

# Greening Pattern of Urban Industrial Buffer Zone-A Case Study of Ta-li Industrial Park

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## ABSTRACT

Due to the facts that a large number of industrial parks have been developed, and that urban areas are expanding as industrial zones develop, urban areas are becoming adjacent to industrial zones. As a result, now we cannot take up the attitude of “not in my backyard” anymore when facing the problem of industrial buffer zones. Moreover, the plan of industrial buffer zones should concern not only the safety of the neighborhood, but also the needs of neighboring residents and employees. Therefore, this study aims at investigating an ideal greening pattern of industrial buffer zones from the viewpoint of the needs of residents and employees. This study was conducted at the Ta-li Industrial Park located in Taichung County, and we surveyed 132 neighboring residents and 108 employees of the industrial zone in order to investigate their views of the greening functions of industrial buffer zone and their preference regarding the greening pattern. First of all, by employing a chi-square analysis, we explored the influence of the respondents' personal attributes on their opinions of the greening functions of the industrial buffer zone as well as of the greening pattern. Next, a one-way analysis of variance (one-way ANOVA) was conducted to see if there exists any prominent difference between various functions as well as patterns. Finally, an independent samples t test was used to analyze the differences between neighboring residents and employees of the industrial zone regarding the views of the greening functions and the preference of the greening pattern. The results reveal that, firstly, personal education background and occupation have a more prominent influence on how a person views the importance of the greening functions as well as on his preference of the greening pattern. Secondly, the respondents think that “disaster and pollution prevention” and “environment and ecology protection” are relatively important among the greening functions of vegetation buffer strips at industrial zones, and they prefer a moderate greening pattern. Thirdly, neighboring residents of the industrial zone express more concern on the functions regarding environment and ecology protection and have a stronger preference for a moderate pattern in comparison with employees of the industrial zone. Based on the analysis results, we reached the following conclusions: in installing an industrial buffer zone, functions of “disaster and pollution prevention” and “environment and ecology protection” should be regarded as of the utmost importance. Also, a moderate greening pattern, which incorporates artificiality and naturalness, should be chosen. Therefore, we suggest that functions of “disaster and pollution prevention” and “environment and ecology protection” should be emphasized and a moderate greening pattern should be implemented in installing vegetation buffer strips whether in the renovation of old industrial zones or in newly developed ones so that residents would enjoy living next to the vegetation buffer strip of industrial zones.

Keywords : 都市型工業區 ; 緩衝綠帶 ; 綠化功能 ; 綠化形態

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