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Abstract  
This study is to systematically analyze what types of environmental policies regulate tourism development in regional level. Yunnan province situated in Southwest China is selected as a research site in view of various regulations on environmental management, well-known tourism destination and cultural diversity. The finding of this study is that special regulations related to numbers of tourists, accommodation, transportation tools, environmental education campaigns for tourists and the cooperation of tourism associations are needed to enhance tourism environment management. Indigenous knowledge in ethnic areas of Yunnan is based on a sense of harmony with the natural environment resulted in sustainable use of natural resource. Rapid tourism developments in Yunnan imply that regulations on tourism activities may be the subject of a new body of rules to alleviate adverse environmental effects of tourism and related recreational activities.  

1.0 Introduction  
Tourism industry has been strongly linked to economic development in many countries. The World Tourism Organization (WTO 2004) forecasts that the number of tourist arrivals are expected to reach over 1.56 billion by the year 2020 and the global travel and tourism market is expected to reach $2,295 billion in 2004. (WTTC 2004). The top three receiving regions of tourist arrivals will be Europe (717 million), East Asia and the Pacific (397 million) and Americas (282 million). Especially, the annual growth rate of East Asia are anticipated to achieve over 5 percent which exceeds the world average of 4.1 percent.

Tourism, like other industries, also impact on natural environment. While a number of literatures addressed negative impacts of tourism on natural environment, tourism does positively influence environment in various ways (Mieczkowski, 1995). Tourism per se pressures on legislators, governments and private organization to concern more about the negative impact of human activities. Tourism is also acting as a rescuer of tourism resource to create revenue for environmental protection. On the other hand, tourists who show their interesting to the natural resource may enhance the pride of the local residents resulted in indirectly helping them to protect the natural resource and understand the value of nature conservation. On the contrary, tourism by no mean is a pure “green industry” or “smokeless industry” which has been reported to negatively impact on environment. The issues of negative effects of tourism on environment should be divided into two parts: the first part is analytical or disintegrative which reflects the impact on separate elements of environment element such as air, geology, soils, water, vegetation, and wildlife. The second part is systemic or integrative which denotes the impact on the holistic communities of biotic and abiotic components such as coastal, inland, mountain and polar ecosystems. (Mieczkowski 1995, p. 85).

In order to alleviate the negative impact of tourism on environment, many coping strategies are addressed by researchers. For examples, the issue of carrying capacity is associated with overuse and overload on natural environment associated with damaging ecosystems. Thus, establishing use limits in natural areas may minimize the negative impacts of tourism on the environment. Environmental education is one of the most important preventive and coping strategies that can be against negative human impacts on natural conservation. (Mieczkowski 1995). Society may acquire environmental awareness and change attitudes toward the environment through environmental education. Since mass tourism is criticized to adversely impact on natural and cultural resource by many environmentalists, alternative tourism is promoted to maintain sustainability and environmental conservation such as ecotourism which is a nature based form of alternative tourism. Regulations and laws on the environment have been used to conduct Environmental Impact Assessment (EIA). EIA is defined as “the systematic identification and evaluation of the potential impacts of proposed projects, plans, programs, or legislative actions relative to the physical-chemical, biological, cultural, and socioeconomic components of the total environment” (Canter 1996). The regulation
and laws may assist in environmental oversight such as planning, forecasting, control and evaluation, resolving environmentally-related problems, integrating environmental responsibilities into community, refining legal approaches to environmental problem, finding alternative environmental resolution methods, enhancing external relations management, and changing internal functions such as product design, marketing development and sales. (Jones, & Baldwin 1994). In order to more effectively implement the regulations and laws, global conventions and regional approaches on environmental management of tourism development are recommended because tourism is largely a worldwide phenomenon which tourists are traveling throughout the world and peculiarities of tourism in some regions may require unique managerial ways. (Perez-Salom 2001). For example, some international conventions are implemented in international community such as Antarctic Treaty System, Biodiversity Convention, and ALPS Convention Tourism Protocol Convention. National level of environmental policies on environment management are promulgated in both developed and developing counties such as National Environmental Policy Act (USA), Environment Protection Law (China), Environment Protection and Biodiversity Conservation Act (Australia). A few research conducted audit of national level of tourism policies. (Sofield, & Li 1998; Simpson 2003). Furthermore, dearths of research systematically analyze what types of environmental policies regulate tourism development in regional level. Therefore, this paper is to choose Yunnan of China as a case study to explore regulations on the environmental management of tourism development in regional level.

