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## Protecting Value Estimation Using Intention of People to Pay (Case Study: Khajeh Mountain and Hamun Pond Tourist-Recreation Center)

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#### ABSTRACT

Hamun is placed in Zabol City in Sistan province Khajeh Mountain and Hamun Pond tourist-recreation center due to the many attractions, one of the main tourist areas in the province has become. The case study can predict the value of the recreational needs and shortages and effective development of tourism in the region.

This study aimed to determine the conservation value resort, mountain tourism eunuch and wetlands Hamun and measuring the willingness to pay for conservation benefits of using the contingent valuation and complete the questionnaire deals. To measure the willingness to pay of the Logit regression model was used based on the maximum likelihood method; the parameters of the model were estimated.

The results show that 86% of the subjects in this study were willing to pay to protect the mountain resort of eunuchs and wetlands Hamun Are. Willing to pay a monthly average per household surveyed in this study for conservation value resort area is estimated to be 19580 Rials and conservation value of 216360 dollars per year per household for this estimation. Given the importance that people attach to visit this place, and also to achieve a healthy society through the advancement and economic development, was fitting that the improve the quality of program managers and officials of the environment, control and monitor to achieve development sustained attention and the development of regional landscapes suitable for families and health facilities in these areas to raise prosperity of the region, for more **KEYWORDS**: protecting value, intention to pay for Hamun, Khajeh Mountain and pond.

### 1. INTRODUCTION

The main aim of economic valuation of environmental assets is the tools for considering the environmental effects of the project on the local economy and macro economy of the country. Although the environment is an important component of environmental humans, but it has real value and assistance not clearly defined, so that one of the most important challenges facing governments in the twenty-first century, the environmental crisis (Nakhaei et al., 2000). For this reason, governments tend to adopt different policies and programs based on the results of a field survey on environmental problems to overcome, and the negative effects on the environment functions of human beings to decrease. Future years of Iranian policymakers must make important decisions about the future of natural resources that are rapidly degraded adopt. Ecosystem continuous natural degradation, generating a message for all people, evens those who directly rely on these systems for a living and for other people. With regard to the role of the environment in the country's economic system, economic valuation Economy and environment can play an important role in solving environmental problems, so environmental economics tries to be a good way to identify the source of contamination in the economy, the estimated losses and the value of environmental resources (Karimzadegan, 1990).

Since the proper use of natural resources and recreational areas as well as providing facilities for supplying the needs of recreational Raji spit in the present and the future, not only can remove the monotony of city life but also the beauty and freshness of mind and environment population will cause mental relaxation. The fixed costs that can be done to create a green space in addition to the reduction of economic and social crime arguably can also be justified on the welfare of the individual and effective, and the result social well-being. The destruction of the environment vice versa depression can cause people and reduce their productivity in their daily activities and work, so freshness of a society is closely associated with the environment and, accordingly, a revival of the environment and restoring life to it can be an important factor spirit of man is the joy and hope. Creating a healthy and productive society to continue to progress and economic development need to create, develop and maintain the resort and tourist areas to meet the growing demand in humans. Analysis of factors affecting the economic and social aspirations of the people can be expected in terms of needs and gaps in many areas will help tourism. These factors, it is important for people to visit and use a lot of help from the tourist areas. One of these factors is the value that people attach to visit the tourist areas and resorts that are actually part of the direct interest of the said sums or willingness to pay to express it. One of the standard methods and flexible and are frequently used in research to measure the willingness to pay and the value of leisure and sources of environmental the value of is conditional. (Walsh, 1984, Wencatachalam, 2004)

In the context of determining a society's willingness to pay for the efficiency of tourism recreation areas with the use of contingent valuation, as well as its importance, Many studies have been done.

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Verbic, M. and slabe-Erker, R. (2008) in a study with an econometric analysis of the willingness to pay for sustainable development perspectives in Slovenia examined. The economic valuation study was conducted separate from visitors. The resulting coefficients can be concluded that the respondents believed that the large losses of lack of planning for sustainable development in the region, the willingness to pay 238.5 Currency more than others. Willingness to pay value obtained using the explanatory variables 474.8 monetary unit.

Satut et al. (2007), Lebanon cedar forest recreational value using the contingent valuation method 43.43 Dollars per year per household was calculated.

Leinhoop, N, and D. MacMillan (2007) Report on the use of contingent valuation basis that the estimated costs and benefits of environmental and water projects in the Icelandic wilderness areas of the method used. Average willingness to pay for people who want to be protected wilderness 780,170 was the lowest bound and lack of accountability.

Farazmand (2011) did a study to determine the safety of grain resort Shiraz and measure the willingness to pay for conservation benefits of using the contingent valuation method and completion of the questionnaire. The results show that 71% of the subjects in this study were willing to pay to protect the resort area of grain Shiraz. Willing to pay a monthly average of 18880 Rials per household is estimated to be examined as well as the conservation value per family per year is estimated at 226560 dollars.

