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ECONOMIC VALUATION OF RECREATIONAL ECOSYSTEM SERVICES IN PICNIC GROVE, TAGAYTAY CITY USING TRAVEL COST AND CONTINGENT VALUATION METHODS

Ahl Restel Dominic Rubianes

Faculty of Management and Development Studies,University of the Philippines Open University, Los Baños, Laguna 4030, Philippines

*Corresponding author: alrubianes@up.edu.ph

ABSTRACT – Urban recreational landscapes provide important ecosystem services that support human well-being, tourism, and environmental sustainability, yet these benefits are rarely reflected in market prices. This pilot study estimated the economic value of recreational ecosystem services provided by Picnic Grove, Tagaytay City, Philippines, through the combined application of the Travel Cost Method (TCM) and Contingent Valuation Method (CVM). Specifically, the study estimated recreational demand, consumer surplus, and visitors' willingness to pay (WTP) for conservation and site improvement. Primary data were collected through a structured questionnaire administered to 30 visitors with prior experience visiting Picnic Grove. Recreational demand was estimated using an Ordinary Least Squares travel cost model, while Pearson correlation analysis was performed to examine relationships among visitation frequency, travel behavior, and socioeconomic characteristics. The CVM was used to estimate visitors' stated willingness to contribute to conservation initiatives. The estimated mean travel cost was ₱1,120.78 per visitor, with opportunity cost of time representing the largest component of total travel expenditure. Travel cost exhibited the expected negative relationship with visitation frequency ($\beta = -0.00092$), consistent with recreational demand theory. Estimated consumer surplus was ₱877.78 per visitor, corresponding to an aggregate recreational value of approximately ₱438.89 million annually based on assumed visitation levels. Mean willingness to pay for conservation was estimated at ₱67.10 per visitor, generating an estimated non-use value of ₱33.55 million annually. Combined estimates yielded a preliminary total economic value of approximately ₱472.44 million per year. Although these estimates should be interpreted cautiously because of the study's pilot design and relatively small sample size, the findings demonstrate the applicability of integrating revealed and stated preference valuation approaches for recreational ecosystem assessment in the Philippine context. The study provides preliminary evidence to support conservation-oriented financing mechanisms, sustainable tourism planning, and future large-scale ecosystem valuation studies.

Keywords: contingent valuation, economic valuation, ecosystem services, Picnic Grove, recreational demand, travel cost method

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