

Impacts of Anthropogenic Activities on Walauwewatta Waturana Fresh Water Swamp Forest in Sri Lanka

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Swamp forests are late succession stage of a freshwater marsh ecosystem and it is the rarest wetland type in Sri Lanka. Swamp forests are rich in biodiversity, thus providing a number of ecosystem services. The Walauwewatta Wathurana has been identified as most the dynamic fresh water ecosystem in Sri Lanka. Endemic and rarest flora and fauna species are recorded within this forest and the species of *Stemnoporus mooni*, *Mesua stylosa* are point endemic to this forest. These rare forest ecosystems have been subjected to degradation over the past decades due to various reasons, especially due to anthropogenic activities. A study was conducted to explore the magnitude of the impact caused by anthropogenic activities. A household survey was conducted using a structured questioner, Participatory Rural Appraisals (PRA) and discussions were carried out to gather information from adjacent people who live closer to the swamp. Data was analyzed by using simple statistical parameters. It was revealed that a large number of activities were carried out surrounding the forest by the adjoining communities directly or indirectly related to their livelihoods as well as for their daily household needs. 92.3% of the population engaged in agriculture. Communities earn additional income by depending on the forest for sand mining (27%), rattan industry (18%), fishing (17%), and bamboo industry (13%). 73.33% of farmers use agro-chemicals. Species richness and abundance have been decreased over the past two decades due the unsustainable fishing activities, contamination of agro-chemicals as well as chemical effluents of rubber based industries located around the forest area. Therefore the Wathurana fresh water swamp forest has been subjected to degradation due to anthropogenic activities. Conservation strategies should be strengthened in order to maintain the sustainability of the ecosystem services provided by this freshwater swamp forest.

Keywords: anthropogenic activities; degradation; ecosystem; fresh water swamp forest