Najjari et al. (2011), well half-area resorts in Sistan region have been studied. To investigate the factors influencing the willingness to pay of the Logit model (LOGIT) used the results showed that 93% of visitors are willing to pay for half of the wells and the average willingness to pay for the value of 3920 Nimchah outing Rials annual recreational value for each visit and it was estimated to 1568000000 dollars.

Shahraki et al. (2012), a study of willingness to pay for the amount of visitors to the historic town of Burnt using contingent valuation method and dual-choice questionnaire to determine the size of the results show that with 58 percent of those surveyed This willingness to pay for visit the historic town of Burnt average pay and willingness to pay 6563 dollars for each visit, and the total value of recreational visitors annually, it is estimated more than 1292 million dollars.

Several studies indicate that the contingent valuation method, the method for determining the value of protecting natural resources. This method tries to tend to pay under certain hypothetical market scenarios, determine.

(LEE and HAN)

Contingent valuation method, the method is the preferred method for the valuation of natural resources. In this way the question is asked, referring to the tendency of people to pay or not to pay an entry in an increase or decrease in the consumption of environmental goods.

In Iran there are numerous natural and artificial ecosystems such as wetlands and mountains and national parks are among the region's tourism recreation pond Hamun Khajeh Mountains. Wetlands International Hamun one of the most important wetlands in the world and the largest freshwater lake in the plateau area of about 5700 km is the range of 1 to 5 meters deep in the desert and desert East of the country, is located in Sistan just nook migratory birds live in this region and therefore of considerable national and international organizations and international conservation and protection of birds, as important habitat for birds introduced. The lake consists of three parts, namely the Hamun Pazuki in the Northeast, Hamun Saberi in the north, Hamun Hirmand Sistan made in the West and Southwest. Hamun Hirmand which is located in Sistan about 470 meters from the sea and 45 km from the southwestern city Zabol is located. Sistan area is 500 thousand populations. The average depth of one meter at a time of high water, in the water 0.5 Meters and the water has been set to zero.

Ecosystem Hamun At the time of high water is unique. Water, Wetlands, distributing water from flooded rivers, marshlands and high biodiversity of algae, insects and fish has led to hundreds of bird habitats in the region, particularly the aquatic birds. But it should be noted that the population directly related to the amount of water and vegetation in the lake. Due to the drought of the last few years and the creation of new dams and water reservoirs, wells, with the capacity of the river Hirmand is reduced to dryness Hamun Hirmand. Beside the lake, Oushida Mountain is now known as Khajeh Mountains. The only effect of natural mountain plain with a height of approximately 609 meters above sea level is a small island in the lake during high water Hamun Shape. There are old palaces, temples, shrines and beautiful mountain scenery is different. The trapezoid-shaped basalt lava of the mountain, which is about 30 km southwest of the city Zabol and the middle of the lake Hamun is tall. But over time, the continuing drought and dry lake Hamun and the force of nature, the main building is on the brink of destruction.

The purpose of this study was to identify and evaluate the tourist resort area of wetlands Hamun and Mount Khajeh is given population Zabol and the need for a clean environment, recreation and landscape, as well as the lack of recreational facilities in Sistan is very important. Due to this fact, in recent years this place has a lot of valuable experience and due to the drought and neglect to address and welfare of the economic interests of and non-people is looking for attention over the past authorities.

### 2. METHODS AND MATERIALS

Contingent valuation method commonly referred to as a standard and flexible tool for measuring values and the values of environmental resources are used. This method tries to tend to pay under certain hypothetical market scenarios establish (Vankatachalam, 2004).

In this way the people will be asked to consider how much to improve its quality. Compared to other methods of estimating the cost of environmental goods priceless most important feature is that the pricing is subject to specific questions and conclusions of the laboratory using a computer, of all goods and servicing of the environment is measured.

In this study to measure the willingness to pay of visitors in check Dichotomous choice CVM questionnaire twodimensional (DDC) is used.

This requires determination and offers a choice of more than the initial proposal. Offer to answer yes or no response or reaction depends on the initial proposal. (Vankatachalam, 2004)

After collecting information through questionnaires and other research instruments, the total proposed amount equal to the total value of the target population will be economic. One of the methods, Logit regression model and estimate the parameters of the model that predicts the probability values between zero and one.

To determine the measure of willingness to pay, we assume that the amount proposed (cost price) for the recreational destination resort lagoon Hamun and the Oushida Mountain Maximize its utility based on the following conditions accepts or rejects it otherwise. (2002 howarth & harber)

### $U(1, Y - A; S) + \varepsilon_1 \ge U(0, Y; S) + \varepsilon_0$ (1)

Indirect utility which one obtains  $\mathbf{U}_{\mathbf{i}}$  in which

A and Y are individual income and other socioeconomic characteristics that affect individual tastes. Zero means that the person does not visit places of amusement and 1 means that one of the places with mean zero random variables that are equal and independent, have been distributed  $\boldsymbol{\epsilon}_1$  and  $\boldsymbol{\epsilon}_0$ .

