AN ECONOMIC VALUATION FOR THE RECREATIONAL VALUE OF THE ENVIRONMENT AT SURROUNDING AREA OF THE BELIHULOYA RIVER

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ABSTRACT

The concept of economic valuation of the environment has been expanding for years even before the concept of Adam Smith on land value for economic growth, up to the total economic value including use and nonuse values of environment. The economic value of environment is measured by using deferent valuation techniques. The main objective of this study is to measure economic value of environment at Belihuloya.

The Sample of the study is 100 domestic tourists visited Belihuloya in weekends and holydays of March 2017 by using systematic random sampling. The place used for the study is the Belihuloya surrounding near by the restaurant conducted by the Hotel Corporation in Sri Lanka. The methodology used for the analysis is based on two main environmental valuation techniques of Willingness to pay method and individual travel cost method. Frequencies, crosstabultions, multiple regression models and semi log regression models were used to the analysis.

The study found that the majority of visitors came from the Rathnapura district while the second and the third importance goes to Gampaha and Badulla

respectively. The majority of visitors are relatively young reporting the mean age of visitors as 28. Unmarried males are leading among visitors. Urban residents are keener on traveling than the other sectors. Mean monthly income of the visitors is 24255 rupees which records middle income category. The majority of visitors used Bus as their travel mode while private vehicle and motor bicycle comes second and third respectively. The mean travel time of the visitors is 3.87 hours. The main reason for visiting the place is recorded as the natural beauty of the area. The majority of visitors in the sample visited Belihuloya two times while 23% visited the place first time. Majority of the visitors in the sample had visited Belihuloya twice while 23% visited for the first time. The majority of visitors are willing to Pay (WTP) 300 rupees annually for the place they visited while the mean WTP is recorded as 536 rupees.

Multiple regression models were used to identify the determinants of WTP for current visit per person according to contingent valuation approach. Age, distance, number of visits and monthly income was used as continuous explanatory variables and being Male, being urban dweller, being educated more than GCE O/L as dummy variables. The study established positive relationships of age, number of visits and monthly income with WTP while distance has a significant negative relationship. Being male, Being urban dweller, and educated more than GCE O/L has positive relationship with WTP ($R^2 = 0.54$). Travel cost and distance record a significant negative relationship with the number of visit according to individual travel cost approach.

Key Words: Belihuloya ,Economic valuation, Environment

1. INTRODUCTION

"Increased income and leisure, combined with advances in transportation technology, have made outdoor recreation an important consumption commodity" of the economy (Burt and Brewer, 1971). According to Isabel Mendes and Isabel Proença (2005) outdoor recreation is one of the services that individuals can beneficiate from the simple existence of a well conserved natural ecosystem and the recreation is one of the ecosystem's secondary values, associated with the direct use of these natural assets. Even if the Economic or monitory valuation of natural resources is rather difficult task, many economists attend on these type of valuation based researches at present due to the popularizing the concept of sustainable development and eco-tourism today.

The origin of environmental valuation started even before the concept of land introduced by the Adam Smith and the environmental valuation concept was expanded by several modern economists up to total economic value with use and non-use values of environment (Turner and Pearce, 1990). The environmental resources deal with historical, education, social, aesthetic and economic values. The concept of total economic value of environmental resources includes use value with direct and indirect values and non use values with option, existence and bequest value. Out door recreation is an excellent example for the direct use value of a natural resources according to Ellen Moons (2003).

The economic value of environment has been measured in very broad manner by using several market and non-market valuation techniques. According to Ellen Moons (2003) the most appropriate environmental valuation techniques for the outdoor recreation are travel cost approach which is used as reveled

preference of consumer for recreation and the contingent valuation approach which is used as stated preference of consumer recreation. Some economists used travel cost method to have the reveled willingness to pay which is based on contingent valuation method, of consumer for a certain natural resources.

Harold Hotelling in 1947 was the first to recognize the opportunity of using travel costs as surrogates for prices, in response to a request from the US national park service to find a way to make economic valuation of the benefits of national parks. (Bulov & Lundgren, 2007). Clawson (1959), Yachkaschi (1975), Brown & Mendelsohn 1984, Caulkins et al. 1986, Bell Clawson (1959), Yachkaschi (1975), & Leeworthy 1990, Fletcher et al. 1990, Englin & Mendelsohn 1991, Willis 1991, Garrod & Willis 1992, Adamovicz 1994, Adamowicz et al. 1994, Offenbach & Goodwin 1994, Mankhaus & Lober 1996, Kavianpour & Esmaeili (2002), Mugambi et al. 2006, Shrestha et al. 2007 are some studies applied travel cost method for economic valuation of natural resources by different economists are some studies of different economists that valuated based on the travel cost method for the economic valuation of the natural resources. (Saraj *et al* ,2009,p 85,91).

Travel cost for visit to a certain recreational place included direct expenses of fuel, oil, charges while there are indirect expenses such as the opportunity cost of time either working or visiting another recreational site.

