

# Exploring Tourism Cluster in the Peripheral Mountain Area Based on GIS Mapping

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## INTRODUCTION

Increasingly, developing tourism and making linkages with other economic sectors are strategically as a tool for regional economic development. In this article we will briefly resume and discuss the main results in the field of linkage between tourism and agriculture. In particular, we will survey the features of research area field data based on extensions of the linkage between tourism and agriculture on the several small agricultural settlements in Taiwan, which are the most relevant for mainstream application development. Finally, we will survey the currently available implementations of tourist spots by specified their locations on environmental conditions. Tourism in peripheral area is a relatively vulnerable to environment because of limited resource and disaster possibility. However, tourism provides alternative employment choice and greater economic inflexibility, so in peripheral area tourism development is still welcomed based on economic benefits. Clarifying the locational feature of the tourist spots is to realize the condition of tourism cluster, especially focus on the influencing factors of terrain conditions and accessibility. This research aims to explore the tourist attractions of a peripheral mountain area in the central Taiwan, analyze the important influenc-

ing locational factors of tourism cluster based on GPS (Global Positioning System) data of a set of tourist spots by processing GIS (Geographical Information System or Geographic Information System) mapping, and finally clarify what impacts the tourism cluster to the local environment by DTM (Digital Terrain Model) data.

## BACKGROUND

The potential for creating synergistic relationships between tourism and agriculture has been widely recognized by development planners, policy makers. Commonly, economic leakage is the main factor for why the linkage of tourism and agriculture to promote local economic development in peripheral regions. Food is an essential component of tourism and also represents a significant part of tourism expenditure, and creating and strengthening the linkages between tourism and local food production sectors can provide a proximate market. The concept of “farm-to-fork” demonstrates the linkages between the dimensions of sustainable agriculture, sustainable cuisine and tourism by increasing demand for local products. Farm-to-fork concept also can lead to a range of related direct and indirect tourism activities such

as food festivals, farm visits, factory tours and souvenir food merchandise, thus further enhancing the benefits to the local (Berno, 2011).

Torres (2002) explores the linkages between tourism and agriculture in the Yucatan Peninsula, observes that the principal force driving hotel purchasing hotel food differences by tourist nationality and type of tourist based on tourist food consumption and preferences. So, in the Yucatan Peninsula Mexican foods, tropical fruits and organic produce are identified as this study area significant potential tourist food for linking tourism and local agriculture. Seaton (1999) examines tourism attraction in a peripheral region, identified critical success factors to small scale sustainable development, indicated that peripheral areas, distance from core areas with sparse populations and low GDP economic structure can motivate visitors to through some kind of special attraction such as book town for retailing. Gardiner and Scott (2014) investigates successful tourism cluster on the Gold Coast, Australia to develop the youth tourism market, through joint promotion and product development as an attractive destination. They propose that niche tourism clusters are often used to improve competitiveness to achieve economic advantages, through use of concepts of strategic alliances and networks. Cluster is therefore a fundamental factor to creating successful tourism industry within a destination zone.

Food supply chains of tourism accommodation providers in the coastal region of KwaZulu-Natal, South Africa, make the pro-poor tourism build of linkages between tourism and agriculture as a whole, and that revealing significant implications of tourist food consumption on destinations. Most research examining tourism and agriculture linkages has focused on hotel food procurement patterns while failing to address the main driving force of hotel purchasing tourist food based on tourist consumption and preferences (Pillay & Rogerson, 2013). The role of tasting room in the direct marketing of southwest Michigan wines educates visitors about Michigan wines, a way to differentiate the Michigan wines, and offers

spectacular views of fields, orchards is varied according to the different locations of the wineries. Commonly, these wineries all provide supporting services of cellar door sales and direct shipping for promoting local wine (Che & Wargenau, 2011).

The linkages between tourism and related sectors vary widely from nation to nation, region to region. There are numerous successful examples of strategic alliances between tourism and the agricultural related sectors in Taiwan, especially the Jhong-Liao Township, in Nantou County of central Taiwan. Jhong-Liao Township composes of several small agricultural settlements with a population of about 16000, is located on the elevation from 200 meters to 1264 meters. Jhong-Liao is not the most famous destination in Taiwan, but it is a popular mystery destination for its distant from urban area-Taichung City. During Ching Dynasty it was a stopping place of wildness space along a transport route from costal areas to mountainous areas of central Taiwan rather than a tourist spot. During Japanese Occupation Period (1895-1945) it was a high productive place of agricultural activity, planted in plenty of banana, so the reputation for Jhong-Liao is also called "Banana Mountain". 20 years ago, a visitor to the Jhong-Liao seemed to be a lonely trip into an empty mountain area, until 1999 there were almost no tourist spots in Jhong-Liao. It's famous for as a tourist attraction was traced to 1999, when an earthquake disaster dramatically destroyed here, an atmosphere of "Ghost Town" spread out in Taiwan. Since 1999 many tourists visited here to see the destroyed landscapes after earthquake, and the number of tourist spots in Jhong-Liao has increased to 70, so now it is transformed to one of most popular destination of Nantou County.

In recent years, the linkage between tourism and agriculture for environmental sustainability has been discussed as the development of alternative tourist food, which was perceived to be traditional and local agrarian products, appeals to the visitor's desire for authenticity within the holiday experience (Hall, 2005; Michael, 2007; Sims, 2009). Thus, tasting local food performs as an authentic

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