Yunnan province is situated at the southwest China adjacent to Vietnam, Laos and Burma and prestigiously viewed as one of the most diverse regions in China in terms of biological and cultural diversity. Yunnan possesses a rich diversity of eco-regions including major watershed systems (Yangzi, Mekong River) and mountain ranges (East Himalaya, Hengduan). There are 25 ethnic minority groups accounting for 40% of the population. Compared to other coastal regions in Eastern China, Yunnan is less developed province in China in view of geographical isolation. Tourism policy-makers have proposed that Yunnan’s natural and cultural richness should be used to develop tourism industry to stimulate regional economy. Over the last decade, Yunnan’s diverse natural richness ranged from alpine mountain ranges to tropical rainforests and cultural richness are continuously developed by central government and provincial government, resulting in attracting more than 1 million foreign tourists and approximately 38 million domestic visitors in the year of 2000 (Yunnan Statistical Bureau 2001). Currently, Yunnan province’s tourism sites are mainly focused on Xishuangbanna, Shilin, Dali, Lijiang, Lugu Lake and Shangri-la. (Figure 1).

On the other hand, China, as one of the fastest growth in tourist region (WTO 2004), has severe environmental problems characterized by air pollution, water pollution, acid rain, deforestation, soil erosion, desertification etc. (Sofield, & Li 1998; Palmer 2000). In this light, Environment Protection Law is enacted by National People’s Congress of China to impose provincial and local governments on using jurisdiction to establish environmental standards to environment protection. Paucity of research study investigated how provincial and local governments implement regulations on environmental management. On the other hand, Paradoxically, China is a well-known Communist nation controlled by a one party (Chinese Communist Party). However, National Law of Minority Autonomy 1984 passed by the 2nd meeting of 6th the National People’s Congress of Chinese Communist Party admits minority
autonomous right, respect minority internal affair and emphasize religious freedom etc. To our knowledge, contradictions between national political system and autonomous policy have not been documented by researchers. Yunnan province is a typical case which reflects the contradictions in terms of large number of ethnic groups and 37 autonomous prefectures and counties in the area.

Therefore, to understanding context of regulations on environmental management implemented provincial and local governments and contradictions between monoparty-controlled policy and minority autonomy, the purpose of the study is to explore what types of environmental policies regulate tourism development in Yunnan and to contrast the policies enacted by provincial and minority agencies on the basis of reviewing regulations akin to environment in Yunnan.

2.0 Methods

The initial data collection is retrieved from http://www.law-lib.com/law/ owned by Xihu Bookstore situated in Zhejiang province of Southern China and contains over 80,000 laws, regulations and acts which are enacted since 1949 in China. The website is authorized by the Bureau of Justice in Hangzhou of Capital of Zhejiang province and is viewed as one of most comprehensive databases related to laws in China. Regulations on environment and tourism were collected by imputing Yunnan (in Chinese) as a keyword resulted in 658 entries being found. Sixty-nine acts related to tourism and environment are identified by the authors by looking through one by one. Content analysis was conducted to compare provincial regulations with minority regulations. All existing regulations pertinent to tourism and environment in Yunnan are reviewed to explore tourism effect, environmental protection and environmental management.

