

# 新竹縣遊憩型自行車路線評選之研究

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## 摘要

Recreational cycling and bicycle tourism have increasingly gained their importance in the hierarchical order of development in Taiwan. Bicycle is not only a green transportation mood but also an attraction in scenic area. Both center and local governments are making efforts to promote cycling in Taiwan. Bicycle facilities have become one of the major recreational attractions for many cities and counties. The relationship between tourism, recreation and green transportation development is an inseparable one that affects not only the local economy, but also nation-wide competitiveness in many counties.

Hsinchu county government has planned and designed 27 cycling routes in year 2007. This research connected 27 cycling routes into 3 bikeway systems, namely coastal bikeway system, Chupei bikeway system, and lakeshore bikeway system. Each system will cost 13.5 million, 16.79million, and 15.8million New Taiwan dollars to complete these three projects. Therefore, it has become a professional decision for local government to decide the construction priority. It is necessary for the local government to evaluate and select the adaptive planning priority due to the limited budget and resource allocation.

This research established factors by literature review, then by applying Fuzzy Delphi Method (FDM) to select proper factors. Followed by applying The Analytic Network Process (ANP) to decide the weighted value for 3 bikeway systems, and finally Zero One Goal Programming (ZOGP) is applied to make a suggestion to local government in public investment decision making on construction bikeway systems.

**關鍵字** : uilding assessment, Fuzzy Delphi Method, Analytic Network Process, Zero-One Goal Programming