Contingent valuation technique for environmental valuation is identified as stated preference method and Ciriacy-Wantrup (1947) was the first economist that stated the fact that information about people's preferences can be obtained by appropriately constructed interviews (Moons , 2003). Even if the history of Stated Preference method goes to 1958, more studies based on this method had done in 1970s and the method was exclusively applied in 1980s.

Contingent valuation method is based on two concepts of Willingness To Pay (WTP) and the Willingness To Accept (WTA) which is contingent upon the particular hypothetical market. Brookshire and Eubanks, 1978; Brookshire and Randall, 1978; Schulze and d'Arge, 1978, Ellen Moons (2003) has done some studies by using this approach (Moons, 2003).

Some studies (Hanley 1989, Fix & Loomis 1998, Rosenberger 1999) used both travel cost method and contingent valuation method together for environmental valuation (Saraj *et al*, 2009). This study is also used the both methods to derive recreational demand.

This study seeks the recreational value of Belihuloya River near the restaurant of national tourist's board. This site is situated near the Colombo - Badulla main road. Many local and foreign visitors visit this site for recreational bathing purpose. This study is an attempt to value the recreational value of Belihuloya River in economic aspect (Saraj *et al*, 2009).

2. THE OBJECTIVES OF THE RESEARCH

The main objective of the research is to seek the economic value of the environmental beauty at Belihuloya river site near the restaurant.

Specific objectives

The specific objective of the study is to:

Identify the characteristics of domestic tourist demanding for recreation in the area.

Identify the determinants of Willingness to pay for the environment

Identify the demand function for the recreation of the area

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3. METHODOLOGY

The study uses primary data collected through a survey by using structured questionnaire with demographic, socio economic characteristics, location characteristics, the places of visits for recreation and the values of the leisure was separately discussed through the questionnaire.

The Belihuloya surrounding near by the restaurant conducted by the Hotel Corporation Sri Lanka (near the river) was selected as the study area from the other recreational sites in Belihuloya as a cluster. The climate and the beauty of Belihuloya are demanded by majority of domestic tourists than the foreign tourists and the population of the study was the domestic tourists come to the Belihuloya River during their traveling on weekends and holidays in March 2017. Approximately 150 tourists came and the sample size was 108 according to Krejcie and Morgan table. The sample was 100 domestic tourists who responded for the questionnaire and the sampling technique for the final stage was the systematic random sampling since the population framework is not clearly defined. Contingent valuation and travel costs methods were applied to analysis.

Frequencies, percentages, multiple regression models, Semi log regression models were used as the analyzing techniques. Multiple regression models are derived to identify the determinants of the willingness to pay as follows.

$$Y = \beta_o + \beta_1 Z_1 + \beta_2 Z_2 + \beta_3 Z_3 + \beta_4 Z_4 + \ldots\ldots\ldots\ldots + \beta_n Z_7 + \varepsilon$$

Y – Willingness to Pay for current visit per person

Z_1- Age

Z_2- Dummy variable- Being a male

Z_3- Dummy- Being an Urban dweller

Z_4- distance

Z_5-monthly Income

Z_6- Number of visits per period of five years

Z_7- Dummy- having education more than GCE O/L

ε- Error Term The four continuous independent variables including age, distance, monthly income and number of visits were checked for the issue of multicollinearity. Number of visits and distance variables have a correlation and that was solved by using the following sub regression.

Number of visits $(Z_6)= \beta_o + \beta_1 Z_4 + \varepsilon$

The unstandardized residual of the above regression was used instead of the number of visits and the distance was included for the final model to avoid the problem of multicollinearity.

Separate semi log regression models were used for establishing relationships of visits with travel cost to drive the recreational demand curve and to calculate the consumer surplus of the tour. In the Semilog model the slope coefficient measures the constant proportional or relative change in Y for a given absolute change in the value of the regressor (in this case the variable T).

$\ln V = \beta_1 + \beta_2 T + ut$

$ln V$ represents Ln Visits while T represents travel cost.

4. RESULTS AND DISCUSSIONS

The characteristics of tourists are mainly determined according to the demographic, economic and location (geographical) factors.
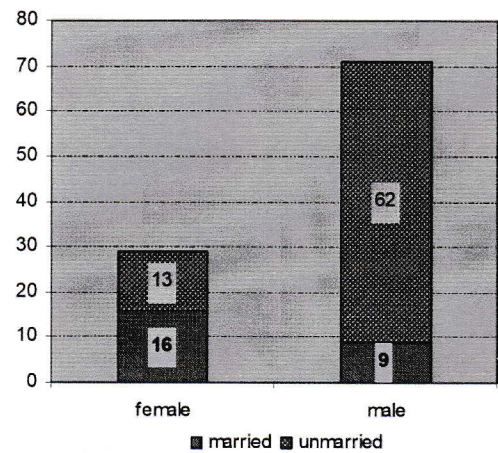
Demographic Characteristics of Tourists

Age, Gender, marital status, ethnicity and number of family members are some important demographic factors concerned with respect to the local visitors to the Belihuloya.

