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## Green Design and Planning Resolutions for an Eco-Industrial Town: A Case Study of Polluted Industrial Estate in Rayong Province, Thailand

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### ABSTRACT

Map Ta Phut was designated for development in national policy as an Eastern Seaboard Industrial Port. It is located in Rayong Province with growing demand from Eastern Seaboard industries and is heavily affected by serious environmental problems as a "pollution control zone". While the Joint Standing Committee on Commerce, Industry and Banking, representing the national business sector, claimed that the area generated total revenues of 1.1 trillion baht per year, or 11% of Thailand's gross domestic product, and employed more than 100,000 workers, the declaration of the area as a pollution control zone severely limited investment and business operations. Thus, controversies arose among the investment business sectors, the residential sector (residents have been affected by a decrease in their quality of life and health) and environmental concern sectors. This paper aims to find an efficient and practical mitigation practice to balance the purposes of the industrial port with protection of surrounding communities and natural resources. The author will apply physical design and planning such as the application of "buffer zones", "greenbelts", "set-back", "green corridor", "green wall" and "protection strips" along with environmental measurements such as the Air Pollution Tolerance Index (APTI), which can be adapted for pollution protection as best practices of landscape architecture.

### KEYWORDS

Air Quality; Eco-Industrial Town; Buffer; Pollution Protection; Landscape Indicator

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