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ECOSYSTEM APPROACH TO MANAGEMENT OF TRADITIONAL VILLAGE TANKS IN SRI LANKA: A REVIEW

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ABSTRACT

Traditional village tanks in Sri Lanka's dry zone are reputed to perform various eco-system functions to keep the local community in equilibrium with the natural environment. Studies have shown that decades of well intended though misinformed infrastructure development at village level have often compromised many of the ecosystem control features built into the tank environment. At the same time, modern economic, social and political influences have changed the attitudes, value systems and lifestyle aspirations of local communities resulting in a loss of knowledge and appreciation of the beneficial value of the traditional tank environment. This paper reviews the ecosystem functions of traditional village tanks situated in the dry zone of the country by classifying the uses and functions in economic (ie. agriculture, livestock, fishing), ecological (ie. ground water recharge, prevention of soil erosion and floods) and socio-cultural perspectives (ie. domestic, leisure, festivals). There is concrete evidence that water tank functions and uses are not independent from each other and for one element can share socio-cultural, economic and ecological aspects. For example rice cultivation has both ecological and economic uses. The ecosystemic resilience that water tanks provide in case of disturbances (like droughts or floods) involves the recuperation of the society, the economy and the natural habitats and species. Thus this ecological function has also an impact in the economy and the society. The paper brings on the need to resort to integrated management in water tanks as they are complex ecosystems that requires it.

Keywords: Traditional village tanks, Ecosystem functions, Integrated management