Environmental values for Decision Making: A Review of Travel Cost Method Applications in Sri Lanka

M. A. T. R. Kularathne and U. A. D. P Gunawardena[1]

The travel cost method places a money value on recreational sites by estimating the costs of consuming the services of that place. Almost all the parks and protected areas of the country have been subjected to travel cost valuation exercises. However, majority of these studies lacks fundamental considerations of the method leading to questions on the validity of the provided estimates. The present paper reviews different applications of travel cost method in Sri Lanka and with a view of improving the accuracy of the estimates.

For the review, the available travel cost studies have been screened with a view to identify the common problems inherent to these studies. After comparing 12 studies, the following has been recognized as the main problems: limited variables in the travel cost function, low R^2 values and different consumer surpluses for similar recreational sites. The present review then selected five applications of travel cost method and compared the methodology adopted, statistical and analytical approaches, in detail against the state of the art. Travel cost studies of Hakkgala Botanical Garden, Sinharaja World Heritage site, Yala National Park, Wasgamuwa National Park, Udawaththekele Royal National Park have been used for the analysis.

Results of the study showed that most of studies have not considered issues and biases that are common in the information gathering (time period, language, visitor type), defining and estimation of total travel cost, opportunity cost of time. Statistical validities of the estimated equations have given only low priority. Majority of the studies failed to address the most common shortcomings of the method. The presence of such problems means that the estimated values are either under or over estimates of the correct values of the recreational sites. It is recommended therefore to include a sensitivity analysis which includes the possible changes of the final estimates with regards to the variables mentioned above. However, it was obvious that errors could have been minimized if the proper sampling and the standard guidelines of the method had been adopted.

If the consumer surplus values of recreational sites to be used in guiding decision making, it is extremely important that correct addressing of such issues and a set of guidelines regarding such issues are followed in order to improve the validity of the estimates.

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[1] E-Mail: thulaniruchika@yahoo.com