Creating a 'Turtle Watching' Niche Market for Turtle Conservation in Sri Lanka

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Abstract

The endangered turtles at the Rekawa Sanctuary in Sri Lanka are under threat due to ongoing illegal activities such as killing turtles for meat, egg collection for sale, and the use of turtle shells to make products for markets. This study estimates the entrance fee that can be charged to visitors for 'turtle watching' to ascertain whether revenues from such fees can be used to compensate fishermen and reduce such illegal activities. We carried out a contingent valuation study at the Rekawa Sanctuary and Bundala and Yala National Parks to examine the foreign visitors' willingness to pay (WTP) for turtle conservation under two different recreational scenarios. The sample size was 450 visitors. Field-level transect walks, group discussions, and direct observations helped us to obtain socio-economic information and data. The findings suggest that a majority (63%) of visitors are willing to pay an entrance fee, which can be used for protecting turtles and improving visitor facilities at Rekawa. The estimated mean WTP per visit for foreign visitors was USD 15.33 (USD 1 = 142 LKR) and USD 19.16 for Scenarios 1 and 2, respectively. The fishing community also confirmed that they were also willing to be involved in 'turtle watching' initiatives proposed in the scenarios. Further, if we implement the scenarios 1 and 2, the Department of Wildlife Conservation can earn LKR 52.82 million and LKR 72.36 million as the revenue respectively. These results, which suggest to create and promote 'turtle watching' niche market for earning revenue can be applied to compensate fishermen and reduce threat on turtles. Further, policy decisions can be taken to re-design entry fees for Rekawa Sanctuary and in deciding how to secure the cooperation of low-income fishermen in turtle conservation.

Keywords: *Conservation, Turtles, Turtle watching, Willingness to pay*

1. Introduction

Marine turtles have been roaming the oceans for about 190 million years, although only seven species are known to be living today. Of these seven, Sri Lanka is host to five species. These turtles regularly nest on sandy beaches in Sri Lanka. The sea turtle is an important key stone species, significant for maintaining marine ecological balance and for monitoring environmental changes (IUCN, 2005; Jin, Indab, Nabangchang, Thuy, Harder and Subade, 2010). For humans, turtles offer an additional benefit in the form of wildlife recreational value.

Rekawa Sanctuary on the southern tip of Sri Lanka is the prime turtle nesting habitat in the country (IUCN, 2005). Thousands of turtles flock to Rekawa Beach every year to lay their eggs and hatch their young ones. The Department of Wildlife Conservation (DWC) has declared this beach a sanctuary in order to facilitate this process of birth and growth. In addition, non-governmental organizations such as the "Turtle Conservation Project" (TCP) have started *in situ* conservation programs in the area. Further, tourism related to turtle-watching is growing in Rekawa. Yet, there are relatively few incentives for villagers, who depend on egg collection and flesh consumption, to participate in conservation. This makes Rekawa an interesting and important region for examining possibilities for conservation through the use of economic incentives.

Our preliminary visits to Rekawa indicated that both local and foreign visitors show little interest in 'turtle-watching' at Rekawa due to the unseemly and, at times, hostile behavior of self-appointed nest protectors drawn from the local community, and the lack of facilities for visitors. Consequently, Rekawa attracts a lower number of visitors despite its close proximity to Yala and Bundala National Parks. Only foreign visitors are willing to pay an entrance fee of LKR 1000.00. Therefore, in the present study only foreign visitors are considered.

In this study, we propose two 'turtle watching' initiatives in terms of scenarios. 'Turtle watching' is a niche tourism market for wildlife lovers. Welfare changes resulting from quality changes in recreational

experiences have been frequently estimated through the use of revealed preference and stated preference valuation methods (Whitehead, Haab and Huang, 2000). The Contingent Valuation Method **(**CVM**) (**Cummings, Harrison and Rutstron, 1995; Mitchell and Carson, 1989**)** is often employed because it enables the estimation of a **(**Hicksian**)** measure of Consumer Surplus **(**CS**)** under circumstances when an environmental quality change is hypothesized or being planned (Mitchell and Carson 1989; Hanemann, Loomis and Kanninen, 1991; Hanemann, 1984).

