

TOWARDS SUSTAINABLE TOURISM:
A CASE STUDY OF LIJIANG, CHINA

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Abstract

With the economic growth in the last three decades, tourism is becoming bigger business than ever before in China. One of the most popular tourism destinations in China is ancient towns. While the tourism industry encourages economic growth in ancient towns, it brings negative side-effects as well. The purpose of this report is to detect the economic and social sustainability of the tourism industry in Chinese ancient towns, taking Lijiang, Yunnan Province as an example. The report also provides responsive suggestions for the tourism industry in Lijiang in the end. To measure the sustainability of tourism in Lijiang, the report employs a total of 33 indicators in social, cultural, economic and political dimensions and a five-point evaluation system to convert different indicators into a relatively consistent measurable scale. The outcome of the analysis indicates that: 1) tourism in Lijiang is unsustainable in social dimension because of the paramount pressure on land use and the traditional life style caused by overhaul tourist population poured into Lijiang in recent years; 2) tourism in Lijiang has generally played a positive role in local culture's preservation; 3) the fast-growing economy brought by tourism in Lijiang is potentially unsustainable because of the imbalanced benefit distributions; 4) tourism in Lijiang is almost totally government-oriented and lacks a certain opportunities for public participation. The findings in each aspect of the tourism industry in Lijiang help decision makers understand both strengths and weaknesses of tourism in Lijiang better to make responsive policies and strategies to ensure a more sustainable future.

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CHAPTER 1 - Introduction

As big business, tourism is a major source of income and employment for many nations. According to Edgell (2006, p. 4), global tourism provides employment for more than 222 million people worldwide, or approximately one in every twelve workers. The World Travel and Tourism Council (2010) forecasts that the tourism industry is likely to continue to expand in the future as more people seek opportunities for leisure and recreation away from their place of residence. The contribution of the tourism industry to total employment is expected to be 1 in every 10.9 jobs by 2020 according to the World Travel and Tourism Council.

Tourism in China shares this similar picture of the industry as in many other nations, especially from the implementation of the Economic Reform and Open Policy Act in 1978. Since then, the tourism industry entered a new age and has developed dramatically over the past 30 years. The international tourism in China increased almost one thousand times, beginning with the number of 124 thousand international tourists in 1978 and reaching a figure of over 125 million tourist arrivals in 2008 (Ban, 2009; Gu, 2008). International tourists account for only a small part of the total number of tourists. Domestic tourists numbered over 1.394 billion in the year of 2008 and the total revenue has been estimated to exceed 893.5 billion RMB (about 128 billion U.S dollars). Aside from total revenue, tourism offers opportunities for developing leisure activities, cultural awareness and international exchanges as well as providing employment. The employment directly related to the tourism industry in China in 2008 was almost 10 million (Gu, 2008). Furthermore, tourism offers unique opportunities in deprived areas, such as the centers of historic towns in economic decline, small islands and outlying areas, rural mountain areas, etc., some of which are crying out for development.

A variety of factors have contributed to the spectacular growth of tourism, notably, rising incomes and reduced working hours, increased leisure time, improvements in transport technology, lower travel costs, etc. (Priestley, Edwards & Coccossis, 1996, p. 2). Among all contributors, however, the rich natural and cultural resources of China have provided a major advantage in advancing prospective tourism. Composed of 56 different ethnic groups with distinctive traditions of festivals, culture, architecture forms, attires, foods, religions, and life styles, China is expected to be impacted continually and profoundly by tourism in the future. However, the problem is that the economic interests benefiting from tourism are always the priority consideration, and the side-effects are usually ignored or underestimated. Tourism destinations are being dramatically changed by tourists and suffer the consequences, including 1) over commercialization; 2) environment pollution; 3) historic structures devastation; 4) spatial expansion; 5) reduction of original residents in the area; and 6) accommodating the huge tourist volume.

Under these circumstances, how to encourage economic growth through tourism but at the same time decrease the negative impact of tourism on the environment has become of major concern since tourism depends on local natural and cultural resources. Because development of tomorrow depends on the decision being made today, planning for tourism by adhering to appropriate principles, policies, and philosophies will offer positive economic, environmental and social benefits for the future. Sustainable tourism has emerged as a response to such concern in the past twenty years. Different from unmanaged tourism, which can damage heritage sites, high-profile sites often suffer the most. Sustainable tourism minimizes the negative impact of visitors on heritage sites and the surrounding environment, but also produces income and jobs for local communities. The Chinese government realized the significance of urban sustainability in creating a sustainable future and the enormous influence of tourism on urban development. As a

result, they have taken actions and made efforts to promote a healthier tourism mode in recent years, especially in the past 24 years since China joined in the Convention *Concerning the Protection of the World Cultural and Natural Heritage* in 1985. Twenty-four years later, it is meaningful to review the tourism picture in China to learn lessons from experience in promoting the tourism industry's compelling development.

According to different tourism products in China, tourism destinations are typically identified in three broad categories:

- 1) Natural landscape - mountains, lakes, forests, beaches;
- 2) Built environment - in particular historic cities, towns, villages, historic sites, and architecture heritage;
- 3) Modern recreation facilities - shopping centers, skyscrapers, amusement parks, museums, and landmark structures.

This study will focus on the second category of tourism, taking ancient towns as an objective. Ancient towns in this study refer to the agglomerated areas of human settlements between villages and cities, having a history of no shorter than several hundred years, with a predominantly historic character. According to an incomplete statistic, there are thousands of ancient towns located in almost every province of China. The most well-known 107 ancient towns employing tourism to increase total revenue and improve their local economy are noted on the website of China Ancient Town.

Table 1.1 identifies the 16 different provinces which contain these 107 towns. In addition to the towns that have employed tourism, more ancient towns are seeking to boost economic growth through encouraging tourism as well. As one of the most popular tourism destinations, ancient towns' primitive character attracts tourists from all over the world. Since ancient towns are China in miniature, burdening culture, customs and history, the research on tourism in

ancient towns would benefit both the towns themselves and the nation of China to preserve culture while promoting economic growth.

Table 1.1 Distribution of the 107 Most Famous Ancient Towns

Name of Province	Number of Ancient Towns
Zhejiang	23
Anhui	11
Yunnan	9
Jiangsu	8
Guangxi	8
Fujian	7
Chongqing	7
Guizhou	6
Sichuan	6
Guangdong	5
Hunan	5
Shanghai	4
Shanxi	3
Jiangxi	3
Inner Mongolia	1
Shandong	1
Total	107

Source: the Website of China Ancient Town. Retrieved Nov. 12th, 2009 from <http://www.sozhen.com/default/chinaprovince.html> (in Chinese)

Because sustainable tourism must relate today's dynamic tourism needs to tomorrow's concern for the future, it is not easy to define, describe and measure sustainable tourism with a clear-cut definition. Sustainable tourism is most popularly interpreted in the following three perspectives (Priestley et al., 1996, p. 8). First, sustainable tourism is defined more in the line of

economic sustainability of tourism. Strategies in this view strongly emphasize the need of upgrading and investing in infrastructure to increase tourists' capacity and improve services. The second interpretation focuses on ecologically sustainable issues involved in tourism. This approach places priority on the protection of natural resources and ecosystems since it recognizes environmental quality as a factor of competitiveness. The third approach identifies sustainable tourism as part of a strategy for sustainable development, in which "sustainability is defined on the basis of the entire human/environmental system" (Priestley et al., 1996, p. 9). Tourism policies from this perspective pay more attention to the balance and integration of economic efficiency, environmental conservation, and social equity.

Considering the unique but superior historic values of targeted ancient towns compared to other tourism destinations, this study, in general, adopts the later two interpretations of sustainable tourism – economic and socially sustainable tourism, attempting to explore effective policies to reconcile the conflicts among economic growth, historic sites preservation, and the combination goal of protection for local residents and tourists. Issues that largely belong to the environmental domains, such as ecological tourism, natural resource conservation, and environmental quality, are not covered by this study. Furthermore, this study will focus on city-scale tourism rather than the regional scale. In other words, the report will not consider the cooperation or competition between ancient towns developing tourism.

Due to the limited time and effort, it is impossible for the author to evaluate the tourism statuses in all the 107 ancient towns employing tourism currently, and draw a comprehensive picture of tourism in Chinese ancient towns. The author decides to focus research on one representative ancient town of Lijiang, Yunnan Province, which has developed tourism for approximately twenty five years and is one of the most popular ancient towns for tourists.

The purpose of this report is to review the tourism industry development in Lijiang over the past 25 years, measure the sustainability of the tourism industry in social, cultural, economic and political dimensions based on historical and existing data from the Bureau of Statistics in China and draw a general picture of the economic and social sustainability of tourism in Lijiang. Based on the strengths and weaknesses of the tourism industry in Lijiang, the report forwards suggestions for a more sustainable future in the end. The findings are helpful for people interested in understanding the sustainability of tourism in Lijiang. The findings and suggestions are also helpful for tourism policies-makers to make wise decision in the future.

While the policies and actions promoting the sustainability of tourism are effective in Lijiang, they might not be sufficient for other ancient towns to develop tourism sustainably because of the unique natural resources, geographical characteristics, political environment, accessibility, and historic assets of each town. Therefore, although the indicators used to evaluating the sustainability of tourism in Lijiang and the conclusions and suggestions for Lijiang to develop tourism sustainably might be valuable for other similar towns, other towns should prudently inspect their own strengths and deficiencies before adopting the lessons and experience of tourism from Lijiang.

CHAPTER 2 - Literature Review

The definition of a concept is the base of a research field. In the research field of sustainable tourism, there are two distinctive angles to define sustainable tourism. The first definition emphasizes the sustainability of the sustainable tourism industry. For example, Ahn, Lee and Shafer (2002) conclude sustainable tourism development to be the status of all the involved parties developing harmoniously, achieving expected life quality and continuing the status. The second definition explains sustainable tourism as the counterpart of mass tourism. Both of Tepelus (2005) and Budeanu (2005) point out that while most of the negative impacts of tourism are caused by mass tourism, sustainable tourism eliminates tourism-related problems by supporting small scale tourism. They advise tourism organizations to protect the environment over the long term by monitoring visitor's behavior. Based on the study of the impacts of different modes of tourism, Bohler, Grischkat, Haustein, and Hunecke (2006) assert that the government should advocate the mode of encouraging environment protection. All the several different perspectives to understand sustainable tourism mentioned in Chapter 1 belong to the first category, focusing on the sustainability of sustainable tourism.

Theoretical Research of Sustainable Tourism

How to measure the sustainability of sustainable tourism is another significant study area of the tourism industry. According to the readings, the evaluation methods include (1) a multi-index system of comprehensive evaluation method; (2) Ecological Footprint Method; and (3) System Theory Model and others. Miller (2001, pp. 351-362) conducts a two round Delphi survey of 74 experts opinions on the development of indicators to measure the movement of the tourism product towards a position of greater or lesser sustainability. The result of the expert survey shows the necessity of establishing the indicator system to evaluate sustainable tourism.

At the same time, however, the author also points out the disagreement over “sustainability” and correspondingly, that the actions and the indicators of measuring sustainability do not reach a consensus either. In addition to the indicator system, Miller mentions the crucial roles of local residents and organizations in evaluating sustainable tourism.

Kajanus, Kangas and Kurttila (2004, pp. 499-506) measure the sustainability of a series of factors in tourism through a two-case study by using the A’WOT method. A’WOT is a hybrid method combining the well-known “Strengths, Weaknesses, Opportunities and Threats” (SWOT) analysis and the Analytic Hierarchy Process (AHP). SWOT analysis is a commonly used tool for analyzing both the internal and external environments in order to attain a systematic approach and in turn, providing decision makers with supports. According to their study, local culture has the potential to be a success factor in rural tourism such as the case study regions, Ylä-Savo in Finland and Kassel in Germany. They also recommend investments which enhance and strengthen local culture over those that utilize culture and traditions to make products in the tourism business. Strengthening local culture opens up possibilities for future innovations and sustainable development. A strong culture and an awareness of one's own traditions form a natural foundation for innovations.

Similar with Kajanus et al. (2004), Ko (2005, pp. 431-445) measures the sustainability of tourism through case study as well. Rather than adopting a method to evaluate different factors involved in tourism as Kajanus et al. (2004) does, however, Ko attempts to develop a conceptual framework to assess tourism sustainability with the components: identification of the systems, dimensions, and indicators; scaling of sustainability; gradations of sustainability; development of tourism sustainability assessment maps; extension of the maps over time; and evaluation.

‘Barometer of tourism sustainability’ (BTS) and ‘AMOEBAs of tourism sustainability indicators’ (ATSI) are introduced as devices for the assessment of tourism sustainability. The proposed

BTS model represents the comprehensive level of tourism sustainability at a given destination, combining human and natural indicators into an index of sustainable tourism development, without trading one off against the other. The ATSI model is introduced to complement the BTS analysis and to illustrate individual levels of sustainability of tourism indicators. At the end of the research, Ko (2005) argues that all involved parties and stakeholders should be encouraged to be informed of all the information related to the tourism industry by the government to achieve sustainable tourism.

Choi and Sarayaka (2006) establish an evaluating system as well to measure the sustainability of community tourism development. The system includes 125 sustainability indicators, involving political, social, economic, technical and cultural aspects. The set of sustainable tourism indicators serves as a starting-point for devising a set of indicators at the local and regional level. Relying on communities' distinctive characteristics, a set of sustainable indicators shall be employed by stakeholder groups, including residents of the host community, industry experts, government planners, policy-makers, and non-governmental organizations (Choi & Sarayaka, 2006, p. 1274).

In addition to the Multi-index system of the comprehensive evaluation method mentioned above, the Ecological Footprint Methodology is adopted as well to assess tourism sustainability. The ecological footprint is a measure of human demand on the Earth's ecosystems. It compares human demand with planet Earth's ecological capacity to regenerate. It represents the amount of biologically productive land and sea area needed to regenerate the resources a human population consumes and to absorb and render harmless the corresponding waste. Using this assessment, it is possible to estimate how much of the Earth it would take to support humanity if everybody lived a given lifestyle. When the Ecological Footprint method is applied to the tourism industry, scholars compare tourist demands with tourism destination's ecological capacity and estimate the

appropriate tourist's population for a particular place. In other word, according to the author's understanding, the Ecological Footprint Methodology is an approach which calculates the maximum population for a community based on the quantity and amount of local ecological resources.

