



The Pathetic Human Intervention of an Ancient Irrigation Tank: a Case Study on the Existing Development Around the Yode Wewa in Thissamaharamaya Divisional Secretariat in Sri Lanka

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Abstract

The dry zone covers much of low lands of Sri Lanka and receives an annual rainfall lesser than 1750 mm. This rainfall feeds about 233 major and minor ancient reservoirs and more than 10,000 small ancient village tanks in the dry zone where dominates a low water retention capacity of the unique soil group (reddish brown earth) most part of the dry zone. These tanks and reservoirs in the country maintain higher ground water table so that water is accessible for wildlife and large scale agriculture. Up to very recent times, the agricultural activities and settlements of the dry zone were always associated with tank irrigations. Due to lack of government intervention, **cascades** of the **tank catchment** appeared to be seriously affected by the current **land use pattern** of these settlements. Soil erosion has increased the sedimentation of the tank beds and incompatible land uses, pesticides and many other human activities has hindered the capacity of the tank as well as quality of the water. Recently it is common practice that large tanks in dry zone are over spilling and large part of the commanding area affected by sudden floods ever than before. These pathetic situations emphasize the importance of ancient irrigation technology. There are some evidences that the decisions taken to the development programs implemented at the remote areas are seriously affected to the existing **ecosystem** of the tanks in the area, after a time period. The objective of this study was to conduct a qualitative assessment of adverse effect to the **Yodawewa** in Thissamaramaya as a part of **eco system**, due to the existing land uses. This study was confined to the Yodawewa, its cascades in catchment and existing commanding area. The secondary data collection were done on two aspects. The land use analysis was based on field survey data. The data on weather conditions and tank details were obtained from the Department of Meteorology and Irrigation Department. Published topographical and thematic maps were taken as supportive documents. Two SWOT analysis have been carried out to investigate how the indigenous people manage their water and tank as a part of the eco system with the cultivations and their settlements comparing with Five human activities which may be responsible for damaging the sustainability of the Yoda wewa. The study reveals that social activities and unplanned physical developments taken place in the area during the previous three decades, has created severe effect on the eco system of the Yoda wewa and suggest to consider how to apply indogenous peoples' knowledge to the present development projects as a legacy of the ancient hydraaulic civilization.

Keywords: *Land Use Pattern, Eco System, Cascades, Irrigarion Agriculture*