Estimating the Recreational Value of Forest Parks Using Contingent Valuation Method (Case Study: Hassan Gavyar Forest Park of Noorabad City)

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Abstract
Nowadays, development of green areas and the provision of recreational facilities for filling the leisure time seem to be quite necessary. However, lack of financial resources for reviving and providing appropriate recreational facilities makes natural resources management not only to evaluate these resources but also use people's contribution to conserve and revive these areas. Moreover, the valuations of environmental resources have played an important role in environmental economics. In which case, this study aims to estimate the preservation value of Hassan Gavyar forest park of Noorabad city, which is one of the most important recreation areas in Noorabad city, using contingent valuation method. To achieve this goal and estimate people's willingness to pay, Logit model based on maximum likelihood method was used. Required data have been collected by 102 questionnaires. Results show that the mean WTP for a person to visit the park is equal to 17919 Rials and that of households is equal to 215028 Rials. Also, the results clarify that the variable of gender is the most effective on the acceptance of the suggested price.

1. Introduction

Forest ecosystems provide many economic values to human. Generally, these values can be divided into; direct, indirect, option, existence and heritage values [17]. Direct values are related to direct use of resources. In forest areas, the use of these areas for recreation and leisure is considered as direct value. Indirect values mean benefits and interests that people may obtain indirectly or as a result of initial activities on available resources. Ecological services of these areas such as carbon sequestration, moderating effect on climate, and so on are of indirect values. Existence value is the intrinsic value of a resource which never is used or observed. Heritage value or value of future generations is the desirability created by the awareness of maintaining the natural property for future generations [3]. Option value refers to the value that is placed on private willingness to pay for maintaining or preserving a public asset or service even if there is little or no likelihood of the individual actually ever using it. Option value is an indicator of people's preference degree for maintaining a forest park versus its possible use in the future. In other words, existence value is defined as willingness of the public to pay to protect forest park, Heritage value is defined as the tendency of people for paying to protect forest park for the benefit of future generations and option value is defined as willingness of individuals to pay to protect forest park for opportunities and possible consuming activities in the future. Hence, recreational and tourism value is classified as direct values of forest ecosystems and parks including the use of forests and parks for recreation, leisure, entertainment, hiking, and aesthetics. Environment is highly associated with economy and they will affect each other. Proper management recreational facilities and green space of a region has a principal effect on the economy of that region. Valuing the natural capital is one of the effective factors in sustainable development. Creating a healthy and productive society for sustainable economic development requires keeping and developing natural resorts and tourist areas in order to meet the growing needs of humans. It is obvious that a part of this cost should be paid by the visitors. Generally, bearing such costs is associated with the beliefs of people or, in other words, their willingness to pay. Therefore, economic and social analysis of factors affecting people's demands and willingness to pay can considerably contribute to the anticipation of the needs and deficiencies of natural parks and tourist areas. Valuation of non-market functions and services of the environment is of great importance due to several reasons such as appreciation of environmental and ecological resources by humans, analysis of environmental issues by decision makers and planners, providing a link between economic policies and natural revenues, getting access to information about the structure and function of ecosystems, assessing the role and importance of environmental resources in support of human well-being and sustainable development, modifying the set of national accounts such as GDP, and preventing the destruction and indiscriminate exploitation of natural resources [5]. In recent decades, economic-social development and growth as a continuous process in many communities has been accompanied with the increase in national income and positive changes per capita income. In such circumstances, tourism has attracted the attentions as a way to fill the leisure time aiming at reducing the impact of increasing stresses caused by centralized urban and industrial life. Development of economic activities, population growth, increasing busy life, raising living standards, the phenomenon of air pollution in large cities, noise pollution and other environmental pollutants have caused a dramatic increase in demand for natural environments. This is increasing the need of urban people to nature and using its endowments, escaping from mechanical life, and taking refuge in natural recreational areas and resorts outside the cities. Many efforts have been made to determine the benefits obtained from forest recreation areas and national parks. Such actions are an important part of the benefit-cost