Gossling, Hansson, Horstmeier, and Saggel (2002, pp. 199-211) develop the framework of the Ecological Footprint Methodology applied to tourism sustainability assessments and discusses the benefits and shortcomings of such method based on the case study of the Seychelles Islands. While the most remarkable advantage of the Ecological Footprint Methodology is its capability of providing researchers with a solid base to determine carrying capacity, the biggest obstacle in applying this method to encourage tourism sustainability is the difficulty to access enough statistical data. Hunter and Shaw (2007, pp. 46-57) discuss the application of an ecological footprint in tourism sustainability evaluation as well.

Sustainable Tourism Practice

The issue of sustainability in tourism has been a concern of many scholars and researchers in examining the expansion of tourism. Through studying the tourism industry in small island developing states, Abeyratne (1999, p. 37) finds the excessive reliance of tourism on air transports and concludes that many small island developing countries are standing at the crossroads of sustainable tourism and habitat degradation. Other big challenges for developing countries' tourism industry lie in national economic strategies, public administration structure, environmental problems, over commercialization, and International Tourism System Structure (Tosun, 2001, p. 301). Although the theory of sustainable tourism is attractive and inspiring, the practice is much more slippery. Tosun (2001) also forwards that the assistance and encouragement from international organizations and developed countries are valuable and necessary for developing countries to implement and develop sustainable tourism.

The existing status of the World Heritage Scenic Spots draws much attention as well. Grainger (2003, p. 292) examines tourism development in the Saint Katherine Protectorate, Southern Sinai. The result indicates that tourism there produced lots of pressure on six tribes of indigenous residents and the mountain ecosystem. To encourage sustainable tourism, Grainger (2003) has suggested formulating a comprehensive program to protect the natural and cultural heritage. At the same time, local residents shall be encouraged to participate in the planning and constructing process to promote sustainable development. Briassoulis (2002) and Aguilo, Alegre and Sard (2005) suggest a similar conclusion with Grainger (2003), emphasizing the importance of a comprehensive program to facilitate sustainable tourism. Aguilo et al. (2005) complete a study of tourism development in Malieli Islands and conclude that all resources should be developed and used under careful supervision with specific and comprehensive planning. Only in this way, tourism is more likely to be sustainable and benefit the community in the long run. Young (2006, p. 169) researches the exiting status of tourism in the Great Smoky Mountains National Park, United States. Young (2006) holds that the decision of forcing local residents to relocate outside the Great Smoky Mountains to encourage tourism virtually deteriorates the visionary attractiveness and destroys indigenous residents' life, proved to be unsustainable. Laurance, Alonso and Lee (2006, pp. 454-470) point out the importance of the participation and cooperation of both local government and tourists to protect the richness of resources and promote sustainable development in the tourism industry through a case study in Gabon. Teh and Cabanban (2007, pp. 999-1008) examine a case study of the tourism industry in southern Pulau Banggi and concludes that the biggest challenges and obstacles of sustainable tourism are the deficiency of water resources and sanitation facilities.

Gossling, Peeters and Ceron (2005, pp. 417-434) analyze the eco-efficiency of the tourism industry in France, Seychelles, the U.S., and Holland. The result indicates that the

tourism industry is not more environmentally friendly than other industries through comparing the amount of carbon dioxide emission of per unit of economic earnings. The sustainability of tourism largely depends on the factors of travel distance and traffic modes. Gossling et al. (2005) assert that jaunting, referring to the trip ending in two days in one particular tourism destination, is more sustainable than excursion, which usually means the trip lasting more than two days in one tourism spot.

Consensuses of Sustainable Tourism

Through reviewing literature in sustainable tourism, the study finds that several consensuses on sustainable tourism have been reached. First, while tourism occurs in urban, rural, and natural areas, sustainable tourism is researched and emphasized at priority sites, including coastal areas, small islands, waterfronts, and urban areas with a strong historical character emphasis. Around three-fourths of those sites are environmentally sensitive to the impact of tourism, which emphasizes the environmental sustainable attribute of sustainable tourism. For example, seven of the total twelve papers in the book “Sustainable Tourism, European Experiences” discuss environmental degradation and tourism. That is understandable because the impact of tourism on the environment, compared to that on the economy, culture, or society, is more easily detected and noticed.

Second, most of the scholars agree with the importance of a comprehensive tourism plan for sustainability. Burr (1995, p. 14) suggests that sustainable tourism development should be considered as one part of a planning process that integrates tourism with other economic development initiatives in attempting to achieve sustainable development. Ahn et al. (2002) hold the same opinion. Burns and Sancho (2003) did the case study of sustainable tourism in Cuellar, Spain and measured the effects of tourism planning. The study shows a positive role of planning in both promoting sustainable tourism and encouraging democratic development.

Third, sustainable tourism development should be planned and managed by community stakeholders. The participation and cooperation of various organizations, local residents, and the government are advocated and encouraged by scholars and researchers as well, since they play a positive role in protecting the sense of their own community which in turn is helpful to promote sustainable development. In other words, community self-determination and active community involvement are essential elements of sustainable tourism (Choi & Sarayaka, 2006). In particular, local governments should solicit their residents' broad and direct participation, which can influence decision-making and guarantee to all stakeholders a fair distribution of benefits. In order to maximize community participation, residents must have sufficient access to various communication channels such as the Internet, email, and mass and print media.

Fourth, sustainable tourism should meet certain criteria. Because the important role tourism development plays in environmental protection and in economic and social development, Cronin (1990) suggests that tourism should follow ethical principles that respect culture and environment and the host area, the economy and traditional way of life, the indigenous behavior, and the local leadership and political patterns. Indeed, not only Cronin, many other researchers hold similar perspectives. When applying the multi-index system of comprehensive evaluation method to tourism evaluation, the most popular criteria and indices forwarded by researchers cover environmental carrying capacity, local culture, indigenous way of life, the number of local residents, the number of tourist population, and the equality of tourism (fair distribution of benefits and costs among tourism promoters and host people).

Fifth, the main methodology of sustainable tourism research is case-based and there are no unanimous values/standards to evaluate the sustainability of tourism yet. Because the tourism industry relies mostly on the unique natural or cultural resources of each tourism destination, it is not easy for researchers to determine fixed values towards different indices. In addition to the

unique feature of each tourism site, the tourism industry is also largely determined by what stakeholders want it to be. Since either the natural resources or social contexts of each destination are similar or the same, sustainable tourism studies generally adopt a pragmatic research method but following the above criteria. A review of cases where the sustainable development of tourism apparently is being achieved can help communities and rural areas reach their sustainable objectives.

CHAPTER 3 - Methodology

Study Objective: Lijiang, Yunnan Province

The case-study of Lijiang is an ancient town and a tourist destination, renowned for its historic buildings, city plan layout, and its natural beauty. Because it became dramatically popular with mass tourism in the past 25 years, it faced the problems such as indigenous culture degradation. The government, however, took actions in time and has made some progress recently to curtail the cultural degradation. Therefore, it deserves attention and discussion.

There are three important reasons to select Lijiang as the study objective. First, Lijiang is one of the first batch of ancient towns that employed tourism in China. As a city developing tourism for almost 30 years, it is meaningful to review that development in Lijiang to summarize its lessons learned and experiences, which might benefit other ancient towns attempting to seek sustainable tourism in the future. Second, Lijiang has a great reputation of its traditional culture and way of life, and attracts huge tourist populations since it initially began to develop tourism in the beginning of the 1980s. It is meaningful to detect the impact of huge tourist population on Lijiang. Third, designated as “Historic and Cultural City” by the Central Government of China in 1982 and “World Heritage Site” by UNESCO in 1997, Lijiang received great attention from all levels of governments and thus, effectively represents the characteristics of nation-oriented tourism development in China.

Clarification for the meaning of Lijiang

The word “Lijiang” has two meanings. It may mean “Lijiang Naxi Autonomous County” (see Figure 3.1). It may also refer to “the Ancient Town of Lijiang” (see Figure 3.2), which is

called Dayan Town or Dayan Ancient Town. In this report, “Lijiang” always refers to “the Ancient Town of Lijiang” unless there is a special explanation.

Figure 3.1 Location of Lijiang Naxi Autonomous County



Source: from Takayoshi, 2000, p. 218.

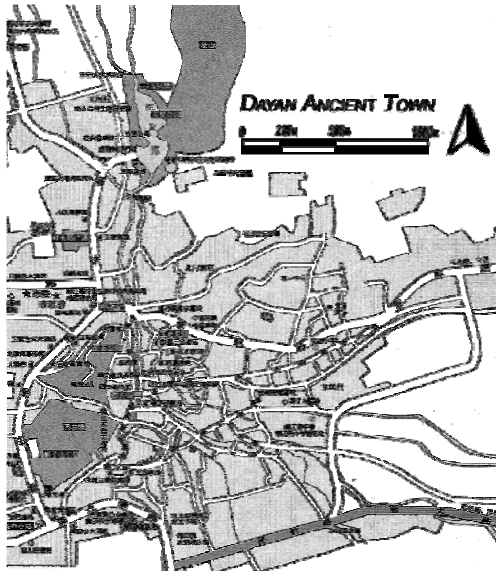
How to measure the sustainability of Tourism in Lijiang

Simply adopting the term of sustainability is not sufficient in ensuring that it becomes a reality. There is a long-since recognized need for continual monitoring to ensure a so-called ‘sustainable’ program is achieved. As mentioned in Chapter Two, Literature Review, there are two popular approaches for measuring the sustainability of tourism, the Multi-Indicators System and the Ecological Footprint Methodology. Considering the focus of this study, which emphasizes cultural and social sustainability, the author has employed the Multi-Indicators system as a basic tool to analyze the tourism development in Lijiang.

Although Stoeckl, Walker, Mayocchi and Roberts (2004) suggest one cannot measure sustainability through indicators, indicators do provide an indication of change and a means for monitoring progress towards sustainability and in turn, help in determining the responsive actions and behavior. In this study, the indicators are categorized as social dimension, cultural

dimension, economic dimension and political dimensions with qualitative and quantitative analyses (see Table 3.1, Table 3.2, Table 3.3 and Table 3.4).

Figure 3.2 Ancient Town of Lijiang



Source: map courtesy by the author on the basis of a map retrieved Feb. 12, 2010 from the website <http://www.onegreen.net/maps/m/a/lijiang1.jpg>

Table 3.1 Indicators for Social Dimension

Key Themes	Indicators	Analysis Approach	
		Quantitative	Qualitative
Host Population	Residential population	X	
	Indigenous Population	X	
	Immigrated Population	X	
	Racial Composition	X	
Land Use	Number of Stores	X	
	Business Categories		X
	Land Use Change	X	X
	Stores' Ownership Change	X	X
	Way of Life		X
	Racial Composition of Store operators	X	
Tourists	Tourist Population	X	
	Land Use Density	X	
	Tourist Satisfaction		X
Physical Environment	Building Dimension (height, size)	X	
	Building Style		X

	Bridges' Preservation		X
	City Plan Layout's Conservation		X

Table 3.2 Indicators for Cultural Dimension

Key Themes	Indicators	Analysis Approach	
		Quantitative	Qualitative
Culture	Retention of local customs & culture		X
	Shift in Level of Pride in Local Cultural Heritage		X
	Number of Native Language Speakers		X
	Type and amount of training given to local residents and tourism employees		X
	Type of information given to visitors before and during site visits		X

Table 3.3 Indicators for Economic Dimension

Key Themes	Indicators	Analysis Approach	
		Quantitative	Qualitative
Income	Tourism Revenue	X	
	Citizens' Per capita Income	X	
	Rural Residents' Per capita Income	X	
Benefit Distribution	Percentage Change of Tourism Revenue	X	
	Percentage Change of Citizens' Income	X	
	Percentage Change of Rural Residents' Income	X	
	Absolute Difference of Per Capita Income between Citizen and Rural Resident	X	

Table 3.4 Indicators for Political Dimension

Key Themes	Indicators	Analysis Approach	
		Quantitative	Qualitative
Political Participation	Local Resident Participation In Planning Process		X
	Political supports at all level of governments		X
	Inclusion of Tourism into a community process as one of major components		X
	Tourism Related Master Plan		X

Table 3.5 Number of Indicators Developed in this study

Dimensions	Number of Indicator (issues) Developed
Social Dimension	17
Cultural Dimension	5
Economic Dimension	7
Political Dimension	4
Total	33

After determining the indicators for measuring the sustainability of tourism development, the next step is to translate tourism indicators into a measurable form. Since it is too absolute to judge tourism development in Lijiang as sustainable or unsustainable, in this study, the level of tourism sustainability is presented by assessing sustainability of individual indicators, using a five-point scale in order to compare and evaluate each indicator. The five-point scale is divided into five sectors, including excellent, good, medium, poor and bad. This scale is somewhat useful in explaining relatively precise and complicated information because it converts different indicators into a relatively consistent measurable scale.

Whether a specific indicator falls into the excellent, good, medium, poor or bad sector, in general, depends on the impact of tourism, revealed by the specific indicator, on the indigenous residents. The basic theory is that the more benefits brought by tourism shared by the indigenous residents in the ancient town of Lijiang and the rural residents whose life were impacted by tourism, the more likely the indicator to be accounted for positive sectors: excellent and good. On the contrary, the more benefits deprived by the population other than the indigenous residents in the ancient town of Lijiang or the impacted rural residents, the more likely the indicator to be described as poor or bad. When it comes to individual key themes in various dimensions, the general principle of describing an indicator by the five-point scale is specifically translated to the following standards and principles of the excellent and poor performances of each key theme

(see Table 3.6). If the outcome of an indicator is closer to the condition of excellent performance and effective actions have been implemented in recent years, the indicator is assigned as “good”. If an indicator verifies detrimental outcomes happened and are continuing to be intensified during the tourism development, the indicator is assigned as “bad”. If the outcome of an indicator shows no obvious tendency toward either “good” or “poor” performance, the indicator is described as medium.

