

# GREEN PRODUCTIVITY BASED WASTE MINIMIZATION STRATEGIES IN SRI LANKAN HOTEL INDUSTRY

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The coastal areas of the country are the most favorable for the hotel industry for a number of reasons, as a large number of tourist hotels have been established in the western, southwestern and southern coastal areas of Sri Lanka. They are placed in different star classes according to the facilities offered. Irrespective of the resources, consumption of a tourist hotel is comparably higher than that for other service industries. In view of the increase in the number of hotels, resource limitations, waste generation and the negative effect on highly sensitive coastal environment, regulatory authorities in Sri Lanka have decided to enforce stringent environmental regulations on the hotel industry.

Given the strict conditions relating to environmental protection and the economic strains due to high competition and costs, hoteliers are considering profitability increasing strategies. Following the Ecologically Sustainable Industrial Development (ESID) concept based on Green Productivity strategies a few tourist hotels were studied to evaluate their waste generation levels.

Two such hotels located on the western and southwestern coast were subjected to waste audits based on Green Productivity principles. The main focus was on energy, water and other material utilization levels and the corresponding waste generation levels. Following the waste audit, a selection of waste minimization strategy options was considered including;

- Electrical energy saving by modifying the lighting system and load reduction; substitution of solar energy for water heating; Thermal load reduction in HVAC system and demand management,
- Water consumption level reduction through simple consumption reducing strategies;
- Reusing of gray water at different and suitable needs.
- Reusing and recycling of material, Procurement system administration.

Beside these a large number of simple strategies were also proposed by the hotel employees. The strategies were grouped according to the investment involved as no/low cost, medium cost and high cost investments. A cost benefit analysis was carried out and most of the strategies were implemented successfully, to reduce the impact on environment while increasing the profitability of the organization.

Visible economical benefits achieved through GP principles were;

- a reduction in electrical energy consumption by 10 – 20%
- a saving in thermal energy sources by 5 – 10%
- saving in water consumption by 15 – 20%