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**SOCIO ENVIRONMENTAL INTERACTION IN WATER QUALITY
VARIATIONS
CASE STUDY FROM COASTAL VILLAGES OF AMPARA
DISTRICT**

A PROJECT REPORT PRESENTED BY

THAVAYOGANATHAN SUMANENTHIRAN

To the Board of Study in Environmental Science of the
POSTGRADUATE INSTITUTE OF SCIENCE

*In partial fulfillment of the requirement
for the award of the degree of*

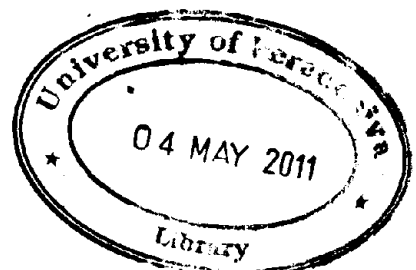
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Water is a valuable resource for social system because of its wide spectrum of functionality in the socio, environmental and biological systems. Coastal environmental system is highly sensitive to water quality variation because of the environmental functionality. This study revealed the 'the variation of the water quality in the local environment is caused by natural and social factors and the cumulative effects of this phenomena cause the socio environmental interaction and affect the water quality variation of the two coastal villages of the Eastern province of Sri Lanka. In order to analyze physicochemical parameters atomic absorption spectroscopy and photochemical spectroscopy methods were adopted and social impact assessment methodology was used to find the relationship of social factors of the study area. Using simple descriptive statistics the water quality variations was assessed and tabular matrix was used to compare the socio environmental interaction.

From this studies following conclusions can be drawn about the socio environmental interaction of water quality variations in the eastern province coastal villages taken into consideration for the study; (1) The water retention structures (lagoons and tanks) are the key environmental factors pertaining to water quality because of its self assimilation, ground water recharging as well as draining capacity. (2) Soil rock minerals and sea are the other environmental factors of water quality variations. (3) Social conflict and war is a key social factor determining the access of available water and development of the water resources. The conflict situation caused the population influx to the small system and finally available water is over extracted. (4)Waste dumping, sewage disposal and land filling on the tanks beds are the other social factors affecting the water quality. (4)Through these processes socio environmental interaction of water quality variation evolve in the coastal socio environmental systems considered.