Table 3.6 The Principles of Measuring Individual Indicators by the Five-Point Scale

Key Themes	Excellent Performance	Poor Performance
Host Population	The proportion of the indigenous population keeps stable.	The proportion of the indigenous population severely declines and no responsive actions are taken yet.
Land Use	The building uses do not change to cater to tourists’ demand and the indigenous residents continue their traditional life style.	The building uses are dramatically changed to serving the tourist population and the original citizens leave out of the town, altering their way of life radically. And no actions are taken to prevent the indigenous population from flowing out.
Physical Environment	Historic assets and the ancient town feeling are well preserved.	Historic buildings and townscape are demolished and no responsive actions are taken yet.
Tourists	The land use density and population density in Lijiang are reasonable even counting the tourist population in, compared with other cities.	The number of tourist population exceeds the upper limit of carrying capacity of Lijiang and no responsive actions were taken yet.
Culture	The traditional culture is well preserved and the language and music are in use by not only the elder but also the younger.	The traditional culture in Lijiang is not respected and no longer in use and no culture-saving actions are taken yet.
Income Benefit Distribution	The total revenue of tourism and the per capita income of the indigenous residents and the rural residents whose life of way is changed by tourism share a similarly increasing trend.	The total revenue of tourism increases with a much faster rate than the per capita income of the indigenous residents and the rural residents whose life of way is changed by tourism. The per capita income of indigenous residents and impacted rural residents rises with a relatively slow rate during tourism development. And no effective actions are taken yet.

Political Participation	To place the decision-making about the tourism industry in the hands of the public	The public are informed about tourism industry related decisions made by the government body with a top-down manner; and there is no trend of encouraging more public participation in decision-making process.
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After the indicators are described by the consistent five-point scale, they are converted into the following sustainable related sectors: sustainable, potentially sustainable, intermediate, potentially unsustainable and unsustainable based on the following assumptions. The “excellent” condition of individual indicators related to the tourism industry is likely to be more “sustainable”, while the “bad” condition is likely to be defined as more “unsustainable”. The “potential sustainability” of a tourist destination might be maintained if effective actions and policies have been implemented in recent years. Otherwise, if adverse reactions and outcomes happened during tourism development, but there is lack of responsive strategies solving the problems or issues, the author would assign the indicator as “potentially unsustainable” (see Table 3.7).

Table 3.7 Sustainability Evaluation Standards

Evaluation	Convert to Sustainability
excellent	sustainable
good	potentially sustainable
medium	intermediate
poor	potentially unsustainable
bad	unsustainable

Data Collection

Except the first-hand data of stores on the main streets of Lijiang, which were collected by Takayoshi in the year of 2000 and 2004, all other data in this report are compiled by the author primarily from the official websites of Lijiang, Lijiang County, Yunnan Province,

National Bureau of Statistics of China, Bureau of Tourism in Lijiang County, Provincial Bureau of Tourism of Yunnan Province, and National Bureau of Tourism of China. In addition, the website of China National Knowledge Infrastructure (CNKI), the website of Department of City Planning in Lijiang, the website of Detailed City Planning for Lijiang and some tourism agencies' websites assist the author to help find part of the data as well. All the links of those websites are located in the Reference part at the end of the report.

CHAPTER 4 - Introduction of Lijiang County

and Tourism in Lijiang

Introduction of Lijiang County

The Lijiang Naxi Autonomous County (hereinafter, Lijiang County) is located in the northwest corner of Yunnan province in southwest China (see Figure 4.1). Mountainous terrain covers seventy percent and flat plains occupy only five percent of the land area. Lijiang County is about six hundred kilometers away from the provincial capital Kunming and has derived comparatively little benefit from economic growth in coastal and central China. In history, Lijiang County is the converging place of a multiple of minority cultures, such as Ba-Shu culture, Tibetan culture, Naxi culture and others. The great majority of the population of Lijiang County are the Naxis, an indigenous ethnic minority group, with the right of self-government (see Figure 4.2). Due to the unique geographical environment and traditional culture, Lijiang is famous for its advantaged tourism resources as well as its multi-transculturations led by the Dongba culture for over a thousand years. This culture covers hieroglyph, lection, dancing art, sacrifice custom and so forth. For example, Naxi ancient music in Lijiang County is regarded as “Living Fossil” of music.

Lijiang has three World Cultural Heritages. Its rich tourism resources can be generalized into “two mountains, an ancient city, a river, a lake, and a unique type of culture and custom”. “Two mountains” mean Jade Dragon Snow Mountain and Laojun Mountain. Jade Dragon Snow Mountain (see Figure 4.3) is a famous national scenic zone as well as a provincial natural reserve covering an area of 26.3 thousand hectares, containing a modern maritime glacier located nearest the equator in the northern hemisphere with over 20 well-protected virgin forests and 59 rare species. Thus, Jade Dragon Snow Mountain is honored as “glacier museum” and “species

treasury”. Laojun Mountain (see Figure 4.4) is the core scenic zone with the total area of 842.64 square kilometers and is formed by three parallel rivers. In the zone, there exists unique “Danxia Landform” as well as flourishing virgin woods together with a rich ecological community.

The first component of the tourism resources is the ancient town of Lijiang (see Figure 4.5 and Figure 4.6). Lijiang was built in the late period of Song Dynasty (the late 13th Century), having a history of over eight hundred years. The city is located in the Yunnan-Guizhou Plateau at an altitude of over 2400 meters. The whole area of the city is 3.8 square kilometers. Lijiang has always been an important commercial city from ancient times to the present. In 1986, it was

Figure 4.1 Location of Lijiang



Source: from Takayoshi, 2000, p.218.

honored as one of the state-list famous historical and culture cities in China. On December 4, 1997, Lijiang entered the directory of world cultural heritage, as the only Chinese ancient town with no wall surrounding the urban area.

Figure 4.2 Dancers of Naxis in Lijiang



Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

Figure 4.3 Jade Dragon Snow Mountain



Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

Figure 4.4 Laojun Mountain



Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

Figure 4.5 Townscape View of Lijiang



Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

Figure 4.6 Bird's eye view of Lijiang



Figure 4.7 Lugu Lake in Lijiang County



Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

The second component is Lugu Lake (see Figure 4.7) in Ninglang County, which is one of the nine largest plateau lakes in Yunnan Province. Its altitude is 2685 meters above sea level and covers a total area of 48.45 square kilometers. The average depth of the lake is 40.3 meters with a maximum depth of 93.5 meters. Lugu Lake is Yunnan's provincial natural reserve and tourism area.

The third component is Jinsha River (see Figure 4.8) passing Lijiang ancient city with the total length of 651 kilometers. The scenery along the river is very unique and steep, such as Tiger-leaping Gorge. "A unique type of culture" means both extensive and profound Naxi Dongba Culture, including Dongba hieroglyph, Naxi ancient music, Dongba painting, architecture and religious art. "Custom" refers to the Mosuo Custom, which is the traditional wedding rite of Mosuo people living along Lugu Lake in matriarchal society. All in all, Lijiang owns many well-protected tourism resources, which enhance significantly its attraction to tourists.

Figure 4.8 Jinsha River



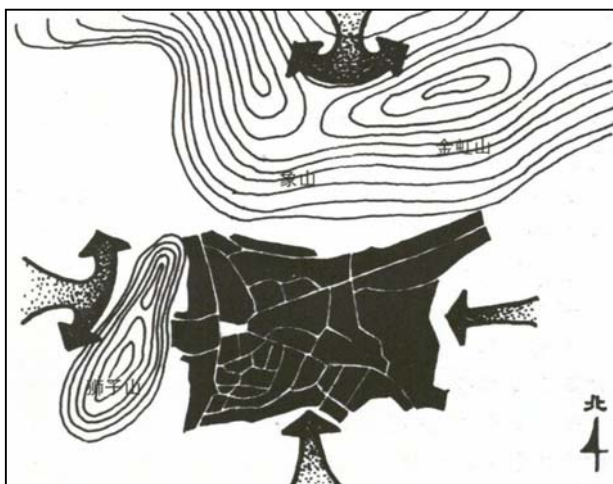
Source: Retrieved Mar 9, 2010 from <http://image.baidu.com/>

The Layout Characteristics of Lijiang

Lijiang is the main part of the history and culture city, “World Culture Heritage” designated by UNESCO in the year of 1997. Its location and layout makes good use of the geographical environment and The Black Dragon Pool, a nearby natural reservoir. In the north of Lijiang are Elephant Mountain and Jinhong Mountain and west is Lion Mountain (see Figure 4.9). Such layout benefits the microclimate of the city through preventing the cold air from the northwest and keeping warm air from south-east staying in the city.

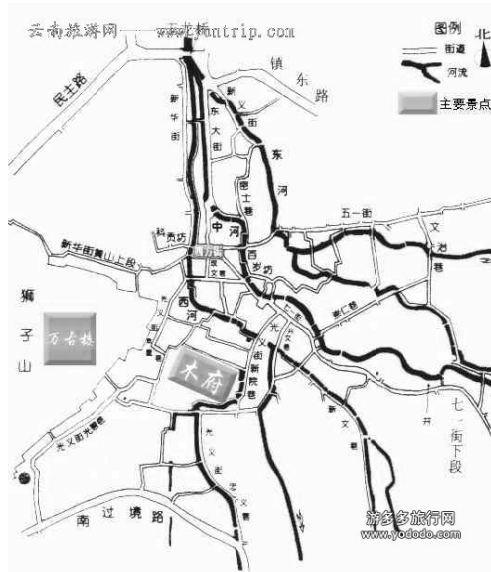
In addition to the macro-layout, the water system in the old town deserves attention as well. Located to the north of the city, the Black Dragon Reservoir is the main water source of the city. Since the north elevation of the reservoir is higher than the rest of the city, the water is able to flow down by gravity into the city. When the water arrives at Jade Dragon Bridge, it is divided into three rivers serving eastern, central and western parts of the city, and each of the rivers gradually becomes numerous smaller streams flowing along with streets, roads, houses, and walls. These streams make the landscape of the old city unique and attractive (see Figure 4.5 and Figure 4.10).

Figure 4.9 Macro-Layout of Lijiang



Source: Our Historic Cities and Historic Towns, 2007, p. 63.

Figure 4.10 Waters System in Lijiang



Source: Retrieved Feb. 12, 2010 from the website of Tourism in Yunnan Province

While the central stream is a natural river, both of the western and eastern streams are man-made channels, respectively founded in Yuan Dynasty and Qing Dynasty. Where there is a river, there is a bridge. According to the investigation of the Tourism Bureau of Lijiang in 2008, there are 354 bridges in the old town of Lijiang, which accounts for the highest density of bridges in China. With the different characteristics of the different water systems, the bridges adopt distinctive styles accordingly. For instance, since the central stream has the largest flow, most bridges over the central current are stone arch bridges and look solid. On the other hand, bridges over the eastern and western streams usually use wood and bamboo emphasizing the elegant shape and style. Elegant and fancy, but functional bridges are another element contributing largely to the space diversity of the old town.

The city texture of Lijiang is dense, compact, and concentrated. Most of the houses in the old town area were constructed during the Ming Dynasty and Qing Dynasty with a history of hundreds of years. Since the houses and the city pattern were formed over a long period, the

layouts are full of flexibility and diversity. Houses, markets, streets, and waters are interdependent but well organized and form an amazingly comprehensive system, which make the entire city harmoniously co-exist with nature. The typical residential buildings are two stories, brick and bamboo structured with an inner courtyard. A significant number of such buildings connect with each other and form a compact, flexible and small-scaled city texture.

Tourism Development in Lijiang

Traditionally the economic activity of the town was based on agriculture, wholesale trade and manufacturing, but over the past 30 years it has changed dramatically to the visitor industry, involving the tourist and service sectors. Today tourism is regarded as the town's major export industry. Agriculture still survives, despite limited production because of employment losses to other activities and the scarcity of water, which is largely consumed by tourism. The economic activities of Lijiang can be grouped into three Sectors. They are, in order of importance: tourism, retail trade, and culture-related industry. Although tourism is the major industry of the ancient town, excessive dependence on tourism over the last 15 years has made the Lijiang economy vulnerable to regional competition for tourism and fluctuations in the world tourist industry.

Before the year of 1980, Lijiang grew extremely slow with few new buildings constructed in the old town of Lijiang. The first phase of tourism development on the old town dated from the 1980s. From the beginning of the 1980s, some scholars and experts in Yunnan Province began to give great concern of Kunming, Dali and other old cities, starting the research of local culture, and advocating the protection of these old cities and culture in Yunnan Province. Lijiang, as one of the old cities, entered people's vision in that period of time. Several years later, in the year of 1985, the government proposed to develop tourism in Lijiang, and established the "tourism first" development strategy to promote economic and social progress. Five years later,

the central government of China approved Lijiang as a tourism destination opening it to the world. From that time on, the old town saw new building construction and stepped forward toward a different future. To accommodate more tourists and promote economic growth, the contemporary new buildings gradually expanded into the outskirts' of the old town area, part of which functioned as factories. Since the factory buildings were large and were in different colors, and different styles compared with the majority of buildings in the old town, the buildings resulted in a disharmonious city-scape and took away from the attractiveness of Lijiang.

In 1992, Lijiang received approval from the central government of China to construct an airport. In the same year, the state government designated Jade Dragon Snow Mountain as one of the first group of tourist resorts at the state-level. The airport has been in service since 1995. Now, it consumes an area of 120 hectares, has 6 terminals and serves around 1 million passengers per year. The airport has the routes serving Kunming, Xishuangbanna, Beijing, Shanghai, Guangzhou, Chengdu, Shenzhen, Guiyang and other places as well, largely improving transportation in Lijiang. Because of the complex topography, transportation had been a significant obstacle constraining the economic growth of Yunnan Province for a long time. Therefore, the government made many efforts and spent considerable money on transportation improvements. The airport was one of these actions.

One of the milestones in the process of developing tourism in Lijiang was the tourism planning conference in the Northwest Part of Yunnan Province in the year of 1994. At this conference, the local government of Lijiang declared its intention to apply for the "World Culture Heritage" designation by the United Nations Educational, Scientific and Cultural Organization (UNESCO). From that time on, Lijiang took a series of actions to prepare for the success of the application. The actions included speeding up the infrastructure construction, preserving the ecosystem of Lijiang District, and gradually tearing down the factory buildings in

the outskirts' of the old town area which were detrimental to the vision and the ecosystem of Lijiang. Several months later, the contemporary Premier Rongji Zhu visited Lijiang and pointed out that "developing tourism is important to Lijiang's economic growth and cultural preservation", which increased the awareness of residents in Lijiang and advanced the tourism industry in Lijiang.