Figure 3-1 Age Structure of Tourists
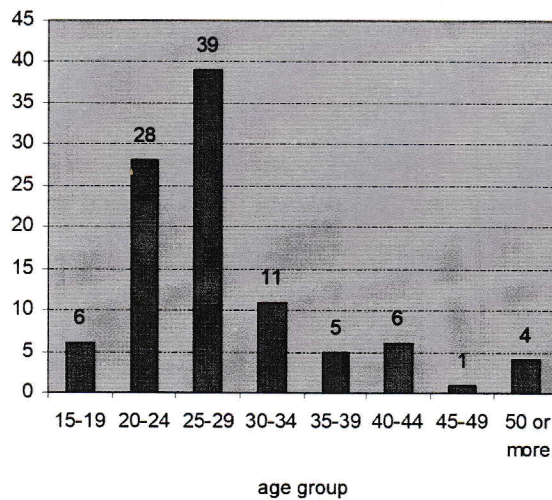
**Figure 3-2 Gender and Marital Status of Tourists**

The young visitors record the highest importance reporting the mean age of visitors as 28. The highest demand is recorded by the age group of 25-29 while second importance goes to the age group of 20-24 (Figure 3-1). Youth has more tendencies to visit for recreational sites with their friends due to the purpose of enjoyment and due to the less burdens of the family responsibilities.

According to Gender males are demanding for recreation than females. Bulov & Lundgren (2015) identify the similar finding. Economic potential of females is expected to be lower than males since the labour force participation rate of females is nearly half than that of males and the unemployment rate of females is nearly double than that of males according to Sri Lanka Labour Force Survey (LFS,2015). Freedom for traveling is rather less for females in Sri Lanka than males as usually be seen in Asian countries and this deals with the social acceptance on the gender role of females. This social acceptance supported to justify the gender specifications among tourists. The majority of visitors are unmarried but there are some specifications in marital status with respect to gender (Figure 3-2). Even if unmarried group is high among males, married category is larger among females. Mostly females engage with recreational activities with their husband and children.

Figure 3-3 Residential Sector
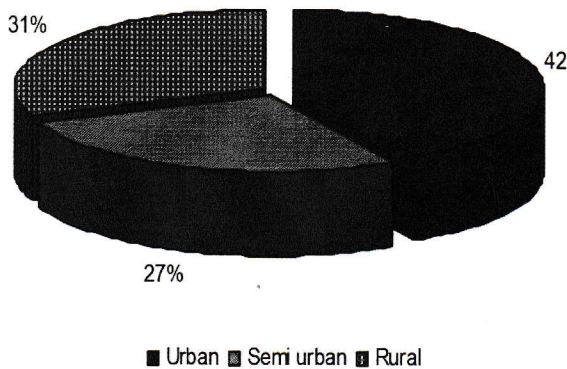
Figure 3-4 Education among terrorists
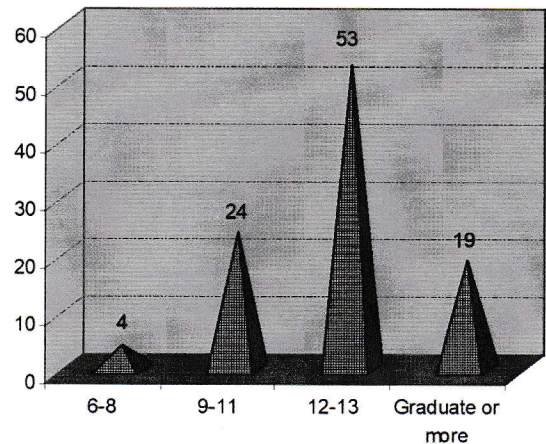
Urban residents are keener on traveling than the other residential sectors (Figure 3-3). Absence of estate sector residents in these recreational activities might be affected by the economic and social vulnerability of that specific

sector, low values assigned to recreational activities or absence of special features of the selected location by the study with reference to their living area.

Considering education of the visitors, the majority represented the secondary educated group. Number of family members is another factor affected for the recreational demand. The range of number of family members is recorded in between 2-9 and the mean number of household among visitors is recorded as 4.36. 42% of visitors are in a family with four members while 19% are in families with four members. 35% visitors are in families with five or more members.

## Location, Travel and Time related Characteristics of Visitors

Considering the characteristics of the tourists visit for the Belihuloya River, Majority of them come from Ratnapura district while second and third importance goes to Gampaha and Badulla respectively (Figure 3-5). Kalutara, Kurunegala, Galle and Kandy are the other important districts with respect to the number of visitors coming to Belihuloya.

Number of visits made by visitors for the same place at Belihuloya is the most important factor showing the re recreational demand during last five years. The majority (67%) of visitors' visits the place 1-5 times. 23% of visitors visit this place for the first time while 13% visitors had visited that place more than 20 times earlier (Figure 3-6). Average number of visits record as 7 times while mode of the visits is 2.

