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Evaluation of Performance of Environmental Protection License of Rice Mills of the North Central Province

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Abstract

Improper management of industrial pollution can result in serious damage to the environment and as well as to human health. Environmental Protection License (EPL) is a regulatory tool under the NEA to control the discharge of effluent, emission and deposits of solid waste. Present study was carried out to assess the effectiveness of EPL of rice processing industry in the North Central province and to investigate the factors affecting adoption of pollution control by the industries. Data were collected from 100 rice mills from two divisional secretariats (Thamankaduwa and Hingurakgoda) from Polonnaruwa district and three divisional secretariats (Kekirawa, Nachchaduwa and Thalawa) form Anuradhapura representing different scales of the industry. Information on production capacity, milling technology, management of solid waste, waste water and emissions, adoption of EPL, expenditure on pollution control were collected using a pretested questionnaire. Results indicate that production capacity of rice mills varied from 0.3 to 150 metric tons per day for type A and B industries. Total waste management cost varied from LKR 165 million to 12,000. Although majority of the mills had modern mills, most common waste water treatment method was open discharge. Fly ash control was done mainly with ash rooms. Only 60% of the operating industries (of A and B categories) have obtained EPLs. A multiple regression analysis indicates that total waste management cost was mainly influenced by the factors such as treatment method, production capacity, land extent and the type of mill. It was identified that information gaps regarding best available technologies act as barriers of adoption of pollution control which could be mitigated by supportive consultation services and close monitoring.

Keywords: Environmental Protection License, Rice mills, Pollution control