While everyone was confident about Lijiang's bright future in 1995, unfortunately, a catastrophic magnitude 7.0 Ms earthquake occurred in Lijiang on Feb. 3rd, 1996. Two hundred people died in the earthquake and fourteen thousand were injured. The earthquake caused major damage to numerous community facilities, infrastructure, reception facilities and other settlements in the region. Many buildings were significantly damaged or destroyed. In the aftermath, the damaged high-rise buildings in the area were torn down and reconstructed as traditional single-family dwellings. Along with earthquake reconstruction assistance from the provincial government and the World Bank, which was used to restore many traditional streets, bridges, and canals, this played a major role in Lijiang's efforts to achieve designation by UNESCO as a World Heritage Site on December 4, 1997.

The Kunming World Horticulture Exposition, held in 1999 in the northeastern suburb of the Golden Temple in Kunming scenic spots, about 4 kilometers from Kunming city, was another opportunity for the tourism development of Lijiang. The exhibition area covers an area of 218 hectares of land (Kunming World Horticulture Exposition, 2010), and collectively includes ninety five different garden styles all over the world. The diversity and beauty of the gardens in the exposition successfully attracted considerable tourists home and abroad to Kunming at that time. Because Lijiang is close to Kunming, many travel agencies developed "three or five days tours to the Expo, Dali (another ancient town in Yunnan Province) and Lijiang" to encourage tourists to spend more time and more money in Yunnan Province. The

tourism route from Kunming to Lijiang has been very popular since then even after the exposition in Kunming.

With the development of Lijiang, the local culture gradually received more attention as well. In the year of 2003, Dongba culture, the originally local culture with a history of about 800 years, was successfully designated to be the “Memory of the World Heritage” by UNESCO. Also, the three parallel rivers in the old town of Lijiang were designated as “World Natural Heritage” by UNESCO. Together with the former designation of “World Heritage Site”, Lijiang became the city with three World heritage designations in 2003, which is very rare throughout the world. In the same year, the original Lijiang County was divided into two counties, Jade Dragon County and Ancient Town District, which covers the old city of Lijiang.

In 2008, the municipal government further clarified the overall objective of tourism development in Lijiang by building an international tourism brand to attract more tourists in the future. At the same time, the government put forward “six transformations” to update the tourism industry, which contained 1) the transformation of the tourism dominant body from government-oriented to market-oriented; 2) the change of profiting approaches from focusing on quantity to concerning high quality and efficiency; 3) the gradual transition from extensive quantity to intensive quality; 4) the diversity of tourism related products, not only sightseeing products but also providing tourists with the opportunity to experience and become involved in tourism products; 5) the functional shift of Lijiang from simply a tourist destination to a travel hub; 6) the change of tourism management approaches from being dominated by the administrative means to managing tourism by law.

Table 4.1 Summary of Tourism Development in Lijiang

Year	Events
Before 1980	Almost no tourists in Lijiang
1982	Designated as Historic and Cultural City by the Central Government of China
1985	The provincial government of Yunnan Province proposed to develop tourism in Lijiang "Tourism First" Development Strategy is established
1990	Lijiang is approved by Chinese Central Government as a tourism destination to open to the world
1992	The airport of Lijiang was planned and began to implementation
1994	First Tourism Planning Conference of Lijiang is held by Yunnan Provincial Government The decision of applying for "World Culture Heritage" was declared in the conference The contemporary Premier Rongji Zhu visited Lijiang
1995	The airport of Lijiang began service tourists
1996	7.0 Ms earthquake happened Assistance from World Bank and all levels' governments in China carried the ancient town through the reconstruction and restoration
1997	Lijiang obtained the title "World Heritage Site" in Dec 4 th , 1997 from UNESCO
1999	15 th World Horticulture Exposition is held in Kunming, the capital of Yunnan Province Lijiang was one of the sub-exposition sites The contemporary President Zenmin Jiang visited Lijiang
2003	Dongba culture (the mainstream culture of Lijiang) is designated as "Memory of the World Heritage" by UNESCO The town layout, especially the water system, is recognized as "World Natural Heritage" by UNESCO
2008	The local government put forward "six transformations" of the tourism industry to encourage a more sustainable manner of tourism development

Source: compiled by author from the official website of Lijiang County and Lijiang,

<http://www.lijiang.gov.cn/>

CHAPTER 5 - Analysis of Tourism in Lijiang

In Chapter 4, the author described the tourism development and milestone events impacted the tourism industry in Lijiang in chronological order and with a descriptive method. This chapter will do both a qualitative and a quantitative analysis of the thirty six indicators in social, economic, cultural and political dimensions mentioned in Chapter 3 to provide a more vivid picture of the tourism industry in Lijiang over the past thirty years.

Residential Population Analysis

During the 18 years from 1990 to 2008, the total population of residents in Lijiang increased by 38% over that of Yunnan Province which increased by 18% (see Table 5.1). In 1990, the total population in Yunnan Province was 1,014,594. After 18 years, the total population reaches 1,194,995. During the same period, the total population of residents in Lijiang increased from 25,379 to 35,058. Before 1990, however, Lijiang shared similar population increase/decline rates to that of the Yunnan Province.

For a community, the total population is decided by three factors, migration rates, fertility rates and mortality rates. While the fertility rates and mortality rates of Lijiang and Yunnan Province are almost the same, we can safely conclude from the data provided in Table 5.1 that many immigrants moved into the ancient town over the past 18 years and the migration rate of Lijiang was much higher than that of the Yunnan Province. Indeed, the high migration rate is a good reflection of the impact of tourism on the population composition. In other words, tourism in Lijiang has changed the population composition so dramatically that the percentage of immigrants in the city was much higher in 2008 than in 1990 and the proportion of the indigenous population was much lower in 2008. Immigrants here refer to individuals who

moved into Lijiang from all other areas other than the ancient town of Lijiang after 1980 and lived in Lijiang as a permanent resident.

However, if we review the percentage change in the following table (see Table 5.1), the conclusion above seems unbelievable. As Table 5.1 shows, the immigrant percentages in 1990 and 2008 stay relatively stable, changing only 3 percent, from 33% in 1990 to 30% in 2008. Also, the proportion of indigenous population remains about the same as it was in 1990. Since indigenous population is the carrier of local culture and customs and a stable proportion of indigenous population is considered one of the indicators to measure the sustainability of tourism, it deserves attention and effort to investigate further what happened to the indigenous population in Lijiang over the 18 years.

Table 5.1 Population Change from 1990 to 2008

Place \ Year	1990		2008		Percentage Change
Ancient Town of Lijiang	25,379		35,058		38%
Indigenous Residents	16,999	67%	24,627	70%	45%
Immigrants	8,380	33%	10,421	30%	24%
Yunnan Province	1,014,594		1,194,995		18%
Tourists in Ancient Town of Lijiang	160,000		4,237,000		2548%

Source: all the raw data are collected and complied by the author on the basis of statistical data provided by the Bureau of Tourism, Government of Lijiang County. Retrieved Jan. 31, 2010 from the website of the Ancient Town of Lijiang, http://www.lijiang.gov.cn/pubnews/examples/index.asp?news_basic_folder=tjgb

Since a large migration rate usually means the proportional change of indigenous residents, why does the percentage of the indigenous population remain stable? After reviewing the data collection methods, the author finds the answer lies in the definition of “indigenous citizens” as applied in the census by the Chinese Statistical Bureau. In the census provided by the Bureau of Tourism, Government of Lijiang County, “Indigenous citizens” refer to both the

residents living in the ancient town before developing tourism and the immigrants coming from the nearby villages and small towns within the boundary of Lijiang County. According to this definition, even outsiders can moving into Lijiang. As long as they are indigenous residents' in Lijiang County, are counted as original residents of the ancient town of Lijiang. In this case, it is not convincing to conclude that the stable proportion of original residents indicates most of the original population still stays in Lijiang. Otherwise, the stable original percentage and high migration rate together indicate quite a few of the rural residents, from rural surrounding Lijiang, moved into the old city and tourism thoroughly changed their life style. Indeed, the following analysis about the stores in the main streets of the old city of Lijiang demonstrates this conclusion.

Analysis of Stores in the main streets of Lijiang

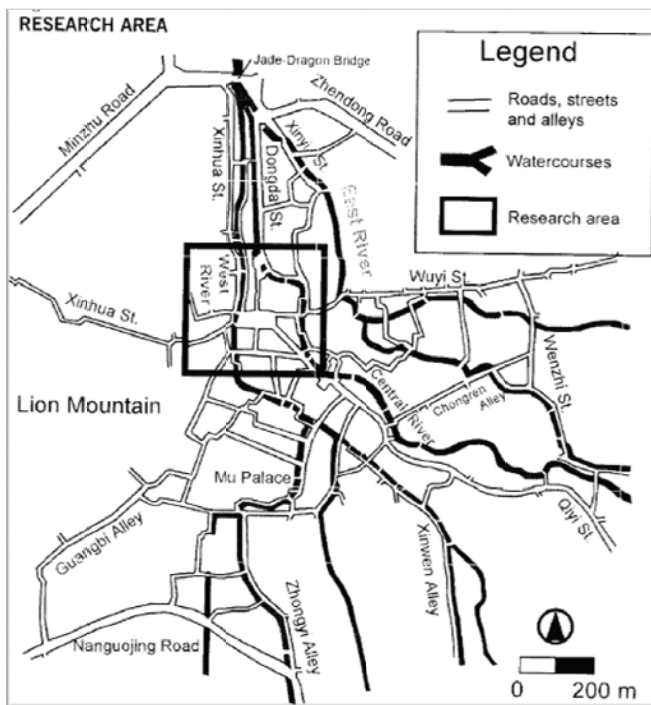
Because of the impossibility for the author to collect first-hand materials about stores in Lijiang, all the raw data in this section come from former scholars. The data in the year of 2000 come from the Japanese scholar Yamamura Takayoshi (2001, p. 48), that of 2002 come from Bao Jigang & Su Xiaobo (2004, p. 427-436), and that of 2004 come from Huang Jue, Zhang Tian-xin and Yamamura Takayoshi (2009, p. 23-26). The research area of Takayoshi's study (2000; 2004) covers the central tourist spot of the old town of Lijiang, which covers an area of approximately 230 meters (north and south) by 200 meters (east and west) (see Figure 5.1). Moreover, historical data shows most of the buildings and structures in the area had been established before the foundation of the People's Republic of China in 1949.

Business Categories

Between the years from 1995 to 2004, the proportion of the stores open to tourists increased dramatically from 36% to 75.1%, while that of stores serving the local population

decreased from 64.0% to 24.9% (see Table 5.2). In the year of 2000, there were totally 286 shops in the research area, but before 1995, there were only 50 stores in the area. In other words, 236 stores were newly opened after the year of 1995, which indicates a dramatic building use change (see Figure 5.2) from residential to commercial. Till the year of 2004, the number of stores in the research area reaches 357, increasing 614% compared with 1995. Since the total area is the same, the single area for each store is reducing and the land use density is increasing with the development of tourism.

Figure 5.1 Research Area



Source: from Takayoshi, 2000, p. 220.

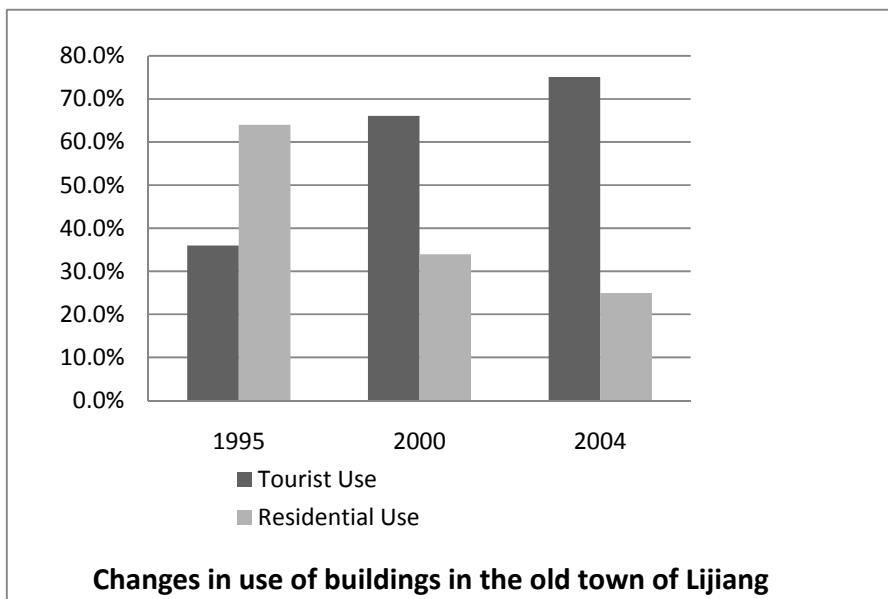
Table 5.2 Business Categories of Shops in the Research Area

Year	Number of Shops			Percentage			Percentage Change		
	1995	2000	2004	1995	2000	2004	1995/2000	2000/2004	1995/2004
Tourist shops	18	189	268	36.0%	66.1%	75.1%	950.0%	41.8%	1388.9%
General shops	32	97	89	64.0%	33.9%	24.9%	203.1%	-8.2%	178.1%
Total	50	286	357	100.0%	100.0%	100.0%	472.0%	24.8%	614.0%

Shops were classified as belonging to the tourist industry when the shops were determined on the basis of actual observation and interviews to be tourist oriented because they sell commodities or services to tourists, or when replies indicated that more than half of the sales were to tourist. Shops were classified as belonging to the general business category when the shops were determined on the basis of actual observation and interviews to be selling commodities or service to the local population, or when replies indicated that more than half of the sales were to the local population.

Source: Compiled by author from the research of Takayoshi, 2000, p. 224.