Several scholars have found economic valuation a useful tool for addressing wildlife management and conservation issues (Gregory, Mendelsohn and Moore, 1989; Hadker, Sharma, David and Muraleedharan, 1997; Loomis and White, 1996; Stevens, Echeverria, Glass, Hager and More, 1991; Tisdell and Xiang, 1998; White, Bennett and Hayes, 2001; Whitehead, 1992), with some estimating demand for endangered species conservation using CVM (Loomis and White, 1996; Jackobsson and Dragun, 1996; Chambers and Whitehead, 2003; Bandara and Tisdell, 2004; Thuy, 2006; Jin, *et al*., 2010; Bandara and Tisdell 2004). They studied the net benefit of saving the Asian elephant in Sri Lanka through a contingent valuation study, which showed that urban residents' WTP for the conservation of elephants in Sri Lanka is sufficient to compensate farmers for the damage caused by elephants. Similarly, Chambers and Whitehead (2003) estimated potential payments for wolf management plan and wolf damage in Minnesota using Contingent Valuation. Thuy (2006), using CVM, estimated that Vietnamese households were, on average, willing to pay USD 2.50 per household for conservation of the Vietnamese Rhinoceros. An important study for our research is Jin *et al.* (2010), who adopted a cross-country perspective to estimate the WTP for marine turtle conservation. Another useful comparative study for us is the work by Feck and Hamann (2013) on turtle conservation in turtle rehabilitation centers in Australia, which showed that visitors to rehabilitation centers were willing to donate annually to sea turtle conservation.

The present study also employs a non-market valuation technique, viz., the CVM, to estimate the benefits of sea turtle conservation in terms of willingness to pay (WTP) which can be used as an entrance fee to Rekawa. In order to understand visitor preferences, we develop two alternative turtle management scenarios. Scenario 1 focuses mainly on improving visitor services at Rekawa, while Scenario 2 focuses on both visitor services and potential conservation initiatives.

2. Objectives

This study seeks**:**

a) to identify the visitors' willingness to pay for 'turtle watching' initiative

b) to explore the potential changes in the number of visitors and revenues under these different recreational scenarios

We consider the possibility of charging an entrance fee in order to see if sufficient revenues can be generated to incentivize local communities to conserve turtles**.** We hope that this information will be useful to coastal managers in developing appropriate turtle conservation strategies.

3. Materials and methods

3.1 WTP Estimation Model

This study employs the CVM to examine changes in demand (or tourists' WTP for 'turtle watching') and therefore in welfare as a result of a proposed change in managing the Rekawa Sanctuary. To estimate the WTP, we follow the estimation approach given in Lopez-Feldman (2012). In this approach, WTP is modeled as a linear function.

$$WTP_i(z_i, u_i) = z_i\beta + u_i \quad (1)$$

Where z_i is a vector of explanatory variables, β is a vector of parameters and u_i is an error term. In our study, following are the explanatory variables:

educ:	Education in number of years
age:	Age of respondents in years
gender:	Respondents' gender (1= male and 0= female)
hhinc:	Household income (USD)
marital:	Marital status (1= married, 0= others)
entow:	Working in tourism or environment-related field (1=yes, 0= no)
turtseen:	Seen turtles (1=yes, 0= no)
nestseen:	Seen turtle nesting (1=yes, 0= no)
site_dum:	Survey site (1=Rekawa, 0=Yala and Bundala)
rekawavi:	Knowledge of Rekawa or visited Rekawa (1=yes, 0= no)
grsize:	Group size

Each individual is offered a single bid value **(t_i)** and is expected to answer yes or no**.** Denote y_i = 1 if the answer is yes and y_i = 0 if the answer is no**.** The individual would answer yes when his/her WTP is greater than the offered bid amount **($WTP_i > t_i$).** The probability of y_i = 1 is a function of the explanatory variables and can be written as**:**

$$\Pr(y_i = 1 | z_i) = \Pr(WTP_i > t_i) \quad (2)$$

$$\Pr(y_i = 1 | z_i) = \Pr(z_i\beta + u_i > t_i)$$
$$\Pr(y_i = 1 | z_i) = \Pr(u_i > t_i - z_i\beta) \quad (3)$$

Researchers commonly use probit and logit models when the dependent variable is binary (Capps and Kramer, 1985; Bishop and Heberlein, 1979; Seller, Stoll, and Chavas, 1985). In this study, the outcome is binary and we apply the probit model for data analysis. Hence, we assume that the error term u_i has a normal distribution $N(0, \sigma^2)$. In this case, Equation (3) can be written as:

$$\Pr(y_i = 1 | z_i) = \Phi\left(\frac{z_i\beta}{\sigma} - \frac{t_i}{\sigma}\right) \quad (4)$$

where Φ (.) denotes the standard cumulative normal distribution function. Note that, in Equation (4), the probit model has t_i in addition to z_i as explanatory variables. There are two ways in which one could estimate this model. The first one is to use Equation (4) and apply maximum likelihood estimation to solve for β and σ. The other option, which we use in this study, is to directly estimate the probit model with z_i and t_i as explanatory variables, which can be estimated in STATA. In this case, we obtain estimates of β/σ and $-1/\sigma$ after estimating the probit model. For the results of probit model, denote $\hat{\alpha} = \hat{\beta}/\hat{\sigma}$ (the vector of coefficients associated to each one of the explanatory variables) and $\hat{\delta} = 1/\hat{\sigma}$ (the coefficient for the variable capturing the amount of bid).

