

**Environmental issues associated with the environmental protection area of
Thalangama tank in the Western Province of Sri Lanka**

N. M. L. Radhika^{1*} and U. K. G. K. Padmalal²

¹Central Environmental Authority, Battharamulla, Sri Lanka

²Department of Zoology, Open University of Sri Lanka

*Email: lakminiradhika@gmail.com

Thalangama tank is considered as one of “the shelters for animals and plants inhabiting in and around the city of Colombo” of Sri Lanka, and declared as an Environmental Protection Area (EPA) in 2007. It was built by the great king Parakramabahu VI and is a unique remnant of the historic past. At the time of the survey (June and May, 2009), this valuable wetland was under threat due to the various activities. This study was carried out with the objective of studying the environmental issues associated with the EPA of Thalangama tank. During this study, a pre-tested questionnaire was adopted to gather socio-economic data from the villagers and field visits were also conducted for two months. Five major environmental issues have been highlighted at five locations of EPA. The selected locations were the boundary of Depa Ela, Northern and Eastern boundaries of Thalangama tank, connecting canal of Thalangama tank and Ewarihena wewa and North-Western and Northern boundaries of Ewarihena wewa. The major environmental issues identified were spreading of invasive plant species (*Annona glabra*, *Eichhornia crassipes*), improper disposal of solid wastes, water pollution, inappropriate visitor use and poor community participation in environmental management. The ranking system of the issues was consisted of six levels according to the severity of the issue as very low, low, moderate, moderately high, high, and extremely high. Spreading of invasive plant species was extremely high along the North-western and Northern boundaries of Ewarihena wewa, high along the Eastern boundary of the tank and along the boundary of Depa Ela, moderately high along the connecting canal, and moderate along the Northern boundary of the tank. Improper disposal of solid wastes was moderately high along the Eastern boundary and the North-Western and Northern Boundaries of Ewarihena wewa, moderate along the boundary of Depa Ela, the Northern boundary of the tank and along the connecting canal. Water pollution was high along the boundary of Depa Ela, moderately high along the Eastern boundary of the tank, connecting canal and the North-Western and Northern boundary of Ewarihena wewa, but moderate along the Northern boundary of the tank. Improper visitor use was moderately high along the Eastern boundary, moderate along the Northern boundary, low along the connecting canal and along the North-Western and Northern boundary of Ewarihena wewa, but not prominent along the boundary of Depa Ela. Issues arisen due to poor community participation was high along the North-Western and Northern boundary of Ewarihena wewa, moderately high along the Eastern boundary of the tank, and moderate along the boundary of Depa Ela, along the Northern boundary of the tank and along the connecting canal. Therefore, strong sectorial coordination is required to strengthen the village wetland management committee to get the maximum community participation to protect the natural resources of the EPA of Thalangama tank in a sensible way.

Keywords: Environmental issues, EPA, Thalangama tank