



## Section F

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### **Towards improved decision making: Valuation of ecosystem services provided by Pigeon Island National Park, Trincomalee, Sri Lanka**

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Pigeon Island National Park (PINP) is a complex marine ecosystem, which is a part of an extensive system of marine habitats in the Trincomalee area. PINP provides a number of Ecosystem Services that include provisioning, regulating, supporting and cultural services. Although this has been included under the list of conservation, the PINP associated ecosystem is under the risk of degradation due to overexploitation of extractive users and additional pressure by booming tourism activities.

The present study makes an attempt to establish a gross, lower bound value for the conservation of PINP. This study has assessed the willingness-to-pay for conservation of the resource by users, in the form of a hypothetical scenario of village level cooperative society. The assessment was based on surveys covered at households (150) and visitors (170) separately. Key Informant discussions and Focus Group discussions were also held in order to gather qualitative information with the relevant stakeholders. When the average WTP of visitors is extrapolated to an annual basis, it amounts **Rs 60,702,487.68** per year, and when the average WTP of household respondents is extrapolated to the population in Kuchcaveli DS division on annual basis, it amounts to **Rs.1,653,566.40** per year. Secondly, two models were constructed using ordered probit method, and probabilities for each WTP values were predicted. WTP for each individual was generated using obtained probabilities. Average willingness to pay for each sample was calculated using the derived amounts and these values were used to extrapolate and derive a conservation value to the ecosystem. Accordingly, the conservation value as per the extrapolated average WTP was **Rs. 34,872,212.16** for visitors and **Rs. 1,236,091.92** for households.

These amounts can be considered in calculating national income to express the contribution from this pristine ecosystem to the national economy and hence improve the effectiveness of policy decisions.

Keywords: willingness to pay, ordered probit regression, ecosystem services