The expected value of WTP can be estimated for individuals with certain characteristics or at the average of explanatory variables as:

$$E(WTP | \tilde{z}) = \frac{\tilde{z}\hat{\alpha}}{\hat{\delta}} \quad (5)$$

where, $\tilde{z}$ is a vector with the values of interest for the explanatory variables.

The estimated number of visitors to Rekawa Sanctuary from each site (Rekawa, Yala and Bundala) under a particular scenario at a proposed bid value is estimated as follows:

$$Est.numberofvisitors = Prob.ofvisitingatproposedfee \times totalnumberofvisitors \ldots\ldots\ldots (6)$$

Then, the total revenue under a particular scenario at a proposed bid value is estimated as follows:

$$Totalrevenue = Numberofvisitors \times Proposedbidvalueasentrancefee \ldots\ldots\ldots\ldots\ldots\ldots (7)$$

The probability of visitation at a proposed fee is computed using the results of the above probit model. The total number of visitors at Rekawa, Yala and Bundala are reported next in subsection 3.2.

3.2 Study Area

The Rekawa Beach, approximately 4 km long and located on the southern coastline of Sri Lanka, was declared a sanctuary in 2006**.** It is visited by five different species of turtles which lay their eggs in the sand every night throughout the year. Rekawa is situated in close proximity to the Yala and Bundala National Parks **(**see Figure 1 for location map**).** According to the visitor statistics maintained by the DWC, Sri Lanka, the three sites together attracted 53,779 foreign visitors**.** Out of the 53,779 foreign visitors, visitors were from Rekawa, Yala and Bundala were 2,465, 48,446 and 2,868, respectively**.**

Figure 1 Location Map of Study Sites

3.3 Data Collection

We obtained the data for the present study from primary as well as secondary sources such as records on visitor arrivals. We collected primary data through on-site and off-site surveys of visitors using a pretested questionnaire. Referring to Yamane (1967), 450 visitors were interviewed as a sample. We considered Rekawa as the on-site area and Yala and Bundala as offsite study sites. The questionnaire includes questions related to the CVM exercise and attempted to measure a user's mean WTP for access to the Rekawa sanctuary under different entrance fees (bid values) and two different management scenarios. Prior to undertaking the main survey, we pre-tested the questionnaire by interviewing twenty visitors under two different scenarios at the Rekawa Sanctuary and the Bundala and Yala National Parks. In addition to the primary questionnaire-based survey, we conducted several discussions with local hoteliers, and boutique and shop owners in order to obtain their views and opinions on implementing tourism initiatives in the Rekawa area. We included in our discussions the existing 'nest protectors' at Rekawa from whom we were able to gather useful information on the type of economic incentive that may mitigate the activities of those who currently pose a threat to turtle conservation. Field-level transects walk, group discussions and direct observations helped us to obtain socio-economic information and data. We also obtained some socio-

economic secondary data from the Grama Niladhari (village level Government Administrative Officer) and Divisional Secretary.

3.4 Payment Vehicle

Under each scenario, we proposed different bid values to visitors and gauged their willingness to accept the bid as the proposed new entry fee for visiting Rekawa. The entrance fee is a realistic measurement of use value as foreign visitors are familiar with paying entrance fees for activities at recreation sites (Lee, 1997). At present, foreigners pay LKR 1000 (or USD 7) at the Rekawa Sanctuary. The entrance fees or bids took four values, i.e., USD 0, 10, 15 and 20, for foreign visitors in our visitor survey based on the results of the preliminary studies. Each respondent received only one offer or opportunity to accept a bid. The bid offer received was randomly made based on the pre-determined range of offers.