Figure 3-5 Districts of Visitors
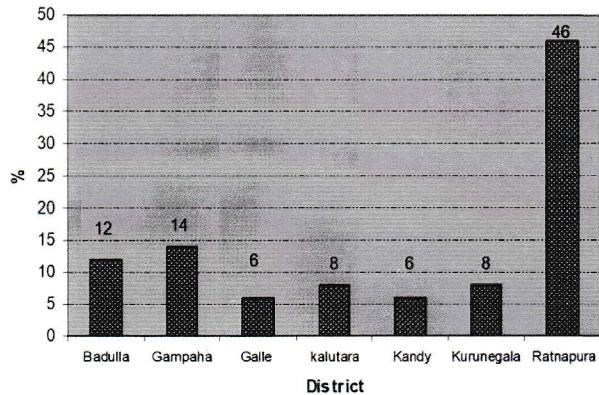
Figure 3-6 Number of   Visits made by the Visitors to   Belihuloya
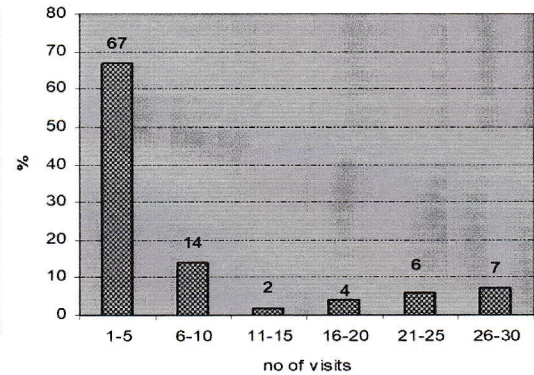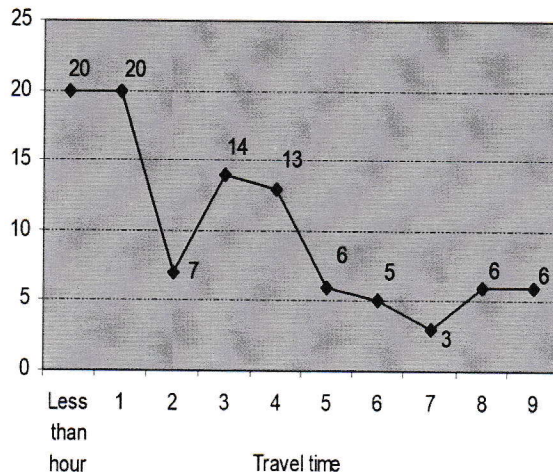

Distance and the travel time are another importation location factors related to the recreational demand. The majority of visitors come from the areas less than 50 kilometers distance while the second importance goes to the distance group 151 to 200 Km. The lowest distance group is further categorized in to small distance categories with 10 km gap. According to that the majority in the low distance category comes from the distance of 10 or less km allowing the second important category as 11-20 km (Figure 3-7). Mean distance of traveling is recorded as 98.62 km among visitors.
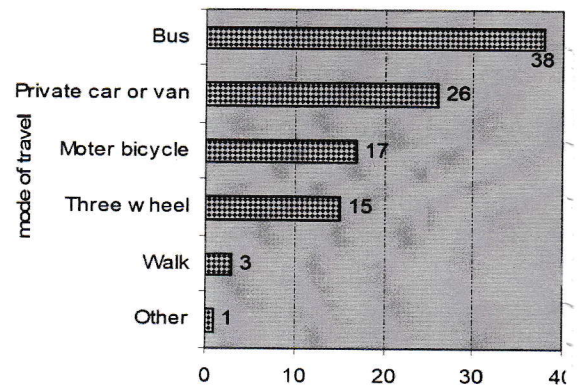
Figure 3-7 Distance of Visitors
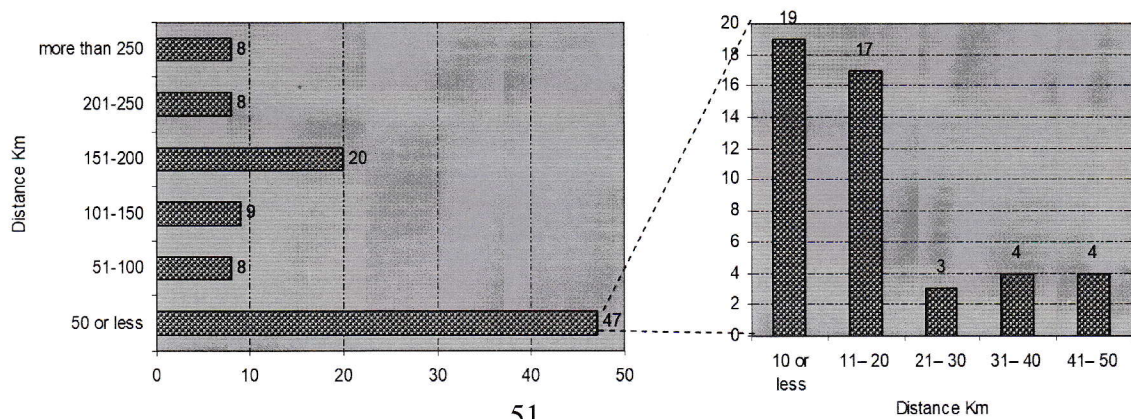
The travel time and the mode of traveling play a significant consequence related to the recreational demand. Time spend for the recreation created indirect economic value.

