

# 應用GIS探討新竹縣海岸保護區劃設之研究

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## 摘要

Taiwan is surrounded by sea and has coastline in a total length of 1,500 km. With the global environmental changes caused by climate anomalies, the land around the coast due to inappropriate human development, ecological environment resources are gradually disappearing. To protect geographical environment resources in coastal areas and maintain a balanced ecosystem has become the focus of contemporary coastal ecological and environmental protection work. However, because coastal environment is diverse and complex, besides employing integrated coastal management tools in proper spatial planning, how to achieve the optimal resource allocation model in the aspects of ecology, culture and landscape is an important subject for Taiwan's coastal planning policy. The designation of coastal conservation areas is mainly for implementing of coastal biological habitat protection and maintaining biodiversity to facilitate the coastal environmental protection and restoration, as well as resource conservation, development and utilization. Facing increasing environmental consciousness in recent years, the central government has been stressing the importance of a balanced coastal ecosystem and promoting the sustainable development of coastal areas by advocating the coastal law, which covers the designation of coastal conservation areas. The study, based on the coastal law (draft), is mainly to study and establish the basis of designating primary and secondary conservation areas. This study takes references to the definitions of coastal conservation area by different countries, integrates it with land suitability analysis, and establishes the analytical model for designating "coastal conservation area" and applies it to Hsinchu coastal environment to verify the validity and feasibility of the research methodology. The results can be used to consolidate the spatial allocation with respects to the ecological environment and cultural landscape

resources with high conservation values in Hsinchu County coast areas, and define the range of coastal conservation area, and identify the protection targets, to reduce the impact of coastal development to ecological environment, and serve as references to coastal ecological conservation research.

關鍵字：Coast, Ecological Environment, Geographic Information System, Coastal conservation area