WASTEWATER GENERATION IN THE BATTICALOA REGION

M. Sugirtharan and T. Thiruchelvam

Department of Agronomy, Faculty of Agriculture, Eastern University, Sri Lanka

ABSTRACT

Waste accumulation is a serious problem to the environment; especially in some places of the Batticaloa district. The wastewater generation and its accumulation over the surface cause severe hazards. Therefore, a study to find the pollution load by wastewater to the environment and to determine remedial measures to reduce pollution of the environment is very important.

In this study the main wastewater generating sources were identified from the study area viz. divisional secretariats of Manmunai North, Kattankudy and Eravur town where the amount of wastewater generation seemed to be high and a potential threat to the environment. The total volume of wastewater generated from the sources and characteristics of the wastewaters were determined during the period of July to October 2001. From the data obtained, the Total Organic Loading Rate (TOLR) to the environment was calculated.

Results obtained in this study clearly indicated that all types of wastewater showed high COD (244 - 2987 mg/l) and solid contents. And among the wastewater sources analyzed, prawn farms and rice mills were the most important sources, which produced higher volume of wastewater (nearly 328,000 m^3/year from prawn farm and 152,000 m^3/year from rice mills) and had higher TOLR (approximately 520,000 kg COD/l/year by the prawn farm and 303,000 kg COD/l/year by rice mills) to the environment.

Key words: chemical oxygen demand, photosynthesis, pollution, wastewater.