Figure 3-8 Travel Time   **Figure 3-9 Mode of Traveling**

The majority of visitors spend less than one or two hours on traveling. More than 7 hours long travel time is recorded only by 12 visitors. Mean travel time is recorded as 3.17 hours. Travel time is further related to the travel mode. Considering travel mode, the majority of visitors use the Bus as their travel mode while the second and third highest categories are recorded as private car or van and motor bicycle respectively. Three wheels, waling and other modes of traveling are used by 19 visitors.
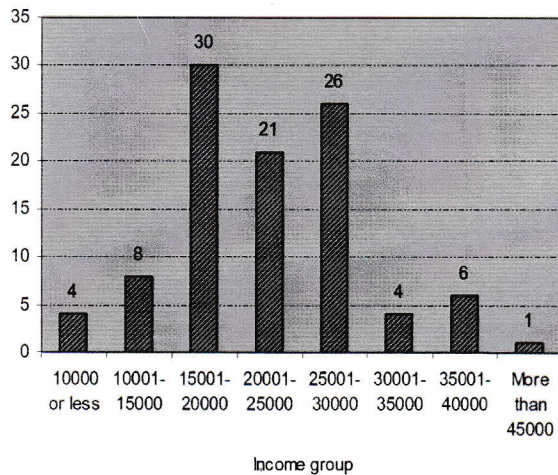
The number of hours spent in the recreational site is another important factor related to the recreational demand. 31% majority of visitors spend four hours at the recreational site while 27% spend three hours and 22% spend one hour there. 16% spend two hours in the site while the other four spend more than 4 hours in the site. The mean number of hours spent in the place is 2. 85 hours.

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Economic Characteristics of Visitors

The economic conditions of the visitors is another important factor related to the recreational demand. Income is the leading factor among all the economic factors. The mean family income of visitors is recorded as Rs. 24255 while mean per capita income is recorded as Rs. 6038.92. The majority of visitors represent the income group of Rs. 15001-20000 while the second importance goes to the income group of Rs. 25001-30000 (Figure 3-10).

Total cost includes all direct and indirect cost of time of a visit. Direct cost includes transport cost and other miscellaneous goods including food. Indirect cost is calculated through family income.

Figure 3-10 Family Income   **Figure 3-11 Total Cost of the Visit**
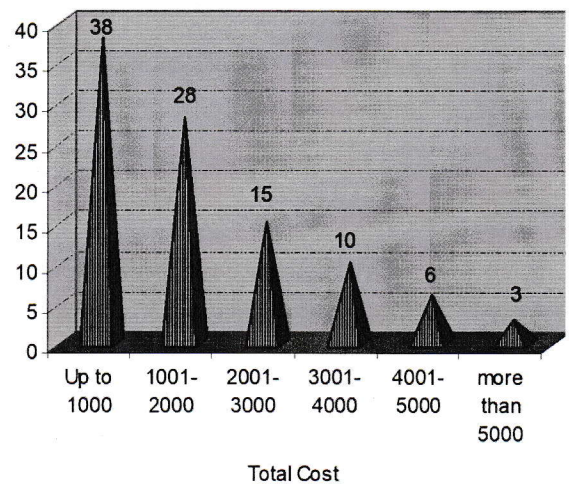
Family income divided from the number of family members to get per capita income. Using individual income as the opportunity cost of time was applied by many economists previously (Mconnell and Strand, 1980). Then it is

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divided by 30 to calculate the income per day and it is further divided into 8 to calculate hourly cost.

Time cost per hour of an individual visitor = (((Family income per month/ Number of family members)/30)/8)

The majority of people spend less than Rs. 1000 per visit while the second and third highest categories are represented as the cost group of 1001-2000 and 2001-3000 respectively. 19 visitors spend more than Rs. 3000 per visit (Figure 3-11). The following table (Figure 3-12) shows the descriptive of economic factors including total cost.

Figure 3-12 Descriptive of Economic Characteristics

Variable	Minimum	Maximum	Mean	Std. Deviation
Month income of the family(Rs)	9500.00	50000.00	24255.00	7618.26
Per capita Income(Rs)	1666.67	16666.67	6038.92	2564.58
Family Expenditure(Rs)	8000.00	35000.00	20621.50	5202.31
Travel Time(Hours)	0.30	9.00	3.17	2.70
Number of hours spend in the place(Hours)	1.00	8.00	2.85	1.37
Total time (Hours)	1.30	12.00	6.02	2.53
Time cost per hour (Rs)	6.94	69.44	25.16	10.69

Indirect time cost(Rs)	20.58	340.28	150.61	82.21
Transport cost(Rs)	0.00	3000.00	773.50	705.38
Other Cost(Rs)	0.00	3200.00	857.90	836.04
Direct cost(Rs)	0.00	6188.00	1631.40	1400.46
Total Cost(Rs)	55.00	6200.00	1782.01	1425.15
Willingness To Pay per Month (Rs)	16.67	83.33	42.58	20.88

According to Figure 3-12 mean time cost per hour is recorded as Rs. 25.16 and the indirect mean time cost is given as Rs. 150.61 while the mean direct cost for individual is recorded as Rs. 1631.40. Mean transport cost is recorded as Rs.773.50 while the WTP (Willingness To Pay) per month is specified as Rs. 42.58 per individual per visit. The total cost of a visit varies between Rs. 55 to Rs. 5212.08 allowing the mean as Rs. 1781.01.