Figure 5.2 Changes in use of buildings in the Research Area



Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Ownership Analysis

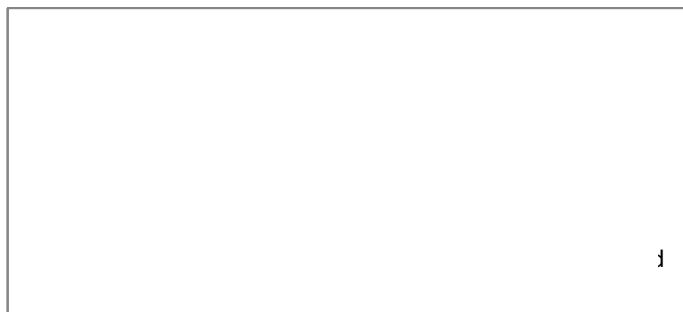
According to the data of 2000 collected by Takayoshi, 77.8 percent of the tourist shops are operated by renters, only 16.4% were owned by indigenous residents (see Table 5.3 and Figure 5.3). For general shops in the same year, the rental proportion also reaches a high value, 67%. Therefore, it can probably be appropriate to view the life mode of indigenous residents in the central area of the old town as being changed since 1995, when buildings that had previously been used as residences were changed and reshaped. This conclusion reaches a consensus with the former thought about the high migration rate of indigenous population of the old town of Lijiang. Also, the majority of the immigrants in Lijiang engage in the tourism industry and serve tourists rather than local residents, which undoubtedly promotes the transformation of the ancient town of Lijiang from residential to commercial functions.

Table 5.3 Ownership Categories of Shops in the Research Area

	Ownership (Number)				Ownership (Percentage)			
	Rented	Own	Unidentified	Total	Rented	Own	Unidentified	Total
2000								
Tourist shops	147	31	11	189	77.8	16.4	5.8	100.0
General shops	65	13	19	97	67.0	13.4	19.6	100.0
Total	212	44	30	286	74.1	15.4	10.5	100.0

Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000, p. 226.

Figure 5.3 Tourist Shops Ownership in the Research Area



Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Racial Composition of Store Operators

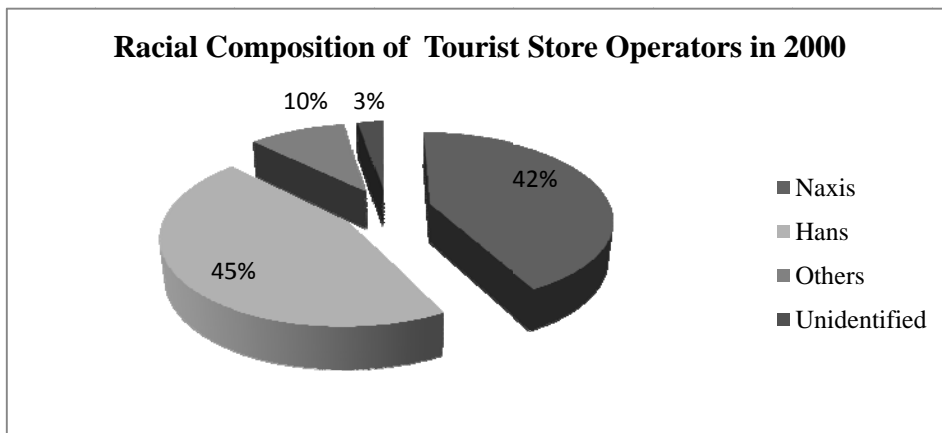
With more and more Hans people, the major ethnic group of China, starting up new stores in the central tourism spot of the old town, the proportion of the natives in Lijiang, Naxis, is gradually declining. The racial composition of the stores' operators in the research area supports the above viewpoint. According to Takayoshi (2000, p. 226), for all the 286 stores in 2000, 43 percent of store operators are Naxis, which is far lower than the racial proportion of Naxis in Lijiang County, 58.7% (see Table 5.4). In addition, compared with the Naxis population, Hans prefer tourist shops over general shops. For example, Hans operate 45 percent of the gift stores but only 29.9 percent of the general stores. Turning to the tourism business category, it was found that Hans operate the majority of tourist stores, totaling 45.0% (see Figure 5.4). This, and the fact that 147 (78%) of 189 stores with tourism status are rented rather than owned by original residents, shows that the influx of population from outside the region is a factor that has been largely involved in the increase of tourism as a business in the locality.

Table 5.4 Racial Composition of Store Operators in the Research Area

Year	Racial Composition (Number)					Racial Composition (Percentage)				
	Naxis	Hans	Others	Unidentified	Total	Naxis	Hans	Others	Unidentified	Total
2000										
Tourist shops	80	85	19	5	189	42.3	45.0	10.1	2.6	100.0
General shops	44	29	6	18	97	45.4	29.9	6.2	18.6	100.0
Total	124	114	25	23	286	43.4	39.9	8.7	8.0	100.0

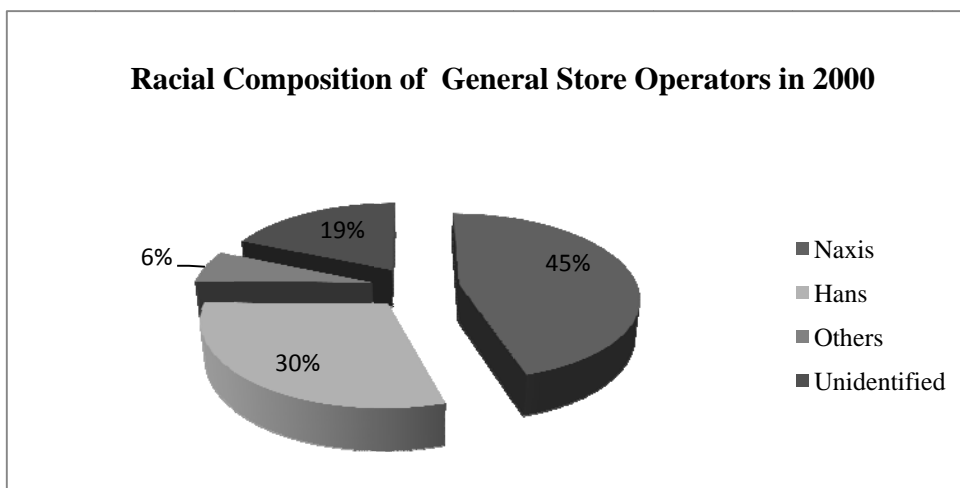
Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Figure 5.4 Racial Composition of Tourist Store Operators in the Research Area



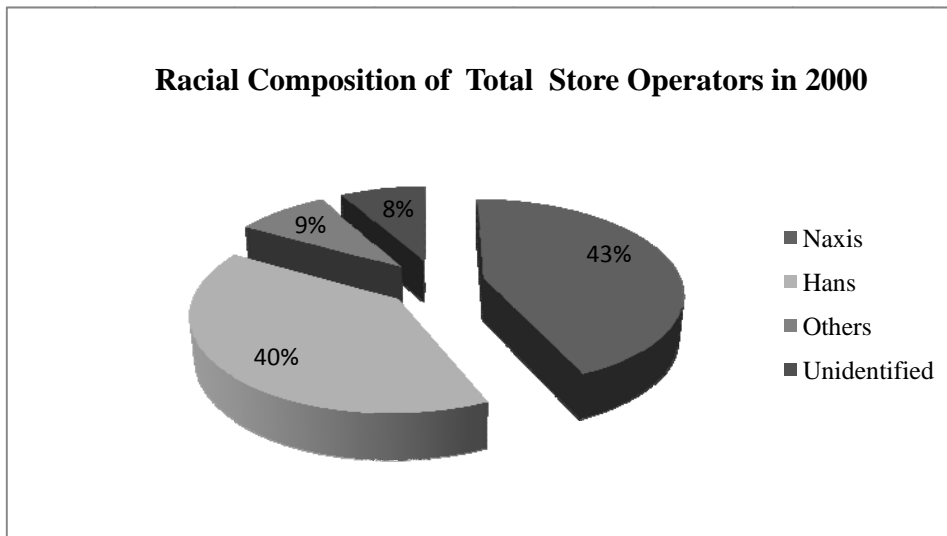
Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Figure 5.5 Racial Composition of General Store Operators in the Research Area



Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Figure 5.6 Racial Composition of Total Store Operators in the Research Area



Source: Compiled by author on the basis of raw data collected by Takayoshi in 2000

Tourist Population Analysis

Another remarkable difference, shown in Table 5.8, is growth in tourist population between 1990 and 2008. Over the past 18 years, the tourist population in Lijiang increased about 26 times from 160,000 in 1990 to 4,237,000 in 2008, which is 121 times that of the resident population of Lijiang in 2008 (see Table 5.8). What does such huge tourist population mean to the old town of Lijiang? The author calculates the population density of Lijiang and then gives other cities' population density as a reference to help people understand the impact of the tourist population upon Lijiang. Take the tourist population in 2008 for example. Because Lijiang covers an area of 3.8 square kilometers (1.47 square mile) and its resident population is 35,058, the resident population density of Lijiang in 2008 is 9,226 persons / km² (23,849 persons / sq mi), which is much higher than many other big cities. Beijing's population density in 2008 was 973 persons / km² (2,519 persons / sq mi) and Shanghai had a population density of 2,804 persons / km² (7,260 persons / sq mi) in 2005 according to the statistical data of National Bureau of Statistics of China in 2008. Singapore's population density was 7,022 persons / km² (18,189

persons / sq mi) in July 2005 according to the data from the Department of Statistics in Singapore. While those metropolises are comprised of modern apartments and skyscrapers, the majority of the buildings in Lijiang were original created for residential use with only two or three floors. Therefore, it is not overstated to say that the resident population of Lijiang itself has reached a very high capacity.

Table 5.5 Population Change from 1990 to 2008

Place \ Year	1990		2008		Percentage Change
Ancient Town of Lijiang	25,379		35,058		38%
Indigenous Residents	16,999	67%	24,627	70%	45%
Immigrants	8,380	33%	10,421	30%	24%
Yunnan Province	1,014,594		1,194,995		18%
Tourists in Ancient Town of Lijiang	160,000		4,237,000		2548%

Source: all the raw data are collected and compiled by author on the basis of statistical data provided by the Bureau of Tourism, Government of Lijiang County. Retrieved Jan. 31, 2010 from the website of the Ancient Town of Lijiang, http://www.lijiang.gov.cn/pubnews/examples/index.asp?news_basic_folder=tjgb

When the tourist population is added to the indigenous population, the population density of Lijiang becomes even higher, as expected. Take the tourist population in 2008 for example. If we ignore the difference of the tourist population between different seasons but distribute it to 365 days on average, the tourist population density per day is 3,080 persons / km² ((4,237,000/365)/3.8). Nevertheless, because of the huge difference attributed to tourist population between every season in practice, the tourist population density on some days would be considerably higher than 3,080 persons / km² (7,974 persons / sq mi) and the actual population density of Lijiang is over 12,306 persons / km² (31,862 persons / sq mi) (=3,080 persons / km² + 9226 persons / km²), almost half of the population density of the islands of Manhattan, NY (66,940 persons / sq mi) in the year of 2000 according to the 2000 U.S. Census.

It is hard to imagine how this ancient town successfully accommodates a tourist population which is 120 times larger than its resident population with only two-story and three-story buildings. Undoubtedly, Lijiang is running the high risk of being unable to cope adequately with the social and cultural repercussions of the dramatic increase in tourists.

Tourism Economic-Benefit Analysis

It is no doubt that the tourism industry in a community is advantageous in promoting economic growth and increasing local revenues, but it is not so easy to assert that tourism has played a similar role in promoting citizens' and farmers' income as well. To detect how tourism in the community of Lijiang influenced individuals' income, the author made comparisons of total revenue with incomes of citizens and farmers surrounding the old city of Lijiang.

Due to the difficulty in accessing the revenues and individual's income over the past 25 years from 1985 to 2010, the author collected the data on the tourism revenues and personal income from the year of 2001 to 2007 to analyze the impact of tourism upon local total revenue and personal income. The following table is the summary information of tourism revenue and personal income from 2001 to 2007 (see Table 5.6).

Table 5.6 Tourism Revenue and Per Capital Income of Lijiang from 2001 to 2007 (RMB)

	2001	2002	2003	2004	2005	2006	2007
Total Revenue (Billion RMB)	2.043	2.337	2.404	3.176	3.858	4.629	5.824
Citizens Per Capital disposable Income / year (RMB)	6368	7005	7377	9116	9290	10460	11918
Rural Residents Per Capital disposable Income / year (RMB)	907	1112	1203	1324	1459	1610	1922
Citizens' Engel Index	----	42.60%	42.30%	48.30%	47.10%	46.70%	----
Rural Residents' Engel Index	----	61.00%	61.00%	56.70%	----	----	----

Source: all the raw data were collected and compiled by the author on the basis of the statistical data provided by the Bureau of Tourism, Government of Lijiang County. Retrieved Feb 3, 2010 from the website

http://www.lijiang.gov.cn/pubnews/examples/index.asp?news_basic_folder=tjgb

Note: “Rural Residents” in the table refers to the population living in the boundary of Lijiang County with a profession of agriculture. Total Revenue from tourism refers to the total amount spent in Lijiang County (not only the old town of Lijiang, but other resort spots within in Lijiang County) by tourists in the course of their journey.

Table 5.7 Growth Rate of Tourism Revenue and Per Capita Income of Lijiang (US\$)

	Total Tourism Revenue per year	Annual Average Growth Rate	per capita disposable income of urban residents	Annual Average Growth Rate	per capita disposable income of rural residents	Annual Average Growth Rate	
Year	US\$ (Million)	Percent	US\$	Percent	US\$	Percent	Year
2001	299.1	0%	932.3572	0%	132.7965	0%	2001
2002	342.2	14%	1025.622	10%	162.8111	23%	2002
2003	352.0	3%	1080.088	5%	176.1347	8%	2003
2004	465.0	32%	1334.7	24%	193.8507	10%	2004
2005	564.9	21%	1360.176	2%	213.6164	10%	2005
2006	677.7	20%	1531.479	13%	235.7247	10%	2006
2007	852.7	26%	1744.949	14%	281.4056	19%	2007

Source: all the raw data are collected and complied by author;

Note: 1 CNY (China Yuan Renminbi) = 0.1463 US\$

First, the increasing total tourism revenue per year verifies that the tourism industry has brought huge money into Lijiang and positively encouraged the economic growth of the entire community. As indicated in Table 5.7, the total revenue of tourism in the community increases from 2.043 Billion CNY (299.1 Million dollars) in 2001 to 5.824 Billion CNY (852.7 Million dollars) in 2007 (285%).