3.5 Developing Two Hypothetical Management Scenarios

We consider two alternative turtle tourism management scenarios in this study. Both our scenarios address tourism issues, but one has a special focus on conservation. Scenario 1 focuses mainly on visitor services to be established at Rekawa, while Scenario 2 focuses on both visitor services and conservation initiatives to be established at Rekawa. In Scenario 1, we outline a situation where there are improvements in tourism facilities such as clean toilets and drinking water facility, visitor centres and museum, cafeteria souvenir shops, camp sites and nature guide service. In Scenario 2, in addition to the visitor services and facilities mentioned in the scenario 1, we proposed initiatives such as 'eggs are not collected and turtles are not poached, turtles and their eggs, nests and hatchings are protected by local community'. Both scenarios included economic incentives for the local community based on several discussions with village leaders as well as with the Grama Niladhari, the Divisional Secretary and wildlife officials in the Rekawa area.

4. Results and Discussion

4.1 Regression Results

Table 1 presents the marginal effects and the predicted probability of the dependent variable of the regressions for the two sets of probit models for foreign visitors (Scenarios 1 and 2). The predicted probabilities of the acceptance of the bid value as the entrance fee were 0.594 and 0.897 for foreign visitors under Scenarios 1 and 2, respectively. Therefore, we found higher chances of acceptance of Scenario 2, which combines improvements in recreational facilities with turtle conservation. The variable 'bidv' (Bid variable) is significant at 1 percent ($p < 0.05$) significance level. This means that visitors were less likely willing to pay for higher bids in both Scenarios, which is in line with the demand theory. Under the Scenarios 1 and 2, if we increase the entrance fee by USD 1, the probability of foreign visitors' acceptance decreases by 2.2 percent and 2.8 respectively. In conformity with a priori theoretical expectations, the coefficient on the 'hhinc' (household monthly income) variable is positive and statistically significant at 1 percent ($p < 0.01$) significance level, implying that income is an important factor that increases the WTP for visitor facilities and/or marine turtle conservation. In all two models, the variable 'education' (years of education) is also positive and significant at 1 percent ($p < 0.05$) significance level. Therefore, we believe, if the sanctuary receives visitors who have a good education (numbers of years), their acceptance for Scenarios will increase. The coefficients of variable 'age' are negative, and it could be argued that the visitors are not willing to enjoy the proposed recreational scenarios at Rekawa with increasing the age. Further, variable 'gender' is not significant and it means that the respondents are not willing to pay more under the Scenario 1.

Table 1 Marginal Effects and Predicted Probabilities after Probit Model Regression

Variable	Scenario 1	Scenario 2
	dy/dx	dy/dx
bidv	-0.022***	-0.028***
	(0.007)	(0.007)
age	-0.012*	-0.008
	(0.006)	(0.006)
gender	-0.054	0.019
	(0.111)	(0.061)
maritalstatus	0.073	0.031
	(0.105)	(0.075)
education	0.057**	0.060***
	(0.024)	(0.017)
entow	0.085	0.233***
	(0.120)	(0.067)
hhince	0.0002***	0.0001***
	(0.00007)	(0.00004)
groupsize	-0.016	0.023
	(0.017)	(0.016)
site_dum	0.192	-0.203**
	(0.121)	(0.092)
turtseen	0.024	0.029
	(0.109)	(0.066)
nestseen	0.109	0.131***
	(0.267)	(0.045)
rekawavi	0.483***	0.137***
	(0.074)	(0.048)
Predicted prob. of acceptance of bid (at mean values)	0.594	0.897

(Standard error in parentheses)

We also found that prior visits to Rekawa increased the probability of accepting the bid by foreign visitors of Scenarios 1 and 2 by 48 percent and 13.7 percent respectively. Meanwhile the increase in probability had increased by 13.3 percent and 3.3 percent for local visitors under Scenarios 1 and 2 respectively. For the foreign visitors the variable 'rekavi' (already visited Rekawa) was significant in both scenarios and the variable 'nestseen' (seen turtle nesting) was significant in Scenario 2. The variable 'entow' (working in tourism and environment related field) was also significant for the regressed results in Scenario 2. Therefore, the respondents who had visited Rekawa and seen turtles agreed with the scenarios even at high bid values, because they understood the importance of turtle conservation and of Rekawa as a prime nesting habitat.

4.2 Mean WTP

Based on the probit regression results, we estimated the mean WTP of foreign visitors under two different scenarios. The estimated mean WTP values per visit of foreign visitors were USD 15.33 and USD 19.16 for Scenarios 1 and 2. We found that the mean WTP of foreign visitors was higher for Scenario 2 as compared to Scenario 1, by the USD 4. This suggests that visitors are more interested in the conservation of turtles than in enjoying recreational facilities. Their choice, in addition, may be influenced by their perception that the initiatives mentioned in Scenario 2 would help to solve the problem of turtle survival at Rekawa. Further, we can say that at Rekawa foreign visitors already pay about USD 7 (LKR 1000) and they would like to pay more for improvements.