Figure 3-13 WTP of an Individual per visit
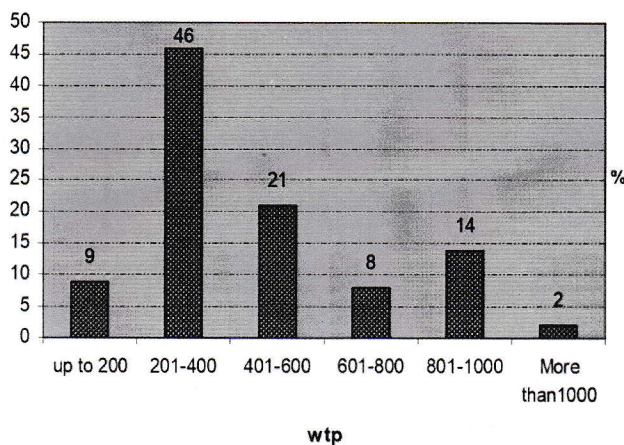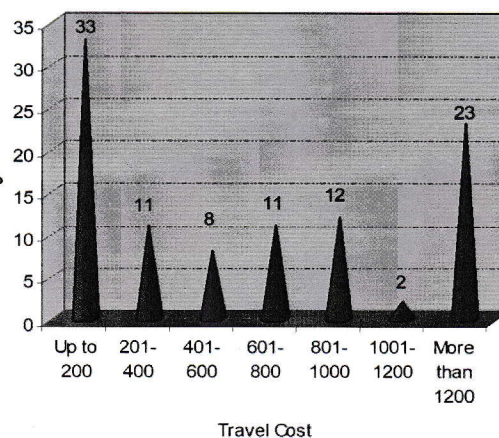
Figure 3-14 Travel Cost

Figure 3-13 shows the annual WTP for recreational value of environment at Belihuloya. The majority likes to pay the amount between Rs 201-400 while only two are willing to pay more than 1000 for the recreational value of the place annually. The mean annual WTP is Rs.536. Travel cost is another significant factor related to the environmental valuation. The majority of visitors spend equal or less than Rs.200 as travel cost while 23 visitors spend more than 1200 rupees.

5. THE RESULTS OF THE MULTIPLE REGRESSION MODELS

Contingent Valuation Method - WTP

Multiple regression model is derived to identify the determinants of WTP for the recreational value at surrounding area of the Belihuloya River of visitors. Before running the multiple regression models the multicollinearity was checked among the continuous variables by using correlation analysis in Appendix 1.

According to the Table 3-1 there is a significant relationship between distance and the number of visits. To avoid the issue of multicollineraity the following regression (Appendix 2) was derived and used the unstanderlized residuals of the following regression instead of the variable of number of visit. Following Appendix 3 shows the variables omitted the problem of multicollineraity.

After solving the problem, the multiple regression models were derived to seek the determinants of WTP as follows (Table 3-1).

Table 3-1 Multiple regression model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1026.416	220.878		-4.647	.000
	age	14.671	3.570	.322	4.110	.000
	Being Male	155.106	58.706	.196	2.642	.010
	urban	114.908	54.286	.158	2.117	.037
	distence	-.844	.304	-.212	-2.775	.007
	monthly income	.025	.004	.515	6.719	.000
	Unstandardized Residual of number of visits	8.107	3.536	.171	2.293	.024
	More than OI	127.872	37.894	.273	3.374	.001

a. Dependent Variable: williness to pay

According to the above regression, a positive significant relationship was established between age and willingness to pay. Increasing one year of age cause to increase Rs. 14.67 of WTP. High age groups are willing to pay more than the younger. According to Bulov & Lundgren, 2007 the number of male visits are recorded to be higher than female. Being male has a positive significant influence for the WTP because the entertainment cost of males are rather high than females. A male visitor is willing to pay Rs. 155 rupees than a female visitor.

Being an urban dweller increase the WTP from Rs. 115 than the rural. The value given by urban dweller for the environmental resources is established by many other environmental valuation studies in literature (McConnell and Strand 1980). The distance has negative relationship with the WTP because the number of places visited is high during a journey with high distance and WTP for one place might be reduced. In the other side transport, food and other miscellaneous expenditure are high in a long journey and it cause to

reduce the Willingness to pay again for the place even. The number of visits increases by one cause to increase willingness to pay from 8 rupees. This conveys a positive relationship between number of visits and willingness to pay. Being educated more the GCE O/L increase the willingness to pay from 128 rupees than the group with the education less than GCE O/L. Overall significance of the model is given as follows by using F test (Table 3-2).

