among the fishes and ...

SOME EFFECTS OF THE GROWTH OF THE TOURIST INDUSTRY ON THE HIKKADUWA MARINE SANCTUARY.

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The Hikkaduwa Reef is one of the major tourist attractions of Sri Lanka for quite a long time. Over the years, along with increase in the number of tourists, hotels and guest houses have been built in a haphazard manner with poor planning and with little regard to the effect of such development on the reef and users. The waste generated at these hotels and guest houses especially those located on the beach along the sanctuary is a subject for concern since indiscriminate disposal of effluents either towards the beach or even into underground pits can have detrimental effects not only to the reef in the long term but also on ground water reserves.

A survey of hotels in the area was done to determine the extent of waste generated as well as the methods of disposal of such waste. A questionnaire was prepared and responses solicited from the hotels' management. It sought to determine the type and quantity of chemicals used for cleaning and disinfection, the number of resident tourists, room capacity, mode of disposal of liquid and solid waste , quantity of water consumed etc. Results indicate that except for one hotel none of the hotels have a treatment process for the effluents generated. There is direct and indirect release of effluent into the sanctuary. Calculated values for Bio-chemical Oxygen Demand generated due to resident tourists along hotels in the sanctuary border varied between 3.88 and 14.53 Kg/day; Nitrogen Load was 1.44 to 5.38 Kg/day; and Phosphate load varied between 0.29 and 1.08 Kg/day, with peak occupancies in January/February. Release of effluents to porous soakage pits, overflowing of concrete tanks, cracked septic tanks, and deliberate pumping of sewage into the sanctuary have been noted. It is hoped that the threshold of the assimilative capacity of the sanctuary will not be reached with indiscriminate and irresponsible activities of this nature.

An acceptable storm water drainage system, rehabilitation of existing septic tanks, a study of the economic feasibility of separation of night soil and other domestic liquid wastes and subsequent treatment of night soil only and alternatively, the introduction of an integrated sewage treatment plant is considered. Proper, systematic planning of all future development and adequate control of current activities is recommended.