

Impact of Anthropogenic Activities on Rural Livelihoods in Bundala Ramsar Wetland

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Abstract

Bundala Ramsar Wetland is the first Ramsar site in Sri Lanka. It provides multiple economic activities including fishing, agriculture, livestock rearing, and tourism. Lunugamwehera irrigation scheme was introduced by the Government of Sri Lanka adjacent to the Bundala Ramsar Wetland. This study attempts to find out the long-term impact of this development project on the livelihood activities of the wetland dwellers at Malala lagoon in Bundala Ramsar Wetland. Snow ball sampling technique was employed to select 60 sample units. Mixed methods were employed including a questionnaire survey (n=60) and in-depth interviews (n=10) for primary data collection. The results show, fishing (55%), agriculture (17%), eco-tourism (12%), and livestock rearing (8%) as the main income generating activities in the area. Most of these are lagoon-based economic activities for the villagers with an average monthly income of 20,000 LKR. Thus, the productivity of the lagoon is crucial in attaining sustainable livelihood opportunities. However, 46 respondents (77%) have experienced an income reduction compared to the past 10 years. Water pollution, and anthropogenic activities with adverse impacts, have been reported by 53 % of the respondents as one of the main reasons for income reduction. Climate change (21%), government rules and regulations (18%), and reduced demand for tourism (12%) are the other factors. Based on the survey Lunugamwehera irrigation scheme has negatively affected on the lagoon ecosystem (p=0.00016). In depth interviews further affirmed that fishing, eco-tourism, and livestock rearing have been threatened in the area. This concludes, that the recent development activities have negatively affected on the ecosystem and sustainability of lagoon environment and the entire Bundala Ramsar Wetland. Hence, ecosystem based adjustments are needed to regain the productivity of the lagoon for the betterment of wetland dwellers.

Keywords: Anthropogenic Activities, Livelihoods, Water pollution, Wetland

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