

The consequences on the water quality of the Tissa Wewa tank in Anuradhapura

Thilakarathna N.D.C.J¹; Ekanayaka E.M.M.G.S.K.K²; Jayawickrama G.G.H³ Abstract

Sri Lanka had the most complex irrigation system of the ancient world. Most of the great reservoir tanks still survive today. Thissa wewa is one of the unique features of the Anuradhapura district. Mainly it provides drinking water for more than 15,000 people living in 15 villages and governmental and private sector institutions in the Anuradhapura town area and is used for religious purposes. Exceeds one lakh to five pilgrims and others reach this place for various reasons. As a result of an excessive amount of their urine, and E-coli bacterium is added to the tank water. Due to that reason it mainly affects access to drinking water and other purposes. This study mainly investigates the consequences of the water quality of the Tissa Wewa. As a study area, selected Tissa Wewa and Mihindupura villages. 30 questionnaires given to villagers and pilgrims and interviewed 3 responsible institutions selected through a convenient sampling method. And by prosecuting secondary data also. Water consumers have to pay extra money for drinking water additionally tap line water. The present lake is polluted due to fertilizes, improper waste dumping, wastewater discharge, recreational activities are some of them. This paper also discusses the Impacts on aquatic life, cultural value, accessibility of drinking water, health effects especially Kidney Disease, economy, etc. The treatment plant is a mixed high level of cleaning agent for separate chemicals from the raw water and it is very harmful to the human body. This study ends by discussing new solutions to overcome those problems. Not polluting, appoint particular officers to protect that lake, policy and regulations must be hardened, proper solid waste management practices, proper wastewater treatment techniques, new regulations, regular quality testing programs with the support from CEA, interference of religious. To protect such kind of natural and cultural valuable lake systems should be paid adequate attention to responsible institutions and officers in Sri Lanka.

Keywords: Tissa wewa, impacts, water quality