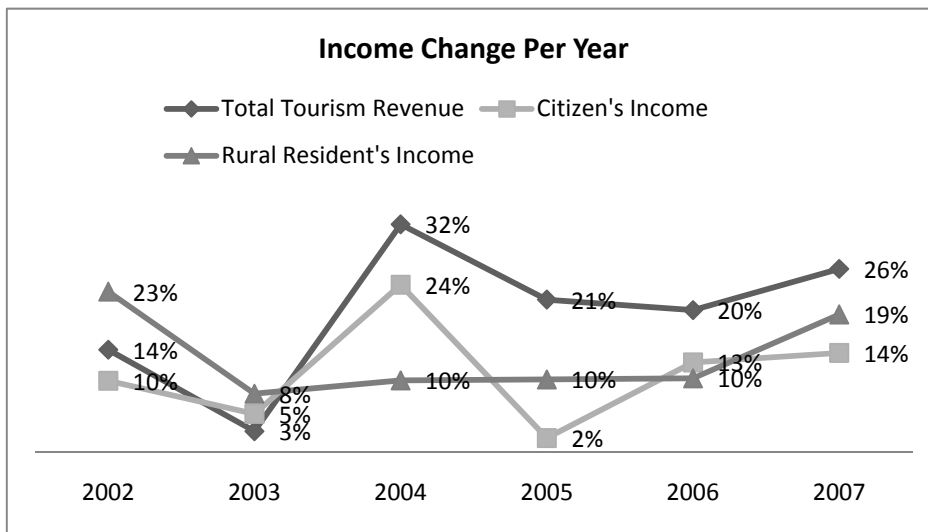
Second, the major positive percentage changes shown in Table 5.7 indicate that both citizens and rural inhabitants’ disposable income have increased during the period between 2001 and 2007. As it shows in the table, citizens’ income increased from 6368 CNY (\$932) per year in 2001 to 11918 CNY (\$1745) per year in 2007. Rural residents’ income increased from 907 CNY (\$133) per year in 2001 to 1922 CNY (\$281) per year in 2007.

However, is such increasing the result of the prosperous tourism industry in Lijiang or national economic growth trends? The author calculates the annual change rates and draws a

trend map to answer this question (see Figure 5.7). The author also assumes the increasing income is because of tourism development or is largely correlated with the tourism industry if the Annual Average Growth Rate of Per Capita Income shares a similar trend with that of Total Revenue. Otherwise, the coefficient of Per Capita Income and the tourism industry is not intense, which means the increasing income is not the result of the tourism industry but some other factors, such as national economic growth trends.

With the increase of tourism revenue, although both citizen's and rural resident's incomes have increased, rural resident's income doesn't share a similar trend with that of total revenue gained from tourism. As Figure 5.7 shows, rural resident's income increases at a generally stable rate around 10% per year, especially in the year between 2003 and 2006, rather than 32% increase from 2003 to 2004, 21% increase from 2004 to 2005, and 20 % increase from 2005 to 2006 as total tourism revenue shows. Based on the assumption, the distinct growth rate trend of rural inhabitant's income indicates that there is no intense relationship between the tourism industry and rural resident's income. Or, at least, the tourism industry in Lijiang has a very limited influence on rural resident's income. On the other hand, citizen's income shows a relatively more similar trend with that of tourism revenue, which indicates that citizen's income relies mostly on the tourism industry (see Figure 5.7).

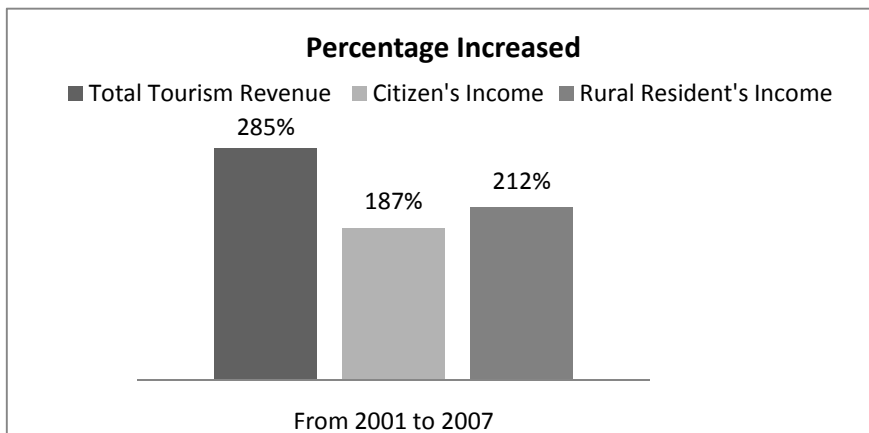
Figure 5.7 Annual Growth Rate of Per Capita Income



Source: figure courtesy of the author

Fourth, the total revenue of tourism increases much quicker than that of either citizen's income or rural resident's income in all the years except the year of 2003, which would be primarily explained by the outbreak of the illness of Severe Acute Respiratory Syndrome (SARS) that year. For example, while the total revenue of tourism in the year of 2007 is US\$852.7 million, approximately three times that of the revenue in the year of 2001, citizen's income during the same period increased only to 187%. Rural resident's income in the same period increased to 212% (see Figure 5.8).

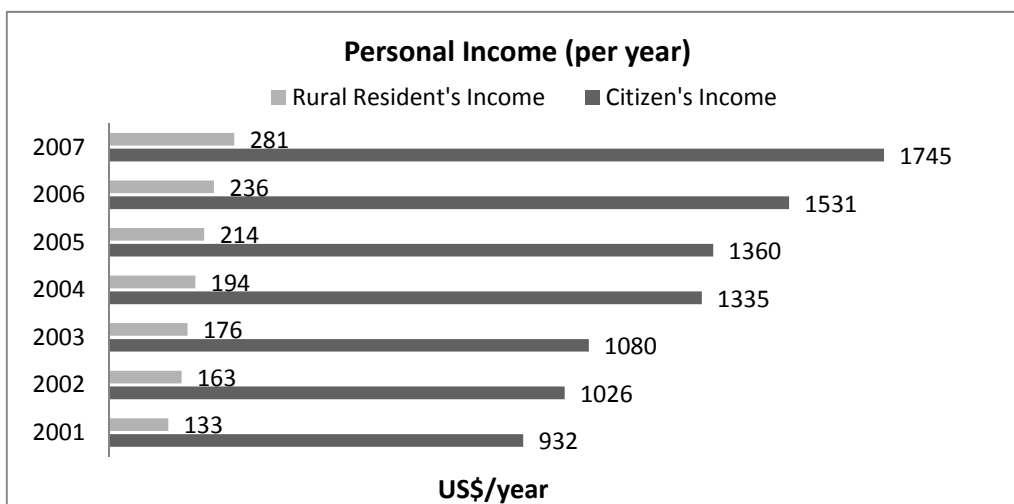
Figure 5.8 Per Capita Income Percentage Change



Source: figure courtesy of the author

Fifth, there is a big difference between citizen's and rural resident's incomes. As it shows in Figure 5.9, a rural resident earns only around one seventh of what a citizen earns. Admittedly, rural residents' earnings rise a little faster than citizens' income, however, the absolute earning difference of the two groups has been largely expanded, from US\$799 in 2001 to US\$1,464 in 2007. This reveals a severe social issue of poor-rich gap existing not only in Lijiang County, but potentially everywhere in China.

Figure 5.9 Per Capita Income in Lijiang County (\$US)



Source: figure courtesy of the author

Sixth, Engel coefficient analysis: Engel coefficients (the proportion of money used for food in the total consumption) of both urban and rural households are much higher than the average coefficient of Chinese households. According to the State Statistics Bureau of China issued a report on December 3, 2005, the Engel Coefficients of Chinese urban and rural households were 36.7 percent and 45.5 percent respectively. Compared with the living standards of other countries and areas in the world, there is still a relatively large gap between China and other countries. From 2003 to 2004, the Engel coefficient of developed countries such as the U.S., Great Britain and France was 9.15%, 13.11% and 17.52% respectively. That of South Korea was also less than 30%. Therefore, the burden on residents in Lijiang County to spend on food is heavy. The living standard of consumption other than food, such as in residence, culture, entertainment and service should be improved further.

Tourism Impacts on the Built Environment of Lijiang

According to the analysis of stores on the main streets of the ancient town of Lijiang from the year of 1995 to 2004, one obvious change in physical space within the old town of Lijiang is the increasing land use density, which challenges land use capacity to some extent. Generally speaking, however, the tourism industry in Lijiang has indirectly benefitted from the preservation of the traditional physical space over the past 25 years.

Since physical space is one of the important resources for the tourism industry, many governmental institutions and sectors, especially city planning departments, have made great efforts to protect the unique city form of the old town of Lijiang. Several accomplished strategies and planning schemes deserve attention. First, the guideline of “Reserving Old Town and Developing New Districts”, established by the Department of City Planning in Lijiang County in 1958 (Zhang, 2007, p. 28), effectively kept modern buildings and new construction

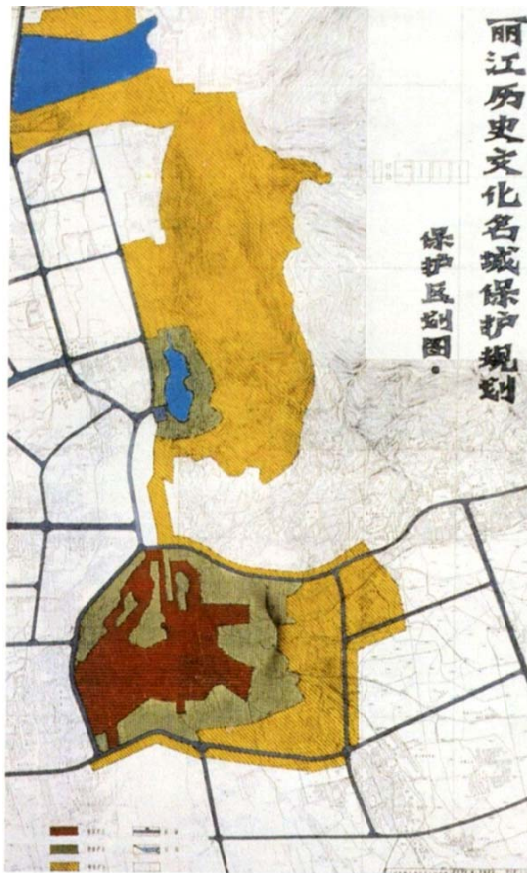
before the 1980s away from the old town of Lijiang, setting a good start in protecting physical space within the old town of Lijiang. At present, this principle, as a positive approach for Historic Cities Protection, has been approved and applied to many other historic cities and towns in China.

Second, the Historic Cities Designation assists physical space's conservation as well. In the beginning of the 1980s, the original comprehensive plan for Lijiang County proposed to construct a new arterial street across the old town of Lijiang to relieve the traffic conflicts between pedestrians and vehicles (Zhang, 2007, p. 28). If implemented, the physical space of the old town of Lijiang would have been dramatically changed. As Professor Liangwen Zhu wrote in the letter to the Governor of Yunnan Province in 1985, asserting that "the new street, just like a sharpened knife thrusting the heart of the old town, will attract, rather than release, traffic load and bring much greater traffic flow to the town in the near future....the overly broad new street destroyed the harmony and coordination of the traditional town..., and such constructional destruction shall be stopped immediately." The letter drew an extensive discussion and attention to the value of the historic cities and towns. After that, the system of Historic Cities' Designation was set up in China. In February, 1986, the old town of Lijiang became the third historic and cultural city in Yunnan province (Zhang, 2007, p. 25) and its physical space, unique city pattern were began to be officially protected by city planners and city scholars.

Currently, the physical space of the old town of Lijiang is primarily supervised by a Special Plan, Historic and Cultural Cities' Preservation Plan made by Department of Urban and Rural Planning in Yunnan Province (see Figure 5.10). Different from other historic cities, the historic and cultural value of Lijiang lies not only in certain buildings, but also in the integrated layout, which skillfully combines waters, mountains, streets, housing and bridges together and forms a charming and touching living space. Any change or demolition to any component of the

town would result in the decline of the overall attractiveness. Therefore, the goal of the Preservation Plan is to conserve the integrated town. Three most popular aspects are adopted in the Preservation Plan, containing “Area Protection”, “Line Protection” and “Point Protection”.

Figure 5.10 First Historic and Cultural Cities’ Preservation Plan of Lijiang (1988)

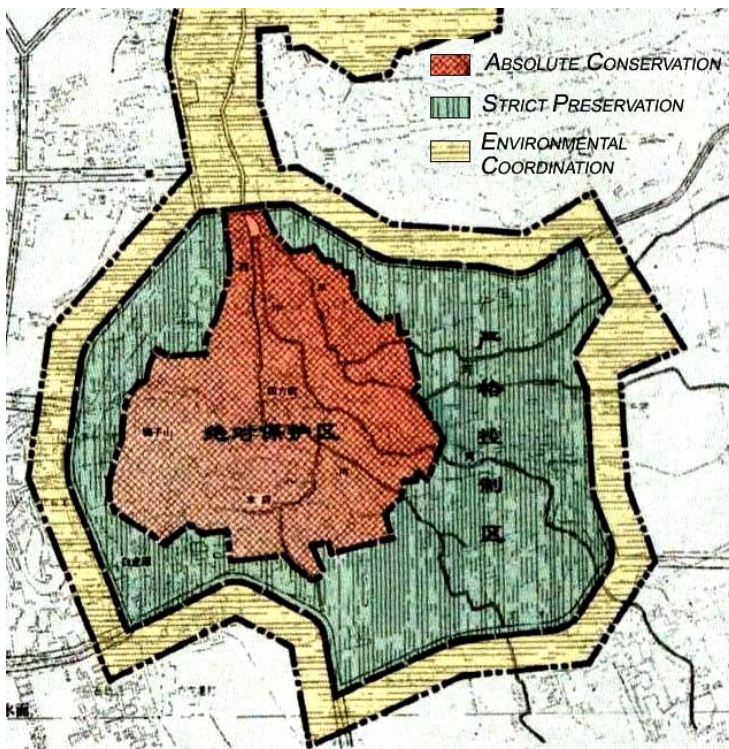


最早版（1988年）丽江历史文化名城保护规划

Source: Our Historic Cities and Historic Towns, 2007, p. 28

“Area Protection” refers to protect a certain district with relevant standards and principles. According to the Preservation Plan, the old town is divided into three districts: Absolute Conservation Area, Strict Preservation Area, and Environmental Coordination Area (see Figure 5.11).