(2)

Can be related to the number (2) is described as follows:  $(\Delta U)$ Utility difference

# $\Delta U = U(1, Y - A; S) - U(0, Y; S) + (\varepsilon_1 - \varepsilon_0)$

Greater than zero, this means that their desirability responding by saying "yes" and agree to pay  $\Delta U$  so what

The amount of space for recreational use, Max does. In other words, the acceptance for payment is a function of Y, A, S. The dependent variable for both entertainment value and quality protection, and only one or zero values are provided. In these cases, regression models with qualitative variables, the models are suitable. (2008, BARAL)

In general, different models to evaluate the regressions with the dependent variable, there are qualitative.

These models include linear probability models, Logit, Probit and Tobit. This study aimed to investigate the effect of different variables on the willingness to pay for recreational values of wetlands Hamun and the Oushida Mountain Logit regression model was used.

The probability one of the recommendations (A) takes (1) the probability that one of the recommendations (A) accept (0). Based on the Logit model, in the form of equation (3) and (4) is expressed. (Amirnezhad, 2006):

$$P_{i} = f_{n}(\Delta U) = \frac{1}{1 + \exp(-\Delta U)} = \frac{1}{1 + \exp\{-(\alpha - \beta A + \gamma Y + \theta S)\}}$$
(3)  
$$1 - P_{i} = \frac{1}{1 + \exp(-\Delta U)} = \frac{1}{1 + \exp\{\alpha + \beta A + \gamma Y + \theta S\}}$$
(4)

 $f_{u}(AU)$ 

The cumulative distribution function of a standard logistic difference is that some of the socio - economic research included. Y and A have the income, the amount proposed S and other social features - an economy that is influenced by personal taste. Therefore:

$$\frac{\mathbf{F}_{i}}{1-\mathbf{p}_{i}} = \frac{1+\exp(\Delta U)}{1+\exp(-\Delta U)} = \exp\{\alpha + \beta \mathbf{A} + \gamma \mathbf{Y} + \mathbf{\theta}\mathbf{S}\}$$
(5)

Equation (5) accepts probability of at least one of the proposed amounts to the economic value of a person's rejection of the show. However, if we take the natural logarithm of the pressure equation (6) we have, .N quoted silky It is known that the relationship Logit, stated as follows (N, 2009)

$$L_{i} = L_{n} \left[ \frac{p_{i}}{1 - p_{i}} \right] = \Delta U = \alpha + \beta A + \gamma Y + \theta S$$
(6)

In this study, the Logit model parameters using maximum likelihood estimation method which is the most common technique for estimating the Logit model, they estimated the average willingness to pay Tqry never been used in this study.

The expected value of the willingness to pay by numerical integration in the range of zero to the highest bidder (A) in equation (7) can be obtained by:

$$E(WTP) = \int_{0}^{MAX,A} f_n(\Delta U) dA = \int_{0}^{MAX,A} \left[\frac{1}{1 + \exp\{-(\alpha^* + \beta A)\}}\right] dA$$
(7)

The expected value of willingness to pay and the intercept was moderated by the community - including the intercept of the economy ( $\alpha$ ) was added. Statistical analysis of variables and parameters for estimating the Logit model, Eviews software is used.

To estimate the recreational value of wetlands Hamun and the Oushida Mountain using contingent valuation method, two-dimensional dual selection of 260 questionnaires by people in Sistan, in Persian date Bahman (winter

second month in solar system) of 2014 were completed. In this study, interviews and questionnaires were conducted with individuals with monthly income. The questionnaire also asked a variety of information Socio - economic, as well as questions about the condition and value of the respondents was willing to pay. Variables were: age, gender, occupation, marital status, education level, family size, income, number of visits to places of interest, the cost incurred for each visit, the origin of travel, vehicle, mode of travel, visiting days, view chapter, causes, duration of stay in place, or not willing to stay overnight, the maximum willingness to pay and willingness to pay for improved protection and maximum amount of space.

### 3. RESULTS AND DISCUSSION

Statistical results of a questionnaire survey of 260 recreational values of wetlands Hamun and the Oushida Mountain is as follows:

260 individual respondents to questionnaires, 180 were men and 80 were women. That all these people have formed native of Sistan.

