

THE PROBLEMS IN WATER RESOURCE MANAGEMENT DUE TO WATER SCARCITY IN SENANAYAKE RESERVOIR: SPECIAL REFERENCES TO SELECTED GNDs OF AMPARA DISTRICT

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Water is a precious natural resource, vital for sustaining all life on Earth. It is impossible to get an equal amount of water throughout the year. Water scarcity is one of the factors that pose challenges for Water resource management in the Senanayake reservoir. As a result, it has been increased in Valathaputti-1, Buddangala and Nintavur-23 GNDs of Ampara district. The objective of this study was to examine the problems in water resource management due to Water scarcity in the Study area. Both primary and secondary data collection methods were utilized for this study. 150 samples were selected under the random sampling method from three GNDs of Sammanthurai and Nintavur DS divisions. In addition to that, primary data were collected by conducting interviews and field observations. Secondary data was collected from relevant authorities. All the data were subjected to analysis with SPSS 21.0, Arc GIS 10.3 software and MS Excel. It was found that rainfall and temperature variability have directly affected the Water scarcity in the Senanayake reservoir. In addition, deforestation, population growth and improper maintenance of canals have also caused water scarcity in the area which in turn has caused negative socioeconomic and environmental impacts on the Study Area. Finally, the study found various challenges behind water resource management due to water scarcity. Lack of storing capacity of the reservoir and tanks, land cover and land use changes, shortage of supply of water through the Senanayake reservoir, increasing demand for water in the study area, and lack of knowledge on environment assessment by the people were found to be challenges for water resource management in the area. As a solution, the research recommends establishing the rain harvesting system in the study area. The study recommends proper management and maintenance of the quantity and quality water under different users through proper awareness.

Keywords: Water scarcity, Water Resource Management, Reservoir