

( 148 )

## Estimation of non use values of Sri Lankan Leopard (*Panther pardus kotiya*)

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### Abstract

Sri Lankan leopard (*Panther pardus kotiya*) is a key stone species and as the largest predator in the island it possesses a very high value in ensuring the ecosystem balance. The extent of occurrence of the leopard in Sri Lanka is estimated at 37,650 km<sup>2</sup> which is greater than 50% of the area of the country. However the area of occupancy where reproductive adult leopards have been verified as existing is 11,000 km<sup>2</sup>. Although country is assuming to have 834.4 leopards scattered across the island, no single subpopulation is larger than 250 leopards and the population found to be declining due to numerous threats including poaching and human- leopard conflict. This sub species is therefore categorized as 'endangered' in IUCN red list criteria. Consistent negligence of true economic value of endangered species protection has led to ineffective and counterproductive conservation policies which might end up in extinction of such species resulting a great loss to human and the environment.

This study therefore intends to estimate non use value of leopards. A sample of 300 households representing all provinces of the country except North and East was selected. Using contingent valuation method with a Dichotomous choice elicitation format, their willingness to pay (WTP) for non use values of leopards were revealed by face to face interviews.

Results revealed that the mean WTP for non use values of Sri Lankan leopard is Rs 873.00 per annum per household for the proposed 5 year payment period. The total aggregated WTP is Rs million 3875.251 per year for 5 years. The present value of this amount is Rs. million 16159.02 at 10% discount rate. If this amount is re-invested in a capital market it will generate a sum of Rs. million 1615.902 per annum at 10% real rate of interest and this is an indirect estimation of Sri Lankans WTP for non use values of leopards per annum in perpetuity.

The high value for *Panther pardus kotiya* justifies present conservation measures and such values are useful in extended cost benefit analysis of future development projects which might affect the leopard habitats.

**Key words:** *Panthera pardus kotiya*, non use value, CVM