The second stage of research is qualitative approach to collect data related to environment and tourism policy. Qualitative data collections for this study consist of four parts. First, provincial tourism experts and researchers from Kunming, the capital of Yunnan Province, are invited to participate in a focus group meeting to discuss impact of tourism on Yunnan Province and policy implementation. Nominal Group Technique (NGT) is designed for small group discussion which has been successfully used to reach consensus among community planners for the purpose of policy making (Ritchie 1985). Second, the Northwest region of Yunnan Province including, Dali, Lijiang and Shangri-la are chosen for the field study because they are well-known destinations for ethnic tourism in China. Community leaders and experts from these regions are recruited for this study to discuss impact of tourism on these regions and policy implementation. The interview protocol used in these meetings is the Nominal Group Technique (NGT). Third, group interviews are conducted with villagers from these regions to explore how tourism affects their daily life and socio-economic level. Since informants from these regions can not speak fluent Mandarin and have low literacy, Participant Rural Appraisal (PRA) model (Chambers 1994) is chosen for this study because it is an effective method to gather information from participants in less developed regions where there are challenges in verbal communication and time limitations. Participants are also encouraged to add or say anything else that they feel is relevant to the study. Fourth, journaling and photographs from field observations are used to help enhance the credibility and rigorousness of this qualitative study (Rossman & Rallis 19XX, p.69). All of interviews were recorded with the consent of the interviewees. NGT and PRA discussions are recorded in flipcharts. A Grounded Theory approach (Strauss & Corbin 1990 &1998) will be utilized to analyze qualitative data and to offer insight, enhance understanding, and provide a meaningful guide to action. According to this approach, a set of steps including open, axial and selective coding processes will be consecutively used to name, develop, and refine categories, subcategories and theory.

3.0 Results

3.1 Overview of the regulations

The National People’s Congress Committee on Natural Resources and Environment Protection is the central governmental committee of drafting new environmental law and revising existing law. Similarly, in provincial and regional levels like Yunnan, the regulations are enacted by provincial People’s Congress and regional People’s Congress. Therefore, I found that thirty-four regulations are enacted by the provincial agency and thirty-five regulations are enacted by minority agencies (see Table 1).

All of the regulations have similar fundamental principles on reflecting administrative duty, protection, funding, incentive program, warning and fine.
3.1.1 Administrative Duty

Every province, minority prefecture, township, village administration and affiliated institutions related to environment management are charged with the responsibility of implementing and supervising the regulations and monitoring environment from water, forest, mountains, natural reserve and endangered species to tourism management and culture etc.

3.1.2 Funding and Incentive program

Financial supports for environmental protection rely on limited national funding, provincial budget, part of tourism revenue and donations. The regulation requires incentives program for environmental managers and organizations who contribute to rescue of endangered species, prosecution of illegal activities, research on preservation, fire management and education campaign on natural resource.

3.1.3 Warning and penalties

Any organizations and people who violate regulations will be warned orally and fined administratively if they are not serious enough for criminal charges. However, any violations relating to environmental damage defined by the regulations will be reprimanded and charged for criminal punishment. For example, Yunnan Natural Preservation Act at Article 21 and 22 address “anyone who causes environmental damage will be fined up to 50000 yuan in accordance with the resulting damage of cases” and “anyone who violates the regulation on the administrative management in serious cases will be imprisoned”.

3.2 Comparison between provincial regulations and minority regulations

3.2.1 Ambiguity of funding source

Provincial government, in fact, is reluctant to allocate funding to minority areas resulted in provincial regulations ambiguously addressing funding source and amount. because natural reserves will slow down destruction of natural ecosystems which also can be thought of as a barrier to economic development. (Harkness 2000). Most recently, central government drafts a new policy that will invest 80 billion yuan in minority areas for acceleration of modernization: “in some regions of Inner-Mongolia, Qinghai, Ningxia and Xinjiang, levels of urbanization are higher than average level of China, and a great numbers of high buildings…… symbolize minorities are gradually becoming middle class (Xinhua Agency, 29 June 2004). On the contrary, since nature resource are seen by ethnic groups in Yunnan as their heritage of ancestors, ethnic groups think they must obtain enough financial support for protecting the nature resource. Thus, minority regulations address explicitly funding source, amount, for example, the historical and cultural Castle Conservation Act 1997 of Weishan Yi minority and Hui (Muslin) Autonomous county, at Article, requires “0.5% of annual county revenue should be used for protecting and developing the castle”.

