

# Chapter 21

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

**Ya-Hui Hsueh**

*National Taichung University of Education, Taiwan*

**Huey-Wen Chuang**

*National Taichung University of Education, Taiwan*

**Wan-Chiang Hsieh**

*National Taichung Girls' Senior High School, Taiwan*

### ABSTRACT

*This chapter locates a set of points of tourist spots distributed on a peripheral mountain area by GIS mapping, illustrates that accessibility and neighbor to community are the influencing factors of tourism cluster in a peripheral mountain area, and further analyzes the benefits of tourism cluster of establishing cooperation network by tourism associations. This research investigates the linkages and local impacts between tourism and agriculture of a well-known organic agricultural area of fruits in Taiwan. This research aims to demonstrate the increased tourism development due to the tourist attractions of organic agriculture and religious spots in a peripheral region through a tourism clustering process. By collecting a set of points of tourist spots specified to GIS slope raster and point density surface, tourism-agriculture linkages and their local impacts are demonstrated.*

### 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

DOI: 10.4018/978-1-5225-7359-3.ch021

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 influencing 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

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/exploring-tourism-cluster-in-the-peripheral-mountain-area-based-on-gis-mapping/211880](http://www.igi-global.com/chapter/exploring-tourism-cluster-in-the-peripheral-mountain-area-based-on-gis-mapping/211880)

## Related Content

---

### 3D InSAR Phase Unwrapping Within the Compressive Sensing Framework

Wajih Ben Abdallah and Riadh Abdelfattah (2019). *Environmental Information Systems: Concepts, Methodologies, Tools, and Applications* (pp. 809-841).

[www.irma-international.org/chapter/3d-insar-phase-unwrapping-within-the-compressive-sensing-framework/212970](http://www.irma-international.org/chapter/3d-insar-phase-unwrapping-within-the-compressive-sensing-framework/212970)

### Pesticides as an Occupational Hazard Facts and Figures

Nazia Tarannum, Meenakshi Singhand Ranjit Hawaldar (2019). *Handbook of Research on the Adverse Effects of Pesticide Pollution in Aquatic Ecosystems* (pp. 201-214).

[www.irma-international.org/chapter/pesticides-as-an-occupational-hazard-facts-and-figures/213507](http://www.irma-international.org/chapter/pesticides-as-an-occupational-hazard-facts-and-figures/213507)

### Global Environmental Change and Emerging Infectious Diseases: Macrolevel Drivers and Policy Responses

Catherine Machalaba, Cristina Romanelli and Peter Stoett (2018). *Climate Change and Environmental Concerns: Breakthroughs in Research and Practice* (pp. 393-426).

[www.irma-international.org/chapter/global-environmental-change-and-emerging-infectious-diseases/201714](http://www.irma-international.org/chapter/global-environmental-change-and-emerging-infectious-diseases/201714)

### Educating for a Sustainable World: Bringing Together Indigenous and Western Knowledges

Asaf Zohar and David R. Newhouse (2019). *Intellectual, Scientific, and Educational Influences on Sustainability Research* (pp. 121-137).

[www.irma-international.org/chapter/educating-for-a-sustainable-world/230819](http://www.irma-international.org/chapter/educating-for-a-sustainable-world/230819)

### Utilization of Vegetable and Fruit Waste as Raw Material of Bioethanol

Erwan Adi Saputro, Renova Panjaitan, Aiman Anas Bobsaid and Meisy Cruisya Hutabarat (2023). *Food Sustainability, Environmental Awareness, and Adaptation and Mitigation Strategies for Developing Countries* (pp. 182-197).

[www.irma-international.org/chapter/utilization-of-vegetable-and-fruit-waste-as-raw-material-of-bioethanol/319459](http://www.irma-international.org/chapter/utilization-of-vegetable-and-fruit-waste-as-raw-material-of-bioethanol/319459)