Jin et al. (2010) found that the mean WTP for turtle conservation in lower income cities such as Davao City in the Philippines and Ho Chi Minh City and Hanoi in Vietnam was around USD 0.30 per month per household. For relatively higher income cities such as Beijing and Bangkok, the mean WTP values of the households were USD 1.28 per month per household and USD 1.08 per month per household, respectively. In our study, foreign visitors were considered and the resulted WTP values were not same as those in Jin et al. (2010). Interestingly, while studies showed that people in developed countries are willing to pay 0.24 percent and 0.08 percent, respectively, of their annual per capita income for specific species such as the spotted owl (Loomis and Ekstrand, 1998) and the gray-blue whale (Bulte and Van-Kooten, 1999), our study showed that local visitors are willing to pay 0.005 percent of their per capita income for turtle conservation.

4.3 Identification of Economic Incentives for Local Community

The total number of families in the Rekawa area (that is, the Grama Niladhari Division of Rekawa West 255) is 280. These households identify fisheries (both lagoon and fresh-water fishing), carpentry, masonry, handicraft production, home garden cultivation, coir product manufacture and tourism as their main sources of livelihood. Out of the total population of 1062, only 160 people work in formal public or private sector jobs. A majority of the people do not have access to basic needs such as drinking water and electricity. An estimated 33 percent population is poor with daily household income of less than LKR 100.

There are six hotels located very close to the Rekawa Beach, some in the 'star' class range, where some local people work as labourers. In the fisheries industry, a few families benefit by lagoon fishing. Members of the local community involved in fishing cannot compete with village-level rich people in fishing because the latter control the fishing activities in the area. In addition, a few (about 17 families) benefit directly from so-called 'nest protecting.' These self-elected 'nest protectors' also steal turtle eggs to meet their daily consumption needs and that of the local community although they rarely engage in poaching turtles. Our field studies showed that some local youth earn up to LKR 1000 per day working as nest protectors while the egg collectors earn up to LKR 300 per day from selling the stolen turtle eggs. Further, though some local and international non-government organizations have obtained funds for turtle conservation purposes, they have not so far established more infrastructure facilities/visitor facilities for 'turtle watching' initiatives. The majority of the population, however, does not have access to work as nest protectors or as guides in the existing 'turtle watching' trade because of the monopoly held by those currently working as nest protectors and guides. Therefore, if we are able to attract more visitors to Rekawa and charge entrance fees, this population may be more likely to find employment in the tourism and turtle conservation sector.

The above description makes it clear that lack of livelihood opportunities is one major reason threatening the survival of marine turtles on the Rekawa Beach. Since the Rekawa Beach as a prime turtle habitat is protected under the Fauna and Flora Protection Ordinance (1937), we propose the following economic incentives to be given to the local community for the purpose of conserving turtles: (i) to streamline and promote 'turtle watching' at Rekawa, and (ii) to draw up a proper incentive/compensation scheme to enable the local community to get involved in turtle conservation. As discussed in the above section, if Scenarios 1 and 2 are implemented, there is likely to be a huge annual revenue increase. Scenario 2 provides both recreational facilities as well as conservation initiatives and could easily make possible the provision of economic incentives to the local community. We estimated the required capital for the establishing the infrastructure from the government sector as LKR 15.5 million, and the recurrent expenditure such as salaries and subsistence for the government officers, vehicle and fuel charges to be LKR 6.50 million and LKR 8.72 million annually for Scenarios 1 and 2 respectively. Compared to the estimated revenue, the required initial capital and recurrent expenditure is very low.

Further, according to Table 2, we find that there is a range of options and maximum achievable revenues under each option. The results provide alternatives to policy makers to design an appropriate entrance fees for the Rekawa Sanctuary. One of the major concerns expressed by the local community was their exclusion from turtle conservation initiatives, a concern shared by administrators, policy makers and community leaders of the area. Given the high level of education and positive attitudes of members of the

local community towards tourism and turtle conservation, they can provide temporary employment opportunities as labour in the construction of infrastructure facilities while more permanent employment can be provided for them in operating visitor facilities and working as qualified interpreters/guides and nest protectors once the turtle watching initiatives are functional.

