

Estimation of Recreational Value of Udawalawa National Park: A Revisit

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Abstract

Estimating the value of a National Park is a challenging task as the services provided by the National Park does not capture effectively in the markets. However the resource allocators and managers need to be aware of the values of those assets for efficient and fair allocation of resources and better management of such resources.

Popularization of nonmarket valuation techniques during late 90s motivated many researchers in estimating recreational values of Sri Lankan National Parks. The travel cost methodology, was widely used technique to derive such values. It depends on current market prices and estimated values were nominal values. Hence such values change with the changing price levels. The estimation of recreational value of Udawalawa National park has already been carried out in 1996 and the estimated value was 2.18 million Rupees (1USD = 55.27 LKR) per annum. Therefore, the aim of this study was to re-estimate the recreational value of the Park to update the knowledge base for the decision makers.

In the study, 272 visitors were interviewed during a period of one month. Data was collected on information on area of residence, socio economic status, their visitation rates to Udawalawa National Park, willingness to see wildlife, information on round trip mileage, travel costs, opportunity cost of travel time, length of the trip, time spent at the site etc. Foreigners were excluded in the survey. Respondents were selected covering all seven days to capture the daily variations. Average zonal travel costs were estimated for different visitor zones and regressed against respective zonal visitation rates to derive the demand function. Consumer surplus was calculated by using the derived demand function.

It was revealed that the consumer surplus of Udawalawa National Park in 2013 was 30.05 million Rupees (1USD =127.36 LKR) per year which is 14 times the value of 1996 estimates. Estimated consumer surplus per visit at the revenue maximizing level was 729.49 Rupees which is 10.5 times the estimate of 1996. It is also evident that the legally prescribed fee structure is far below the recreational benefits of the site and promotes over visitation. Findings of the study emphasize the need of periodical re-estimation of values in order to facilitate effective decision making.

The change may be partly due to the price level changes and the effect of other demand shifters such as customer taste, changes in perceived value of natural resources, increased potential consumers etc. Such factors contributing to the change of the recreational value were not examined in this study. Further studies on eliciting such contributors, their relative impacts and the dynamics could be suggested for better policy decisions on natural resource management.

Keywords: Recreational value, Non market valuation, National parks, Travel cost method