Figure 5.11 Preservation Plan of Area Control Map



Source: *Our Historic Cities and Historic Towns*, 2007, p. 71.

“Line Protection” refers to street space protection and waters (rivers) protection (see Figure 5.12). This concept emphasizes the importance of street spirit and street life for the vigor and vitality of the city. The linear shaped and pedestrian-sized streets in the old town are required to be reserved and shall not be expanded. All vehicles, except for emergency and fire fighting trucks, are not allowed inside the old town area. Also, the pavements of the streets for maintenance shall adopt granite stones produced locally.

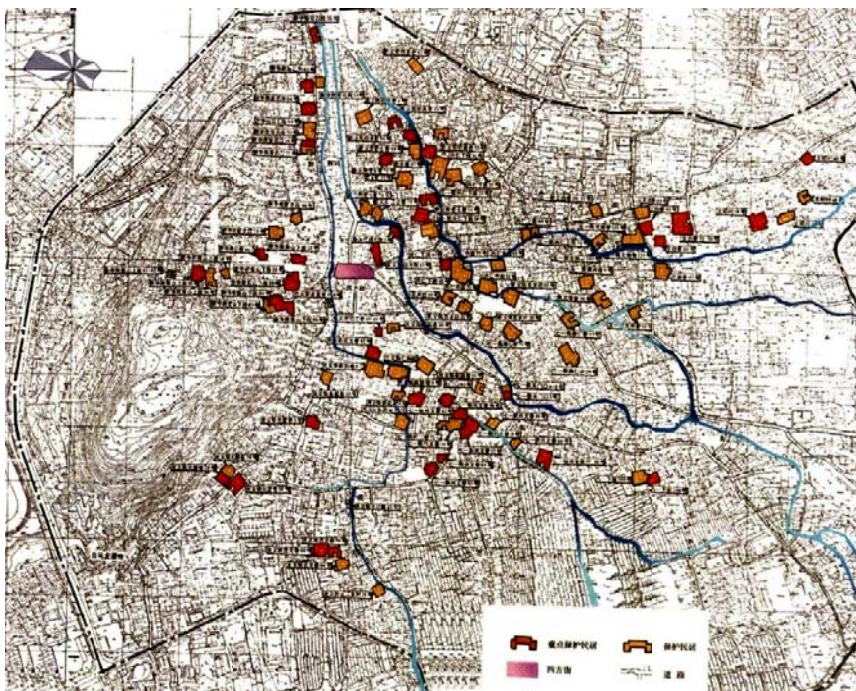
Waterfront areas within Lijiang are another protected linear space. The three rivers flowing by gravity make Lijiang unique and their importance can never be overemphasized for the entire physical space. The Preservation Plan explicitly states that the existing water systems, including the size of the channel, the location of flowing courses, levee and the banks, shall not be revised randomly either by private organizations or individuals.

Figure 5.12 Linear Space



“Point Protection” means to protect residential dwellings, courtyards, bridges, and certain buildings. Sixty six dwellings and courtyards in the old town of Lijiang have been designated by the Preservation Plan as protected dwellings at the end of 2007, and forty six buildings are priority (see Figure 5.13). Those courtyards are preserved by the Preservation Plan in the following respects: elevation materials, building forms and shapes, structure, plan layout, detailed decoration, and landscaping in the courtyards. The general preservation theory is to

Figure 5.13 Preservation Plan of Historic Dwelling Buildings and Courtyard



Source: Our Historic Cities and Historic Towns, 2007, p. 74

maintain old dwellings of the Naxis' building style and keep the traditional sense of the place. As for bridges, the Preservation Plan emphasizes regular maintenance and prohibits vehicles from passing over bridges. With the help and strict implementation of the Preservation Plan, the strategies played a positive role in conserving Lijiang's built environment, and the traditional and unique layout have been well saved and preserved so far.

Tourism Impact on Local Culture of Lijiang

In addition to the physical element, culture is another crucial component for the sustainability of tourism. While tourism helps conserve the built environment of the old town, it is a double-edged sword for the culture of Lijiang. By making good use of local culture, Lijiang has made great progress in promoting economic growth through tourism. At the same time, local culture has been appreciated and inherited as well. On the other hand, however, the local culture has been diminished by the tourism industry.

As a "World Heritage Site" designated by UNESCO and as a "National Historic and Cultural City" designated by the Chinese Central Government, Lijiang's long history and unique culture contributes much to such reputation. Lijiang was established eight hundred years ago by Naxis, an ethnic minority of China. Since then, Naxis have been the indigenous inhabitants and the great majority of the population in Lijiang and they form their unique culture, Dongba Culture. Dongba Culture is Dongba Religion's culture, named after the priest "Dongba", meaning "Intelligent". Different with other religions, Dongba Religion does not have its own churches or temples. All religious activities of Dongba are held in nature or urban public spaces to keep a close relationship and contact with human being's daily life. Dongba Culture includes Dongba hieroglyph, Naxi ancient music, Dongba painting, architecture and religious art. The core value of Dongba Culture lies in the religious books of Dongba, written by Dongba

hieroglyph. Those religious books cover a wide range of areas, including tales, war history, farming, marriage system and customs, music, paintings, building construction skills and technologies, and ritual procedures of Dongba and so on, all of which offer people precious references to do in-depth research and understand Naxis better.

With tourism development in Lijiang, especially after its successful application for World Heritage Site in 1997, Dongba Culture has received extensive attention from both abroad and home, and its value has been firstly fully realized by Lijiang indigenous inhabitants, which intrigues their determination and passion to cherish their unique culture. They realized from the eyes of tourists, in the past, that "the disadvantages and shortcomings they thought were indeed their strengths; some useless things might be the most valuable resources" (Jiang & Lu, 1999). They began to understand if "they do not treasure their own things, but to pursue exotic things, it somewhat seems like throwing away their golden bowl but picking up a broken tile bowl" (Jiang & Lu, 1999).

Therefore, to conserve local culture, a group of experts and scholars sponsored by the government of Lijiang County engaged in and conducted a comprehensive summarization and collation of Dongba Culture in the year of 1997 (Yang, 2004, p. 62), involving a variety of aspects of Naxis, such as natural landscape, history, festivals, weddings, funerals, customs, food costumes, fairy tales and folklore, music, dance, etc.. The summarization and systematic work introduces the history of Lijiang and the Naxis religion and culture accurately and professionally and provides theoretical and historical explanations to some unique phenomenon and living habits of Naxis, both of which do a great contribution to keep Dongba Culture alive and vigorous.

In addition, sponsored by the local government of Lijiang, "Dongba Culture School" is being launched as well (Yang, 2004, p. 67). In the school, young people are taught Naxis Dongba culture, hieroglyphic writing, a set of rituals, worship and music and dance skills, how to

play Naxi ancient music, and the techniques to make traditional crafts of Naxis, like Dongba wood carvings and paintings. Also, the elementary school within the ancient town of Lijiang has been asked to teach students Dongba language and to offer students at least a two-hour Naxi Culture course per week since September, 2003. It cannot be denied that the purpose of learning the Dongba Culture for most of the young is to cater to the needs of the tourism market for people who know the Dongba Culture to earn more money. However, the action and behavior itself act as a positive role in promoting the Dongba Culture's preservation and inheritance no matter whatever the purpose is. In addition to local schools providing training to young people, all tour guides of Lijiang are trained by Bureau of Tourism in Lijiang before receiving their tour certificates. However, other employees related to tourism such as store operators do not attend or receive any training related to the Dongba Culture. As for the training to visitors, while there is a great deal of information on the Dongba Culture, there are no institutions or agencies in Lijiang providing tourism-related trainings or education to tourists to protect local natural and cultural resources. Even though, generally speaking, the Lijiang government made great efforts in local culture conservation and preservation. The Regional Director of UNESCO in the Asia-Pacific office, Mr. Engelhardt confirmed Lijiang's behavior and determination on the Dongba Culture (Duan, 2002) because economic growth and development virtually depend on cultural resources in the long term.

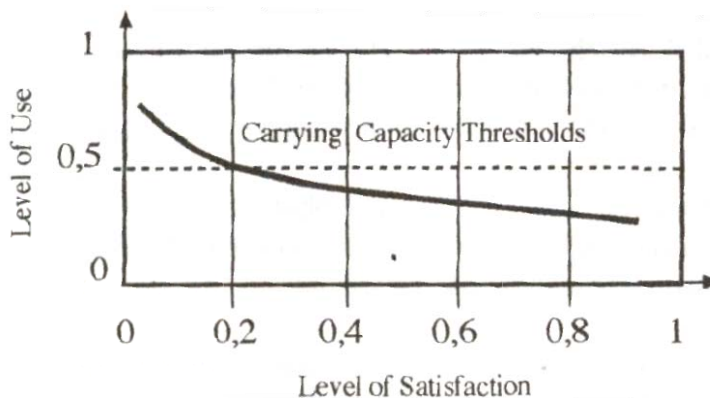
While tourism development intrigues people's compassion to protect Dongba culture, the tourism industry brings some negative impacts on the Naxi culture at the same time. Since Lijiang embraced the tourism sector, the Naxi culture has been greatly influenced and amalgamated by the Hans' culture. For example, the Yunnan dialect has gradually replaced the Naxi language and became the mainstream language in Lijiang. Young Naxi couples also teach their children Mandarin Chinese rather than the ancient Naxi language. Before 1990, however,

Naxi language was the major communication medium. At that time, even children learned Mandarin at school, although they talked with each other by the Naxi language in daily life.

Overemphasizing the economic benefits of the tourism industry is another reason why Dongba culture is impaired. In order to attract more tourists and raise tourism revenue, the governmental institutions and organizations hold numerous cultural festivals, arts festival and tourists festivals. In order to sell more tourism goods and commercial products, some private organizations modify and vary the originally ethnic performance and songs of Dongba culture. In order to make more profits, some private property owners sell historic books and paintings of Dongba culture randomly (Yang, 2004, p. 65).

In addition, excessive tourists in Lijiang in recent years converge on the old town of Lijiang making it so crowded that it looks like a central business district with a sense of commercialization. In January, 2008, Lijiang, once reputed with ancient culture and long history, was criticized by UNESCO because of its over-commercialization and great loss of indigenous inhabitants (Xiao, 2008). According to research by Coccossis and Parpairis, satisfaction levels declined for both tourists and residents in the period of rapid tourist growth (see Figure 5.14).

Figure 5.14 Personal satisfaction and the number of tourist population




Source: Coccossis and Parpairis, 1996, p. 173

Therefore, to ensure the satisfaction level of both tourists and local residents, recommendations are made to control the numbers of both tourists and residents.

Political Participation

According to the International Association for Public Participation, there are five stages of public participation in the planning process, which are Inform, Consult, Involve, Collaborate, and Empower (see Table 5.8). When the author applies these standards in evaluating the extent of public participation in the planning process in Lijiang, the author concludes that the participation in Lijiang is most critical in the first stage, be informed. While related information is published and open to the public in the website, such as providing the public with the Master Plan and Specific-Sector Plans, there are few people involved in the planning process. Indeed, there are almost no specific and legal mechanism or approaches encouraging the average citizen’s participation in planning process in Lijiang. Both tourism-related Master Plan and other Specific-Sector plans are made by experts, planners and the government in China. The tourism industry in Lijiang is greatly oriented by governments at all levels.

Table 5.8 Public Participation Evaluation



	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.

Source: International Association for Public Participation, retrieved March 1, 2010 from http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf

Summary

According to the analysis of resident population, the ancient town of Lijiang experienced continual population growth from 1990 to 2008 with an increasing rate twice of that of Yunnan Province. The increasing growth rates can be explained mainly by a high immigration rate in Lijiang fueled by the attraction of tourism and potential economic benefits. By the calculation of resident population density in Lijiang, the author finds the density is higher than many metropolitan cities such as Beijing, Shanghai, and Singapore. The resident population of Lijiang has arrived at an unsustainable upper capacity and it is time to take effective action to curtail immigration from other communities to the ancient town if at all possible.

The analysis and findings of stores in the main streets of Lijiang verify the relatively high migration rate by the following facts: 1) 74.1% of the stores in the research area are rented, only 15.4% of the stores are owned by store operators; 2) for racial composition, 43% of store operators are Naxis, which is far lower than the ethnic proportion of Naxis in Lijiang County (58.7%). The author also finds that the building use in the central core of Lijiang has been dramatically changed from residential to commercial, from serving the resident population to serving the tourist population. While 36% of the stores were opened to serve tourists in 1995, the percentage raises to 75.1% in 2008. In 1995, 64% of the buildings in the research area were of residential use but in 2004, only 25% of the buildings were for residential use. In addition, the author also finds that the majority of the immigrants in Lijiang engage in the tourism industry and serve tourists rather than local residents, which undoubtedly promotes the transformation of the ancient town of Lijiang from residential to commercial functions.

Since its successful application for World Heritage Site designation, Lijiang has attracted more and more tourists. Between 1990 and 2008, the tourist population of Lijiang increased by a factor of 26 times. The tourist population in 2008 was 121 times that of the resident population,

which means the population density of the ancient town is half the density of Manhattan, NY.

Considering the fact that Lijiang is composed of primarily a two-story and three-story buildings, it is running the high risk of being unable to cope adequately with the social and cultural repercussion of the dramatic increase in tourists.

With the increase of residents and tourist population in Lijiang, the land use density there doubled from 2000 to 2004, which somewhat challenges the traditional built environment and physical features. Fortunately, the Department of City Planning of Yunnan Province (DCPYP) gave considerable attention and made great efforts to protect the physical elements and spaces of Lijiang when developing the tourism industry. The most important strategies they adopted contain the following: 1) “Preserving Old Town and Developing New District”; 2) establishing the Historic Cities’ Designation system; and 3) making a Historic and Cultural Cities’ Preservation Plan. Because of those visionary actions, Lijiang’s traditional built environment is well preserved and saved.

In addition, the author finds the impact of tourism upon local culture is more positive than negative. The tremendous economic benefits brought by tourism shocked the population in Lijiang at first and basically changed people’s notions about their traditional culture. Then, residents took responsive actions to preserve the Naxi culture, including sorting out Dongba Culture, launching Dongba Culture School, teaching young people the Naxi language, etc.. But because of the excessive tourism in recent years, the Naxi culture faces paramount pressure of over commercialization and assimilation by the Hans culture. The fortunate thing is that the Naxi people and governments have realized the problems and placed more emphasis on the Dongba Culture in recent years.

