

**ECONOMIC VALUATION OF SELECTED DIRECT  
USES OF BOLGODA LAKE:  
A CONTINGENT VALUATION APPROACH**

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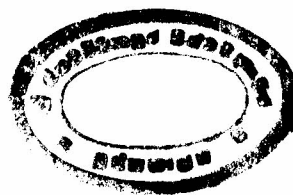
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# **ECONOMIC VALUATION OF SELECTED DIRECT USES OF BOLGODA LAKE: A CONTINGENT VALUATION APPROACH**

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## **ABSTRACT**

Bolgoda Lake is known as the largest fresh water body in Colombo Urban Area (CUA) and situated at the Southern boundary of CUA. It covers 1,245 hectares. There are 14 Divisional secretariat (DS) divisions and 105 Grama Niladary (GN) divisions Bolgoda Lake lies along the highly popularized townships.

Bolgoda Lake currently provides a variety of environmental services such as natural environment for fisheries production and estuary function; ground water recharge, potable water supply; recreation/ tourism; and natural biotic habitat. In CUA, there are very few o Lakes like Bolgoda, which provides aesthetic values for the urban environment. Environment of the Bolgoda Lake is threatened by the disposal of industries, hotels, domestic liquid and solid waste, agricultural runoff, sedimentation and congestion due to recreational uses. However, there will be an increasing demand for the environmental services produced by the Bolgoda Lake.

Objectives of the present study are to identify the environmental benefits of the Lake and estimate economic value of selected (significant) environmental benefits. A pilot survey was carried out and five major user groups were identified; Fishermen, Hotel owners, Boat owners, Recreational users ( for swimming and hotel visiting) and indirect users that grouped as Other user group. Selected study area for the present study belonged to five GN divisions from Moratuwa and Panadura DS divisions.

Contingent valuation method was applied to estimate the economic value of the Bolgoda Lake. A questionnaire survey was carried out to elicit the WTP values of the users. Sample size was restricted to 78 responses.

Depending on the WTP values, the 5 user groups were regrouped into two categories, namely User I (heavy dependency) and User II (less dependency). WTP values per household per year for the User I and User II are Rs.18, 600 and 514.3 respectively. Total economic value of the Bolgoda Lake for the study area is Rs. 84,192.7 per hectare per year and US\$ 809.55 per hectare per year. Total economic value of the Bolgoda Lake could not be obtained, as the sample mean will vary from place to place due to variation of the availability of identified user groups.

Regression analysis was carried out to identify the socio economic characteristics of the users that affect the WTP value of the users. The results were consistent with the theory.



In the present study only the environmentally friendly users were considered since less availability of the other users particularly use of Lake as a sink for disposal of wastes.

It was clear that the Bolgoda Lake is a valuable aesthetic asset in the CUA and it should be judiciously managed for sustain the provision of environmental services.