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Resource efficient cleaner production (RECP) as a potential tool for greening the hospitality industry in Sri Lanka

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Abstract

Environmental pollution, changing patterns of consumption and production and increased sustainable development concerns create new challenges for companies worldwide. The hospitality sector activities are also strongly linked to the three pillars of sustainable development: economic competitiveness, social importance and environmental impact. Integrated and new approaches for materials and energy management are required to follow sustainable economic and ecological objectives and to succeed in the global. The concept of cleaner production suit the ideal business environment to tackle the challenges of the changing global context and offers concrete solutions for increases efficiency and reduces risks to humans and the environment. The hotel sector is a very important sector in current Sri Lankan economy. However it was identified that the industry is one of the highest consumers of energy and natural resources. According to the Sustainable Energy Authority the total hotel load is estimated to be about 4-5 % of the total demand of the national grid. The average energy cost of a typical hotel is around 25% of its total operational cost.

Comprehensive assessments were conducted in selected hotels according to the UNIDO Cleaner Production (CP) methodology. The study showed that the significant environmental issues in the context of daily hotel operations includeWater consumption and wastewater generation, Solid waste management and Air quality (indoors and outdoors). Also through an energy audit it was found that the key energy consuming areas of hotels include lighting, air conditioning, cooking etc. Air conditioning accounts for 50% of total energy consumption in a hotel. There are various practical CP options for hotel sector to reduce its impact on the environment and achieve cost savings which is important for industry performance in a competitive business environment. This study helped to identify CP options that can be implemented in hotel sector in general. Most of the CP options identified can be implemented with relatively short payback period. The findings of the case studies showed that on average about 25% of the water consumption, 20% waste generation and 20 % electricity consumption can be reduce in the five hotels studies.

Keywords: Sustainable tourism, Green Hotel, Cleaner Production, Industrial Ecology