As for the economic-benefit analysis of tourism, the tourism industry does contributes immensely to the economic growth of Lijiang and brings a large amount of tourist money into

the community. Total revenue of tourism in 2007 was 5.824 billion CNY (852.7 million US\$), increasing by 285% compared to that of 2001. Per capita income of both urban and rural residents has risen as well but at a relatively smaller rate, 187% and 212%. While citizen's income shows a direct relationship with tourism development, the relationship between rural resident's income and tourism development in Lijiang is not as strong and intense. Besides, the absolute income difference between citizens and rural residents from 2001 to 2007 is increasing at an increased rate, reflecting a typical but severe social problem with the gap between the wealthy and the poor and the gap between city and rural areas widening all over the nation.

In the political dimension, local residents and involved stakeholders don't participate in tourism related plan-making and the policy-making process. They are only informed about the decisions in or through a "top-down" manner. While the reasons are complicated, however, one important reason is because the perspectives of the Chinese people toward government are rooted in its traditional culture. Because China has been developed with centralized state power since over five thousand years ago, the mainstream attitude in China is accepting decisions made by the government even if unsatisfied. With the economic growth of China in recent years and the implementation of Open and Reform policy dating back to 1978, the traditional attitude toward government is being challenged by more and more people. But because practice is always much more slippery than theory, the majority of residents themselves do not have such a realization or interest in participating in public meetings although public participation is encouraged by all levels of government and Department of City Planning at all levels. Therefore, tourism in Lijiang is still oriented, dominated, and led by all levels of governments.

CHAPTER 6 - Evaluation and Suggestions for the Sustainability of Tourism in Lijiang

This Chapter summarizes all indicators in the four dimensions, converts their analyzed outcomes to the five-point scale of sustainability using the principles of measuring individual indicators by the five-point scale listed in the Methodology Chapter (see Table 3.6), and then creates a picture of sustainable tourism in Lijiang. Also, suggestions are offered to improve the deficiency or problematic actions towards tourism, and in turn, could lead tourism development toward a more sustainable future.

The following tables (see Table 6.1 and Table 6.2 and Table 6.3 and Table 6.4) are the summarization of individual indicators drawing a picture of tourism in Lijiang. By using the five-point scale and conversion standards mentioned in the Methodology Chapter (see Table 3.7), the study converts the result of each indicator into sustainable scales, which is included in the following tables as well.

According to the statistical table (see Table 6.5), seventeen indicators are identified in the social dimension, nine of which are described as potentially unsustainable, resulting in a percentage of 53; and three of which are unsustainable, resulting in 18 percentages. The potentially unsustainable indicators includes: the dramatic increase of Lijiang residential population; the declining proportion of Naxi ethnic population in Lijiang; the tremendous change of land use from residential to commercial mainly serving tourists rather than residents. All of the unsustainable indicators are tourist-related because of the increase and huge population of tourists visiting Lijiang, which indeed results in the overburden of land use intensity and population density and the declining tourist satisfaction.

In contrast with the gloomy outcome shown by social indicators, Lijiang has made great efforts and achievements in preserving local culture during tourism development (see Table 6.2). Among the five identified cultural indicators, 60% of them are potentially sustainable and 20% are sustainable, which demonstrates the positive impact of tourism upon local culture. While there is some space to make improvement, the Lijiang government has made positive progress and taken actions in cultural conservation, providing an example for other ancient towns hoping to protect their culture during tourism development.

As shown in Table 6.3, the outcome of economic indicators suggests that 71% of the seven economic indicators are described as intermediate, 14% are potentially unsustainable, and 14% of the indicators are listed as unsustainable. The problem preventing the sustainability of the economic dimension lies in the unfair distribution of the economic benefits of the tourism industry and the increasing income gap between urban and rural areas, which exists all over the nation.

The analysis of political indicators displays that 50% of the actions are sustainable, 25% are potentially sustainable, and 25% are potentially unsustainable. The sustainable part of tourism in the political dimension benefits from the positive support and efforts made by the governments and the actions of making tourism a part of the master plan. However, public participation – through public hearings and open meetings, publication of draft laws, rules and policies for public comment and other means – during planning making and policies making process is at the lowest stage. Public participation is now increasingly recognized to be an important mechanism for gathering the information and expertise on which rational regulation is based and for gaining public acceptance of and compliance with new laws and regulatory decisions. The government discloses the policies and decision about tourism related planning on

websites but there are still very few effective methods for the public to become involved in the decision-making process.

Table 6.1 Sustainability of Social Indicators

Key Themes	Indicators	Analysis Result		Sustainability				
		Quantitative	Qualitative	Sustainable Excellent	Potentially Sustainable Good	Intermediate Medium	Potentially Unustainable Poor	Unustainable Bad
Host Pop	Residential population (RP)	more than 2 times of increasing rates of Yunnan Prov.	Decreasing				X	
	Indigenous Population		Increasing				X	
	Immigrated Population	Naxis take 43.4%, compared to 58.7% in Lijiang Co.					X	
	Racial Composition						X	
	Number of Stores	Increase 614% from 1995-2004				X		
	Business Categories	Increased 1388, 9% from 1995-2004					X	
	Land Use Change	236 stores opened after 1995 with land use change from residential to commercial					X	
	Stores' Ownership	74.1% rented, 15.4% owned	most of original citizens' life has been dramatically changed				X	
	Way of Life						X	
	Racial Composition of Store operators	Naxis take 43.4%, compared to 58.7% in Lijiang Co.					X	
Tourists	Tourist Population	121 times of RP in Lijiang						X
	Land Use Density	Half of the Density of Manhattan, NY						X
	Tourist Satisfaction		Declining					X
Physical Environment	Building Dimension (height, size)		2 or 3 stories around 6-8 meters high	X				
	Building Style		Naxi Traditional Housing	X				
	Bridges' Preservation		Well preserved with strict regulations and policies	X				
	City Plan Layout's Conservation		Waters system is cognized as "World Natural Heritage" by UNESCO	X				

Table 6.2 Sustainability of Cultural Indicators

Key Themes	Indicators	Analysis Result		Sustainability					
		Quan	Qualitative	Excellent	Potentially Sustainable	Good	Intermediate	Potentially Unustainable	Unustainable
Culture	Retention of local customs & culture	World Heritage Site,							
		National Historic & Cultural City,							
		Conducting a comprehensive summarization and collation of Dongba Culture;		X					
	Shift in Level of Pride in Local Cultural Heritage	School taught Naxi culture							
		non-awareness of the preciousness and value Dongba Culture before 1980/		X					
		Passioned to protect Dongba Culture at present							
	Number of Native Language Speakers	might be increasing				X			
		Type and amount of training given to local residents and				X			
		Type of information given to visitors before and during site					X		
			website information, no training provided by agencies					X	

Table 6.3 Sustainability of Economic Indicators

Key Themes	Indicators	Analysis Result			Sustainability				
		Quantitative	Qualitative	Sustainable	Potentially Sustainable	Intermediate	Potentially Unsustainable	Unsustainable	
				Excellent	Good	Medium	Poor	Bad	
Income	Tourism Revenue	US\$852.7 Million					X		
	Citizens' Per capita Income	US\$1,744.95					X		
	Rural Residents' Per capita Income	US\$281.41						X	
Benefit Distribution	Percentage Change of Tourism Revenue	Increase 285% from 2001 to 2007					X		
	Percentage Change of Citizens' Income	Increase 187% from 2001 to 2007					X		
	Percentage Change of Rural Residents' Income	Increase 212% from 2001 to 2007					X		
	Absolute Difference of Per Capita Income between Citizen and Rural Resident	The difference of Per Capita Income between Citizen and Rural Resident rises to US\$1464 in 2007							X

Table 6.4 Sustainability of Political Indicators

Key Themes	Indicators	Analysis Result			Sustainability				
		Quantitative	Qualitative	Sustainable	Potentially Sustainable	Intermediate	Potentially Unsustainable	Unsustainable	
				Excellent	Good	Medium	Poor	Bad	
Political Participation	Local Resident Participation In Planning Process		Be informed staying in the first stage of Public Participation					X	
	Political supports at all level of governments		Tourism Industry in Lijiang is greatly supported financially and politically		X				
	Inclusion of Tourism into a community process as one of major components		Planners emphasizes the importance of tourism in making comprehensive plan and specialty historic planning for Lijiang	X					
	Tourism Related Master Plan		Planners emphasizes the importance of tourism in making comprehensive plan and specialty historic planning for Lijiang	X					

Table 6.5 Summary Table of Sustainability Evaluation

Dimension	Sustainability										Indicator Numbers	
	Sustainable		Potentially Sustainable		Intermediate		Potentially Unsustainable		Unsustainable			
	Excellent		Good		Medium		Poor		Bad			
Social	4	24%	0	0%	1	6%	9	53%	3	18%	17	100%
Cultural	1	20%	3	60%	1	20%	0	0%	0	0%	5	100%
Economic	0	0%	0	0%	5	71%	1	14%	1	14%	7	100%
Political	2	50%	1	25%	0	0%	1	25%	0	0%	4	100%
Total	7	21%	4	12%	7	21%	11	33%	4	12%	33	100%

Suggestions for a more sustainable tourism development in Lijiang

The above observations suggest certain public policy implications for tourism planning and management. Lijiang has already reached the crucial stage of sustainable tourism development, when the evaluation of the sustainability of the tourism industry can be valuable in providing general guidelines, which can be refined over time through trial and error.

Suggestions for the Social Dimension

As mentioned before, with tourism development in Lijiang, more and more immigrants poured into Lijiang engaging in gift shops or other small businesses serving tourists; at the same time, quite a proportion of indigenous residents there rented their houses to immigrants and moved out of the ancient town, resulting in a declining racial proportion of the Naxi ethnic population in the area. The tremendous tourist population in Lijiang leads to speedy land use change and horrible land use intensity threats, both of which diminish the sustainable development of Lijiang as well. All of the facts demonstrate the need for local authorities to formulate carefully more detailed policies oriented towards development control and population control (both residential population and tourist population) through planning and management,

with the aim of achieving optimum capacity without saturation and keep the proportion of the indigenous population intact. As already indicated, it is important to stress that such policies should define the maximum land use intensity and population density of Lijiang, and the maximum or optimum capacity of tourist population within the context of the social environment. Urgent application of such measures are required, based on land use intensity, population density, declining tourist satisfaction and warning of over-commercialization from UNESCO in 2008.

Suggestions for the Cultural Dimension

The conservation of the Naxi culture is essential if sustainable tourism is to be developed. There can be no doubt that the local culture is Lijiang's greatest asset and that of whatever type of tourism the community wishes to develop. The government has made progress in protecting culture by providing training to young people and tour guides, launching agencies and schools teaching the Naxi culture and making a collection and summarization of the Dongba Culture. However, there is no culture preservation related training provided to store operators or tourists by agencies as yet. In addition to the indigenous population, stores in Lijiang are another crucial carrier of local culture and the recognition of store operators to respect and protect the Naxi culture have a positive meaning to culture conservation and sustainable tourism. As long as store operators benefit from tourism, they should be responsible for protecting the local culture. Also, if government institutions or other agencies could provide tourists with information on the Naxi culture, and environmental protection during their tourism trips, not only would the Naxi culture be well known, but also the information would be advantageous to tweak tourist's passion and interests in the Naxi culture. It is necessary to inform tourists that the Naxi culture belongs to everyone in the world and every tourist of Lijiang. Therefore, it is the responsibility of every tourist to make their contribution towards protecting the Naxi culture and support a more

sustainable future. In that case, it is more likely for tourists to watch their own behavior and enjoy a better tourism experience in Lijiang.

Suggestions for the Economic Dimension

The severe problem of the economic dimension impacted by tourism is the unfair distribution of benefits between rural and urban areas. While the income of residents within the boundary of the ancient town is improved by tourism, that of rural residents has a weak relationship to tourism. However, because of tourism development, surrounding areas also assume burdens caused by the tourists increasing such as air pollution, heavy transportation demand and the eviction from their original villages in support of new construction such as airports or other facilities supporting tourism. In other words, rural residents are also impacted by the tourism industry but get little benefit from such. That is one possible explanation for the increasing absolute differences of income levels. To solve this problem, the strategies encouraging tourists to spend more time and more money in the outskirts of Lijiang are necessary. One possible solution, which might bring some benefits of tourism to rural areas, is to open new hotels in the outskirts of Lijiang. The solution may help solve the extreme capacity and density in the ancient town as well.

Suggestions for the Political Dimension

The greatest weakness of the tourism related decision-making process is the deficiency of public participation, which has a direct relationship with the Chinese centralized political system and traditional Chinese conception of keeping silent towards governmental decisions, thus an inherent reluctance to participate in the decision making process. While it will take a long time to change all of the people's minds, some Chinese citizens want a voice in the decisions that affect their lives, and some activists have publicly called for change. The good thing is that

Chinese leaders have come to recognize that achieving effective regulation in a rapidly changing modern society requires opening up China's lawmaking and regulation-making processes to a far greater degree than ever existed during China's long history. Therefore, to promote more effective communication between governments and citizens and ensure citizens' voices about tourism development in Lijiang be heard, the government should encourage a better public participation policy during the tourism planning process and tourism related decision making process. In addition to disclosing decisions and information on websites, other possible solutions for governments to encourage more citizens and rural residents to participate in the decision making process would be to form focus groups, send surveys, hold public meetings, and seek anonymous public comments, etc. The following table (see Table 6.6), cited from the website of the International Association for Public Participation, provides the Chinese government with more practical and possible techniques to create a better public participation in the future.

Table 6.6 Techniques Promoting Public Participation

Example techniques	▪ Fact sheets	▪ Public comment	▪ Workshops	▪ Citizen advisory committees	▪ Citizen juries
	▪ Web sites	▪ Focus groups	▪ Deliberative polling	▪ Consensus-building	▪ Ballots
	▪ Open houses	▪ Surveys		▪ Participatory decision-making	▪ Delegated decision
		▪ Public meetings			

Source: International Association for Public Participation, retrieved March 1, 2010 from http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf

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