ENVIRONMENTAL REFORM OF FOOD-PROCESSING INDUSTRY: AN INDSTRIAL ECOLOGY APPROACH ON BIEN HOA 1 INDUSTRIAL ZONE, VIETNAM

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ABSTARCT

In a traditional model of industrial activity, individual manufacturing processes use raw materials and generate products plus wastes. In an industrial ecosystem, the consumption of energy and materials is optimized, waste generation is minimized and the effluents of one process serve as raw material for another. The goal of an industrial ecosystem is to improve the economic performance of the participating companies, while minimizing their environmental impact. Components of this approach include new or retrofitted design of parts of infrastructure and plants, pollution prevention, and efficient energy use. By exploring the components of industrial ecology, this study tries to apply its principles to determine the degree to which food-processing companies in Bien Hoa 1 IZ, Dong Nai, Vietnam could be pushed towards a (close to) zero waste industrial ecosystem.