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THE PLANNING AND DECISION-MAKING MODELS IN ECOLOGICAL ENGINEERING APPLIED TO TAIWAN MID-WEST COAST

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Abstract

The aim of this study is to identify the influential factors which affect the planning and construction process in coastal ecological engineering. Through the application of AHP to analyze weight, it applies the data obtained from descriptive statistics as a reference in decision-making. Research methods are by means of expert questionnaire. To understand the same and different points of views from the experts and scholars, then according to different purposes it uses the results of this study in period of planning and decision-making process. For promoting coastal ecological engineering application in Taiwan mid-west, the study can also provide more scientific and convincing approaches. The results find out that due to safety requirements, experts and scholars are the highest standard on strength impact and implementation difficulty. However, increasing safety requirements for eco-friendliness is unfavorable. It needs some countermeasures to improve the habitat stability. In additional to the safety, the results also indicate that for habitat stability requirements can be used as an important reference for decision-making. Otherwhile, if coastal ecological engineering is focused on mutually beneficial coexistence between human and the environment, the different decision-making model will be considered.

Key words: eco-efficiency, eco-friendliness, ecological engineering, eco-services, sustainable development

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