

Research Paper

Estimating the Community's Willingness to Pay for the Protection of the Caspian Sea Coast of Māzandarān Province (New Evidence of the Conditional Valuation Method)

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Abstract

The Contingent Valuation Method (CVM) and a single bounded selection questionnaire were used in this study to identify the protection value of the coasts of the Caspian Sea in Māzandarān province and the tourists' willingness to pay (WTP) for these coasts. Also, using the probit model, the willingness to pay was measured, and the parameters of this model were estimated. The research sample included 1524 tourists of these coasts in the spring of 2019. The findings showed that the average willingness of tourists to pay monthly for the protection of these coasts in the spring of 2019 was 14964 Tomans and for all tourists was about 230 billion and 199 million Tomans per month. Based on the results of the regression model, the variables of the bid price, individuals' income, and level of education of tourists have been the most important factors influencing the willingness of tourists to pay for the protection of the Caspian Sea coast of Māzandarān province. These results can be a good guide for policymakers and planners of the tourism industry in Māzandarān province.

Keywords: Willingness to Pay, Tourism, Contingent Valuation Method, Single Bounded, Caspian coast.

Highlight

- In cases where the market is unsuccessful in determining the price of goods and services, discovering the value of these goods and services requires finding a criterion of willingness to pay consumers.
- One of the methods of discovering the value that society attaches to these goods is the Contingent Valuation Method.

Extended Abstract

Introduction

Goods and services either have a market where their price is determined through supply and demand, or they don't have a market where their value can be discovered differently. In cases where the market is unsuccessful in determining the price, finding the value of these goods and services requires finding a criterion of consumers' willingness to pay. Since the coasts of the Caspian Sea in Māzandarān province are not such markets where goods can be bought and sold, it is impossible to refer to the market to discover the value society places on these coasts. One way to find society's value for these coasts is the contingent valuation method (CVM). In this method, people are referred to, and their protection preferences are estimated to discover the value of non-market goods and services - in this case, the Caspian Sea coast of Māzandarān province. That value is the value of those goods and services. They consider it non-market, and because the discovery of the value is made through the design of hypothetical markets, it is called the contingent valuation method. The purpose of the contingent valuation method is to extract individual preferences and tastes in monetary terms for changes in the quality and quantity of non-market environmental resources and the willingness to pay (WTP) or the willingness to accept (WTA) for changes created in environmental goods and services directly by asking people (Amiri et al., 2014). The contingent

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valuation method typically estimates the environmental change scenario, beginning by explaining the environmental goods or services changes and then asking individuals to determine how much they are willing to pay for it (Lee et al., 2010). In other words, the CVM is based on a research approach to valuing non-market environmental goods and services. This approach requires hypothetical construction or market simulation through a questionnaire in which respondents answer questions about their willingness to pay for or accept the specific environmental changes.

This method examines these goods and services consumption and non-consumption values (Aftak, 2006). This method is used as an acceptable method and a tool to discover the value of public goods in cost-benefit analysis. It has been used in hundreds of non-market and mainly environmental goods evaluation projects (Hassan Shahi, 2002).

This study aimed to estimate the willingness of tourists to pay for the Caspian coast of Māzandarān province to protect these coasts and determine the factors influencing it for use in environmental management decisions by planners and provincial officials. The use of CVM, selecting the number of samples by Michel and Carson method, and choosing the proposed amounts by Boyle and Bishab method is one of the significant points in this research.

Methodology

In this research, to identify the investment opportunities of the tourism industry of Māzandarān province, the protection value of the coasts of the Caspian Sea in Māzandarān province and the tourists' willingness to pay (WTP) for these coasts, the Contingent Valuation Method (CVM) and a single bounded selection questionnaire was used. Also, using the probit model, the willingness to pay was measured, and the parameters of this model were estimated.

Results and discussion

The findings showed that the average willingness of tourists to pay monthly for the protection of these coasts in the spring of 2019 was 14964 Tomans and for all tourists was about 230 billion and 199 million Tomans. Based on the results of the regression model, the variables of bid price, income of individuals and level of education of tourists were the most important factors influencing the willingness to pay of tourists for the protection of the Caspian coast of Māzandarān province.

Conclusion

Considering the positive effect of education level and income on the willingness to pay for the protection of the coasts of the Caspian Sea in Māzandarān province, public media should introduce educated and high-income people to the touristic attractions and environmental values of the coasts of the Caspian Sea in Māzandarān province. Also, the government should carry out the necessary policies to increase the number of high income and education tourists and allow low-income people to travel to these coasts.

The establishment of the financial fund for the protection of the coasts of the Caspian Sea in Māzandarān province, under the supervision of the Māzandarān governorate and public institutions, has been carried out to collect voluntary funds from the tourists of these coasts. This fund has been introduced in the public media and projects to protect and beautify these coasts.

Since the willingness of tourists to pay monthly for the protection of the coasts of the Caspian Sea in Māzandarān province in the spring of 2018 was 14,964 Tomans, and for all tourists, it was about 230 billion and 199 million Tomans, from the economic point of view any cost for the protection and maintenance of these coasts up to this amount is economical.

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Authors' Contribution

The authors contribute equally to the conceptualization and writing of the article. All authors have seen and agreed with the contents of the manuscript submitted to review.

Conflict of Interest

The authors have no conflict of interest to declare.

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