3.2.2 Dispute on ownership

Provincial regulations emphasize all natural resource are national assets which should be managed by the country. The provincial government is keen to control natural resource because it has realized tourism is the most lucrative industry for the government. Likewise, nation-run agencies are encouraged by the government to manage environment and tourism industry. However, scarce conservative funds are used to support conservation. (Harkness 2000). On the other hand, Minority regulations clearly indicate that ownerships of natural resource are the properties of three different agencies: Private, community-owned, national. The minorities insist that all natural resource not belong to country because they live in the land from generation to generation. The government should give them rights for environmental management of tourism on natural resource.

Table 1.—Overview of regulations

<table>
<thead>
<tr>
<th>Acts</th>
<th>Province</th>
<th>Minorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest Protection Acts</td>
<td>3/20</td>
<td>17/20</td>
</tr>
<tr>
<td>Natural Preservation Acts</td>
<td>7/12</td>
<td>5/12</td>
</tr>
<tr>
<td>Tourism Management Acts</td>
<td>8/8</td>
<td>0/8</td>
</tr>
<tr>
<td>Cultural Historical Heritage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection Acts</td>
<td>2/5</td>
<td>3/5</td>
</tr>
<tr>
<td>Water Resource Protection Acts</td>
<td>6/10</td>
<td>4/10</td>
</tr>
<tr>
<td>Mineral Protection Acts</td>
<td>3/5</td>
<td>2/5</td>
</tr>
<tr>
<td>City Plan Management Acts</td>
<td>3/5</td>
<td>2/5</td>
</tr>
<tr>
<td>Environment Policy Acts</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Endangered Species Protection Acts</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>34/69</td>
<td>35/69</td>
</tr>
</tbody>
</table>
3.2.3 Obligation of people who are related to the issues

Provincial regulations unclearly address everyone should abide by the regulations. For example, Yunnan Tourism Industry Management Act at article 3 obliges “anyone who attends tourist activities, owns tourism businesses in the regions should abide by the regulations.” However, it implies that army has privilege to exempt from obeying the regulations. On the contrary, minorities’ regulations explicitly require everyone including army should abide by the regulations.

3.3 Implications of Regulations

3.3.1 Scientific and technical co-operation

Yunnan Tourism Industry Management Act at Article 7 requires “Scientific management” and Yunnan Ninglang Yi Zu Autonomic County Forest Industry Management Act at Article imposes local people “rely on Science and technology developing forest industry”. However, poor regions are unlikely to attract technically-trained people and enthusiastic people and are lack of funds for environmental protection. According to the field work, even people who live in richer areas like Lijiang, are unwilling to let their children return to Lijiang after graduation from universities and wish their children to look for jobs in bigger cities like Kunming, Beijing or Shanghai. In order to solve the problems, Yunnan Government appoints each county to have a vice-Commissioner (Ke Ji Fu Xian Zhang) from research institutions in Kunming who is in-charge-of Science and Technology. Furthermore, in order to alleviate burden of a shortage of funds, foreign NGOs such as a Singaporean environment association, brought running water system and trash-disposed system to Shangri-la area to deal with increasing water usage and trash due to rapid growth of tourists in Shangri-la area.

3.3.2 Legal Enhancement

China traditionally is viewed as a conservative country which the ruling party overpowers law. However, in the post-Mao era, Chinese government is increasingly reforming and refining the legal system on environment protection through the regulations. The purpose of the commitment is to demonstrate that everybody should respect Constitution and law, and everybody is protected by Constitution and law. However, while China as establish it basic legal system of environment regulation, it should be acknowledged that the legal system is controlled by administrative power in some remote areas where are hardly supervised by central and provincial governments.

3.3.3 Pseudo-minority orientation

China’s ethnic autonomy system implemented by Chinese Communist Party (CCP) is a constitutional commitment of freedom for ethnic groups. Yunnan is a multiethnic province where are adjacent to many Southeast Asian countries. Any policies should be more tolerant of traditional ethnic culture to avoid any separatist tendencies, keep the region politically stable and minimize conflict between minorities and Han people. In this light, while ethnic autonomy is not actively promoted by the local government, the minorities still have rights to draft and implement their legislations which may be monitored by the government.