Since some local-level businesses that are already directly related to 'tourism', impart necessary knowledge and social skills to locals in order to prepare members of the community to take up income-generating roles in turtle conservation and protection. This sort of activity can also be helped by local banks if loan schemes for members of the local community are offered to improve visitor facilities and services. We found that the local level hoteliers, restaurant operators and boutique owners, too, were ready to provide visitor facilities, including accommodation and meal services if the government becomes directly involved in providing tourism-related operations at Rekawa.

Table 2 Estimated Number of Visitors to Rekawa and Revenue under Scenarios 1 and 2

Entry Fee (USD)	Estimated Number of Foreign Visitors	Estimated Revenue (USD)	Estimated Revenue LKR million	Entry Fee (USD)	Estimated Number of Foreign Visitors	Estimated Revenue (USD)	Total Revenue LKR million
Scenario 1				Scenario 2			
0	40267	0	0.00	0	47724	0	0.00
10	30473	304735	43.27	10	40764	407638	57.88
15	24309	364638	51.78	15	33307	499606	70.94
15.33*	24268	372028	52.82	19.16*	26596	509579	72.36
20	18244	364886	51.81	20	18244	364886	51.81

* Mean WTP

Note: USD 1= LKR 142

What this indicates is their belief that government involvement is necessary for the launch and promotion of tourism initiatives because the general public expects the government to give leadership in such initiatives. Some government officials we spoke to also felt that the DWC should become involved in policy making, law enforcement and managing tourism initiatives. However, state intervention from above alone will not be sufficient for this purpose. Under the current legal framework, members of the local community too must be involved in conservation initiatives. It is therefore noteworthy that in the preliminary and individual discussions, the current nest protectors and guides also endorsed the proposals mentioned under Scenario 2.

By allocating a portion of the entry fee to the local community, the government will accomplish the twin objectives of providing employment to members of the local community while ensuring the protection and conservation of marine turtles at the Rekawa Sanctuary. Employing educated youth as guides/interpreters and recruiting young energetic youth as nest protectors and paying them salary or allowance commensurate with their education levels and experience is one way to involve the community, particularly the youth, in turtle watching initiatives and, by extension, in turtle conservation. The state could also encourage private-public partnerships that include local investors. Benefits to the community need not be confined to such direct benefits. Other local income generating possibilities include production of handicrafts, operation of food stalls, provision of sanitation facilities, sale of souvenirs and provision of homestay, and camping opportunities for visitors.

5. Conclusion

In this study, we seek to derive the mean WTP of foreign visitors to visit the marine turtle sanctuary at Rekawa under two Scenarios by way of bid values. This will be a niche tourism market for visitors. While improved visitor services were identified in both Scenarios, Scenario 2, in addition, focuses on turtle conservation. The estimated mean WTP values per person per visit for foreign visitors were USD 15.33 and USD 19.16 for Scenarios 1and 2 respectively. These results indicate that the majority (63%) of

visitors are willing to pay an entrance fee, which would go towards protecting turtles and improving visitor facilities at Rekawa. The results showed that increase in bid value, visitor's education level in years, household income and their involvement in environment or tourism related field showed a significant marginal effect on acceptance of Scenarios.

The study recommends the following policy directions that would help in both turtle conservation and the provision of economic incentives for the local community: (i) streamlining and promoting 'turtle watching' as a niche tourism initiative at Rekawa; (ii) introducing a new fee structure for turtle watching; (iii) proposing a proper incentive/compensation scheme for the local community to get involved in turtle conservation; (iv) establishing a village-level welfare fund using a percentage of the gate collection to improve the basic infrastructure facilities in Rekawa village that would benefit the entire community, thus providing an incentive for everyone in the community to support the initiative. Therefore, the policy makers would be able to get the local community to be involved in turtle conservation through 'turtle watching' tourism. The WTP values recorded for Scenario 2 were considerably higher than that for Scenario 1. This indicates that Scenario 2 could be implemented at Rekawa Sanctuary as a policy decision. If we implement Scenario 2, which carries opportunities for both recreation and turtle conservation, the annual revenue increase would be 2,835 percent (or by LKR 72.36 million) over what it is now. When deciding on a fee-levying policy to protect turtles by providing economic incentives for the local community, policy planners must strike a balance between increase in revenue through entrance fees and the possible reduction in the number of visitors due to the fee. They must also take serious note of the possibility of disturbance to turtle nesting due to high visitation. Thus, while increased numbers of tourists may increase the size of these potential additional funds, the authorities must have in place a proper visitor management mechanism.

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