

**ASSESSMENT OF ECONOMICAL VALUE
OF URBAN WETLAND**

**A CASE STUDY BASED ON THALANGAMA
URBAN WETLAND**

SUDARSHANI WIDANAPATHIRANA

**“Dissertation submitted in partial fulfillment of the requirements for the Master of
Science Degree in Environmental Science of the OPEN UNIVERSITY IN SRI LANKA,
NAWALA, NUGEGODA**

2016 December

ABSTRACT

Economic valuation of wetland ecosystem goods and services aims to investigate public preferences for wetlands and the natural resources in monetary terms and it aids in quantifying the direct and indirect benefits that people derive from wetlands.

Thalangama wetland is to be valued for ecosystem goods and services through this research. Valuation of Thalangama wetland is an important step forward towards the economic valuation and conservation of wetlands in Colombo in Sri Lanka. The objectives for this study were to identify the current ecosystem services provided by the wetland, quantify the values of wetland resources (goods and services) and to determine the economic dependency on the wetland of the people living in the surrounding areas.

In this study, the Total Economic Valuation approach was used which concentrated on direct and indirect use values of the wetland ecosystem services with more emphasis on direct use values. The Market Price technique was used to estimate the direct use value of wetland ecosystem goods and services and Contingent Valuation Method was used to solicit the willingness to pay for the conservation for biodiversity.

The data were collected through focus group discussion, key informant interviews and the household survey as well as field investigations. The value of Thalangama wetland was assessed in terms of Gross Financial Value (GFV), Net Financial Value (NFV). The research findings have revealed that the contribution of the wetland to the surrounding communities has an estimated annual value of Rs.29.40M which translate to Rs.0.25 M per ha/year (GFV). The results show that crop production and livestock production each contributes 78% and 11% respectively to the GFV. Willingness To Pay for the conservation of biodiversity was estimated at an annual aggregate of Rs.24.70M. The households living around Thalangama depend on the wetland for socio economic livelihoods. The results indicate that the annual mean income per household is Rs.24,197.00 which is accrued through farming, and harvests of wetland goods.

Further the result revealed that the Annual Total Economic value of Thalangama wetland at present condition is Rs.54.10M. This comprise with 54% from Direct Use Value of the wetland and 46% from Indirect Use Value of the wetland. According to the calculation Annual Total Economic value of the urban wetland in Colombo, Sri Lanka received as Rs. 0.46 M / hectare. With associating the other studies on wetland valuations in the world this wetland has comparatively high value.

Even though there are many organizations involving in this wetland activities, no active government institutions in sustainable resource use and management of this wetland.