Table 3-2 F Test

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6912350	7	987478.543	15.312	.000[a]
	Residual	5933050	92	64489.676		
	Total	12845400	99			

a. Predictors: (Constant), More than Ol, urban, Being Male, Unstandardized Residual of number of visits, distence, monthly income, age

b. Dependent Variable: williness to pay

The overall model is significant at 95% confidence level according to the Table 3-5. The goodness of fit of the model is 54% according to R^2.

Travel Cost Method

A Simple regression model in between visit and the travel cost is derived here. Before deriving simple regression model the relationship between these two variables are derived in following manner (Figure 3-15). The travel cost variable is consisted with both direct travel cost and indirect time cost of traveling.

**Figure 3-15 Scatter plot
between Travel Cost on Visits**
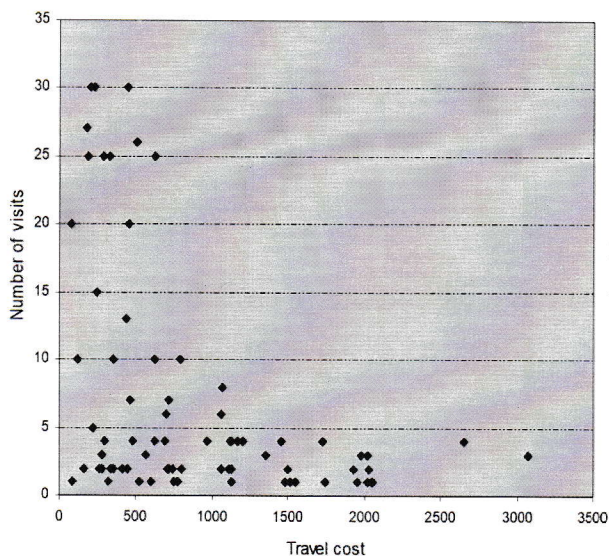
**Figure 3-16 Scatter plot between travel
cost and Ln Visit**
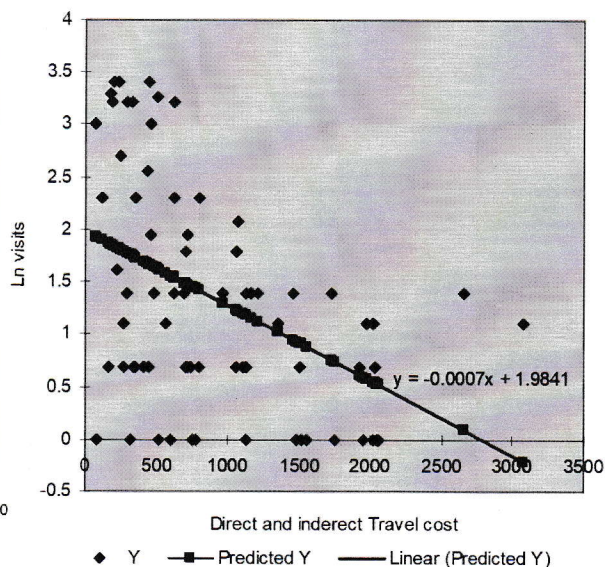
Figure 3-15 shows a nonlinear relationship in between travel cost and number of visits. Therefore, linear regression model could not be used to see the relationship between these two variables. To get a liner relationship between these two variables visit variable is converted into natural log (Ln) form and the scatter plot between ln visit and travel cost is given as Figure 3-16 allowing to have a linear regression as flows (Table 3-3). The key objective of this regression is to seek the relationship between these two variables and the individual significance of these two.

$$LnV = \beta_o + \beta_1 Z_1$$

$$LnViists = 1.984 - 0.001 travel \cos t$$

Table 3-3 Semi log Model for the relationship between travel cost and ln visit

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.984	.162		12.230	.000
	direct and inderect cost of traval	-.001	.000	-.443	-4.898	.000

a. Dependent Variable: lnvisit

When travel cost increases from one rupee the percentage change of visits is 1% (antilog 0.001). R^2 of the model is 20%. Then the consumer surplus is calculated as follows.

Consumer surplus = ½ * 7.27* 2834.29 = Rs. 10303.15

According to the travel cost methods the recreational value at Belihuloya for last five years valued Rs. 10303.15 for individual consumer. For one-year duration that consumer surplus is about Rs. 2060.63 per individual visitor.

Previous studies have also established the same relationship several times. According to Bulov & Lundgren (2007) number of visits decreases as the travel cost increases but it has little effect. McConnell KE & Strand found (1980) that both direct travel cost and indirect travel time cost have negative relationship with visits. Clawson (1959), Yachkaschi (1975), Kavianpour & Esmaeili (2002) Saraj, Yachkaschi, Oladi, Teimouri, Latifi (2009) have already observed a direct relation between the cost and the number of visits. Similar relationship is established by this study as well.