Table, "1": The results of the	Logit model to estimate the recreational	l value of wetlands Hamun a	and Mount Khajeh

Variables	Introducing the variables	The estimated coefficients	Value statistics t	Significant level.	The final result
С	Constant	5.8721	4.01	0.0001	7.201
X1	The bids	-0. 7121	-7. 733	-0. 89	-0.13
X <sub>2</sub>	Age	-0. 142	-0. 623	-0. 112	-0.25
X <sub>3</sub>	Sex	2. 934	2. 624	0. 698	0. 52
X <sub>4</sub>	Monthly income	0. 891	5.36	1.104	0.17
X <sub>5</sub>	Number of Views	-0. 501	-6. 28	-0. 95	-0. 70
X <sub>6</sub>	Distance	0.0001	2.68	0. 0073	0.0002
X <sub>7</sub>	Education	0. 352	0. 61	0. 102	0. 67
X <sub>8</sub>	Job	-0. 462	-3. 01	-0. 196	-0. 82

As Table 1 shows the estimated coefficients for the explanatory variables of employment, income, gender, number of views and the proposed amount is statistically significant at the 5% level. Visitors will also have the positive effect of gender, income and occupation variables, the proposed amount and frequency of visitors to pay a visit to have a negative effect on the willingness of the lagoon. Variables such as education, family size and age are not statistically significant, but the signs are desired, while the increase in household size is statistically significant and have the expected signs.

Increase people's willingness to pay to reduce family size was necessary because consumer spending increases. In contrast, the social costs are low. The increase in years of education because of greater awareness of the benefits of having the benefits of environmental individuals is increased willingness to pay is a whole as shown in the table, the final effect 0.67 Is. This suggests that education has a direct connection to pay more to achieve prosperity. The results of Amirnezhad & Khalilian (2006) Satut et al (2007) studies are consistent. The final effect of income 0.17 and indicate that the higher the income, the amount they are willing to pay more for recreational use. The effect of varying the amount of the proposed final -0.13 which indicate that the greater the amount paid, fewer visitors are willing to pay. Age also shows that older people tend to pay less and have more visitors because it is perhaps the younger people are more willing to pay more so fun.

Description	Excellent	good	medium	weak	Very weak
Cleaning the bathroom.	1.12%	14.64%	(27%). 72	32%. 41	24.11%
Number of bathrooms	0%	12.32%	24.83%	42.56%	20.29%
The green space	9.21%	19.64%	28.57%	33.76%	8.82%
The access to drinking water	4.3%	19.6%	18.27%	24.44%	21.48%
The amenities	0%	11.41%	16.32%	38.45%	33.82%
Status resorts and benches	0%	18.43%	28.54%	25.65%	27.38%
The mall road	19%	32%	16%	18%	15%
The care of the marina	21.72%	32%	19.41%	10.14%	16.73%
Parking Situation	4.82%	41.32%	15.21%	9.44%	4.82%

That the results in Table 2 comes on, and the number of visitors to the bathroom to clean, green spaces, clean drinking water requirements, the amenities, the resort and the bench, so the lack of roads and parking lots are not happy a place to sit, as well as the lack of sanitary facilities and the lowest levels of satisfaction and other items requested by filling the questionnaire are also desirable, and satisfying.

Note that if the problem is resolved and provide amenities for visitors, you can open the way for tourism and economic development and prosperity of the region requires the control. As well as recreational facilities in Zabol on the other hand, there is very little green space and recreational One Psychological factors in the development and welfare of the individual, the local was also very important and will effect on it.

### 4. CONCLUSION AND SUGGESTION

In the present study, using contingent valuation, value entertainment - Wetland tourism Hamun and the Oushida Mountain It has been estimated. To the overall, the results suggest that the variables of employment, the amount proposed, Read the income of the factors that most influence on the willingness To pay for their recreational value of these variables tend to Paid, highly affected by the level of income, environmental quality and price are wetlands. Moreover, they were told to assume that all proposed amount spent on improving the region's air clean entertainment. . However, the influence of income level, is undoubtedly moving towards a more equitable distribution of income, will have a significant effect on the motivation of the cooperative. In addition, the changing environment and water quality in wetlands Hamun are significantly positive effect on the entry. With the given the importance that people are allowed to visit this fascinating environment, people are willing to pay visits to the protection of the resort area it can be taken by the relevant authorities referred ticket S, collaborative management and development establishment of appropriate facilities provided. Younger people are more willing to protect Lagoon resort area have, therefore, recommended that the relevant authorities the policies that protect natural resources and adopt the resort area Greater attention to the younger generation. According to the feature the resort area of having a beautiful landscape and beautiful mountains in the middle of the lagoon, as well as being close to the city Zabol this area can therefore accept a large number of nature lovers

According to this point of view, it is better to have more attention to the planners and officials with development of appropriate facilities for families and the health of the species above all water entering the wetland areas and reopen the dialog and create contracts for the water of wetlands of the neighboring country (Afghanistan) and tried to raise the welfare of society for more.

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