another example involved a tour operator telling tourists that entry fees had already been charged in the package.<sup>16</sup>)

<sup>16</sup> These situations occurred with the Taiwan and Hong Kong groups. The observations were noted and some questionnaires were identified as protest answers. This shows the importance of careful execution of questionnaires to ensure minimum bias.

## Discussions and policy implications

Assuming that the mean WTP of RM\$16 can be fully captured, based on the visitor numbers in 1997, approximately RM\$1.48 million could potentially be collected. This substantial amount demonstrates the high value of environmental attributes related to recreation at Pulau Payar Marine Park. The findings show that 91 per cent of respondents are willing to pay entrance fees. The WTP reflects their satisfaction with their visit to the marine park. An important policy finding was that respondents were willing to pay only if the money collected was to be channeled back to improve the management of the park.

Increasing resources by charging entry fees would contribute significantly to solving the problems identified at Pulau Payar Marine Park. They could be used, for example, to install a proper sewage disposal system and/or to establish a strong and effective marine awareness program that would motivate a sense of responsibility and encourage users of fragile natural ecosystems to help preserve such areas, wherever those areas might be.

Entrance or user fees for protected areas are often kept low in order to ensure wide acceptance. It may be sensible to follow this strategy for a user fee at the marine park, until such time as further studies are completed.

Lindberg (1991) discusses justifications for levying multi-tiered entry fees. He points out that “international tourists receive substantial enjoyment from the experience, yet pay low (if any) entrance fees, they do not pay taxes to support the park and do not bear the opportunity costs of not using the resource for agriculture, logging or other activities”. Hence, a multi-tiered structure may be more equitable than the single fee. The notion of differential fees could both satisfy equity issues and increase efficiency.

## Conclusions

Indicative estimates using CVM in this study show considerable benefits associated with recreation values of the coral reef ecosystem at Pulau Payar Marine Park. It is important to note that the figures should be interpreted with caution, as a larger sample may be required for a

more stable and representative estimate. In addition, careful studies need to be conducted and considered individually to learn the implications of entrance fees and benefit sharing if set within an area where communities are stakeholders. Lastly, a CVM approach should incorporate information from the disciplines of ecology, psychology and market research.

This WTP estimation of entry fees shows the potential of natural resources to generate economic benefits that enable continued conservation efforts. The use of valuation techniques could play an important role in the future, when more rigorous studies can be carried out to estimate non-user values, such as the benefits of carbon dioxide absorption by coral reef ecosystems.

This paper contributes to an understanding of the potential role of economic analysis in protected area management. Recommendations for future research for a more rigorous and complete study may include:

- 1) Research on two-tiered entry fees and differential pricing to reflect the values of marine parks.
- 2) Combining the analysis of entrance fee levels and the concept of 'limits of acceptable change' (LAC) to develop policies that minimise damage to the parks while capturing the potential economic benefits.
- 3) Extending the scope of the study to carry out an economic evaluation of the linkages between socioeconomic activities and biodiversity, especially in marine parks where communities are important stakeholders. This could provide some insights into potential mechanisms for benefit sharing.

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### Appendix 1: Contingent valuation scenario

Pulau Payar is the only established clear water coral reef area in the West Coast of Peninsular Malaysia. Pulau Payar continues to attract high number of visitors because of the suitability of its beautiful and unique coral reef environment for activities such as snorkeling, scuba diving and appreciation of its aquatic flora and fauna (including fish feeding and viewing).

Visitor numbers have increased dramatically from 1 300 in 1988 to 90 000 in 1997. This has caused damage to the fragile coral reefs that take many years to build up. The two main causes of damage to the coral reefs in Pulau Payar are:

1. *Careless snorkeling activities by tourists.*
2. *Pollution due to sewage and waste from tourists.*

In order to continue the enjoyment and benefits we get from coral reefs and tourism in Pulau Payar as a whole, actions need to be taken to conserve the corals.

The park managers could help solve the problem by:

1. *Introducing an effective and strong marine awareness education programme so that visitors will be able to learn more about corals and be careful not to harm the corals when snorkeling.*
2. *Installing a proper sewage and solid waste disposal system to reduce pollution.*

These steps need money to be carried out. Presently, no income from the tourism industry is used for the conservation and maintenance of the park.

The park managers could collect money by charging an entry fee that would be used directly to help conserve the marine park in its natural settings. The facilities available at the marine park will remain the same.

Q16) Would you still visit the marine park if an entry fee were charged?

\_\_\_ Yes                      \_\_\_ No go to **Q19 in page 6**



## Appendix 2: Willingness to pay question and payment ladder

Q17) The following table (show table, pg. 6) consists of a list of prices from RM\$0.50 to RM\$100. Ask yourself: "What is the MAXIMUM price that I would be willing to pay to enter the marine park (per entry)?"

➔ (Note: Consider other expenses that you have already paid or will pay for on this trip and remember that you could also spend your money on other things such as visiting other islands nearby or spending more money on souvenirs and on other activities on your whole trip.)

Your willingness to pay for an entry fee will be used to finance:

- A) marine awareness and education programme
- B) installation of a proper sewage and waste disposal system

RM\$ PER ENTRY

- 0.50 \_\_\_\_ Please do not agree to pay if:
- 1.00 \_\_\_\_ 1) you **cannot afford it**
- 1.50 \_\_\_\_ 2) you have more important things
- 2.00 \_\_\_\_ to spend your money on.
- 2.50 \_\_\_\_ 3) you are not sure about being
- 3.00 \_\_\_\_ prepared to pay or not.
- 4.00 \_\_\_\_
- 5.00 \_\_\_\_
- 6.00 \_\_\_\_
- 7.00 \_\_\_\_
- 8.00 \_\_\_\_
- 9.00 \_\_\_\_
- 10.00 \_\_\_\_
- 15.00 \_\_\_\_
- 20.00 \_\_\_\_
- 25.00 \_\_\_\_
- 30.00 \_\_\_\_
- 40.00 \_\_\_\_
- 50.00 \_\_\_\_
- 60.00 \_\_\_\_
- 70.00 \_\_\_\_
- 80.00 \_\_\_\_
- 90.00 \_\_\_\_
- 100.00 \_\_\_\_

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## Appendix 3: Reasons for not being willing to pay and examples of protest answers

The following table lists respondents' reasons for not being willing to pay. The protest answers are marked with \*.

Reasons for not paying	n
Marine parks should be financed by the government*	18
Cannot afford to pay more	3
Rather visit other islands not charging the entry fee	6
The traveling costs to the island is high enough*	2
Tour operator should pay*	3

\*Protest answers

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