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6. LIMITATIONS OF THE STUDY

Using Travel cost method has some possible limitations which affects to its outcome. Considering some visitors visiting a certain recreational site is only a part of purpose of their trip. In such case taking into account the full cost of the trip for that particular place will overestimate the benefit of the recreational area. This limitation deals with this study too. There is no known way to allocate the trip cost among multiple purposes except omitting the influence of other places or the visitors are asked to subjectively attribute a proportion of trip costs to visiting each destination (Moons, 2013). The second approach is used by this study.

Travel cost is calculated only by having direct charges and the fuel cost of traveling instead of having the expenditure like depreciation of vehicles.

Time cost is calculated by taking the opportunity cost of working. But there is an opportunity cost of visiting another recreational site with visitor. That was not included in time cost. Time cost is calculated by using per capita income derived from family income. Therefore, opportunity cost of time is included even for the economically inactive people.

Recreational demand function is derived by using only two variables of visits and travel cost to have the pre interrelationship between these two variables. Omission of other independent variables affected for the visit will bias the coefficient estimates and therefore bias the consumer surplus estimates.

With respect to contingent valuation techniques general weaknesses of that system such as the actual amount is not the pay in which the people are willing to pay will cause to give overestimated values. Hypothetical nature of

questionnaire allows respondent to lie some times and most of the respondents are unable to assume hypothetical markets.

7. CONCLUSION

This study is an attempt to have economic valuation for the recreational value at Belihuloya River near the restaurant. One of the main objectives of the study is to identify the nature of local visitors that visit the site for recreational purposes. According to that the majority of visitors are less than 30 years old young population. Number of male visitors is higher than the number of female visitors. Unmarried males visit more than married males while the opposite works for females. Majority of visitors attends to the postsecondary education. Visitors from Ratnapura are leading while Badulla and Gampaha came second and third respectively. Urban residents are keener on traveling than the rural. The majority of visitors reported the income level of 15001-20000 rupees while total cost for the recreation is recorded as less than 500 rupees by the majority. Majority of visitors are willing to pay in between 201-400 rupees WTP annually. Considering the number of visits of the sample, 67% is in-between 1-5 visits. Majority of visitors comes from a distance less than 50 km. Bus is the common traveling mode of visitors in this sample.

Willingness to pay of the study is mainly determined by serval socio economic demographic and location factors. Since the economic potential of workers increases with age it causes to increase the demand for leisure in line with the classical labor leisure model. Increasing the demand of leisure is a sign of the improvement of the living standards of people with their economic prosperity. Willingness to pay of male is higher than that of females. Females are experiencing lowers number of leisure hours than males due to the triple burden they faced with productive, reproductive and socially productive

works. Urban dwellers would like to pay more for the natural beauty of the surrounding of the Belihuloya River than the non-urban dwellers since they feel this environment as a new experience. The novelty of the leisure experience in the selected place is relatively low for rural and estate sector people since they are generally experiencing such beauty in their day today lives. High income group would like to pay more for the natural beauty as expected and the economic potential of consumer is increasing purchasing power and the willingness for demanding a commodity in line with the demand theory. Number of visits for the same place could be used a proxy variable to show the demand of people for the place and this increasing the willingness to pay for the recreational demand of the place. Education is also considered as an important variable determining the willingness to pay. The value given by the educated group for the natural environment is higher than the others with their awareness on them. When the distance is for willingness to pay for the recreational place would get lower, since their cost of travelling and other complimentary expenses are high. When the complimentary expenses are high the willingness to pay for the Belihuloya recreation would be reduced. According to the travel cost method the demand curve for recreation is derived and the relationship between travel cost and the visits show statistically significant negative value through the semi log model. Belihuloya- Recreational site could be promoted as a key tourism heritage of Sabaragamuwa by introducing attractive promotional programmes for both local and foreign tourists with the proper mediation of local government authorities as well as the private providers of recreational services. Since the Belihuloya surrounding includes number of beautiful recreational sites and tourist's hotels, different recreational packages including all sites could be introduced for target tourists manly in urban areas. Adventure tourism also

could be promoted among youth based on the natural inheritance of the Belihuloya recreation to obtain the optimum economic advantage for the natural beauty of the area.

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APPENDIX

Appendix 1

		No of visits	monthly income	distence	age
No of visits	Pearson Correlation	1	.052	-.356**	.103
	Sig. (2-tailed)		.609	.000	.308
	N	100	100	100	100
monthly income	Pearson Correlation	.052	1	.148	-.142
	Sig. (2-tailed)	.609		.141	.159
	N	100	100	100	100
distence	Pearson Correlation	-.356**	.148	1	.111
	Sig. (2-tailed)	.000	.141		.271
	N	100	100	100	100
age	Pearson Correlation	.103	-.142	.111	1
	Sig. (2-tailed)	.308	.159	.271	
	N	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 2

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.319	1.133		9.995	.000
	distence	-.032	.008	-.356	-3.775	.000

a. Dependent Variable: No of visits