Techno-economic Analysis of Energy Efficient and Environmentally Sound Technologies in the Asian Small and Medium Industry Sector

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Abstract

To promote energy efficient and environmentally sound technologies (E3ST) in the small and medium scale industries (SMI) in China, India, the Philippines and Sri Lanka, a study was carried out to assess the important criteria from the view of the industry stakeholders. Three criteria, namely, technological feasibility, financial viability and environmental benefits and the indicators for each criterion for techno-economic evaluation of the E3STs were analyzed. The results lead to prioritization and ranking the identified criteria and indicators for different SMIs considered - foundry, textile, tea, brick and desiccated coconut. The results indicate that among the criteria, financial viability is considered to be the most important criteria in China, India and the Philippines, while technological feasibility is the most important in Sri Lanka for techno-economic evaluation of energy efficient and environmentally sound technologies. Environmental benefits seem to be the least important criteria in the study countries.

1 Introduction