3.3.4 Emphasis on External investment

Compared to the average income of Shanghai where is the highest income region in China, the average income of Yunnan is 46 % lower than that of Shanghai (National Bureau of Statistics of China 2004) and the average income of rural population of Yunnan is 33% lower than that of China. It is unlikely that provincial and regional has enough revenue to deal with environmental industry. Thus, the governments have already realized the necessity of external investment and funding to help Yunnan to develop environmental regulation and tourism industry. For example, NingLang Yi people Autonomous County Lugu Lake Management Act at Article 4, requires that “foreign and domestic investment are encouraged” and “whoever invests, whoever gets benefits”. Article 18 in Yunnan Tourist Sites Management Act requires that “encourage co-operated investment on resource and protect investors’ rights”.

3.4 Barriers of Implementing Regulations

Though the appropriate regulations serve as obligations enhancing sustainable tourism development, it should be acknowledged that the implementations of regulations are jeopardized by interference of actual situations in the field. During a mouth of field work in Yunnan in 2002, I found that diversity and transmigration, cultural constraints, and conflict between government and local community, infrastructure level are barriers of implementation of regulations. Many environmental concerns and disputes are not translated into effective legal implementation rather than tolerated by local people.
3.4.1 Diversity and transmigration
Due to 25 ethnic minority groups in Yunnan province, ethnic tourism is promoted in the area as a primary strategy of tourism development. Large cities and towns close to main roads are selected to attract both international and domestic tourists. As a result, growth of ethnic tourism created job opportunities for locals, and transmigration simultaneously became active in Yunnan resulted in both non-local people and local people who live in adjacent areas flowing into tourist sites to seek jobs. In this context, it is necessary to acknowledge that diversity and transmigration positively impact on tourism development in Yunnan, however, they also play negative roles in impacting on environment protection and implementation of regulations. Before tourism was developed in Yunnan, transmigrations between ethnic groups in Yunnan are not frequently because ethnic groups enjoyed living in a peace, traditional and contented environment. However, transmigrations became vigorous since tourism was developed. In Li Jiang, local residents of the Naxi ethnic minority have been displaced from their traditional living environment due to the migration of tourism entrepreneurs from other provinces and the rapid growth of tourist numbers (Morais 2003). The field work found that the most concerned issue raised by the local Naxi people is “environmental problem” in term of local environmental regulations violated by non-local people. In Lugu Lake, the quality of the Lake water is aggregated by overcrowding and misusages of entrepreneurs. Paradoxically, since non-local people are encouraged to invest by government policies of “the high priority of economic development”, local administration and local people have to be compromised by the policies to ignore environmental protection.

3.4.2 Cultural constraints
Culture as a constraint factor, may impact aspects of human behaviors include taboos, time perspectives, attitudes toward change, beliefs toward the scientific method, family and group responsibilities, religions, governmental regulation and decision-making styles. (Brightman 1981; Schutte & Ciarlante 1998). Therefore, cultural constraints are either prescriptive (people should do certain things) or proscriptive (people should not do certain things). (Chick & Dong 2003). The field work in Yunnan found that the most powerful constraint to the implementation of regulations is culture. Cultural taboos conspicuously impact on Children behaviors. In rural areas of China, open-seat pants or split pants (Kai Dang Ku) are culturally worn by Children who are under six years old in order to help children to conveniently empty their bladders and have their bowel movements immediately. This cultural behavior is tolerated and accepted by Chinese culture. Furthermore, religions have been documented by many researchers to stimulate environmental awareness among people who have religious beliefs. For example, violation of environment is views as sin by the new Roman Catholic catechism. Hindu religion respect nature as a “living conscious being and the quality of the life cycles”. (Mieczkowski 1995). In Lijing, Dongba, as Naxi religion, play a role in educating Naxi people to cultivate ecological ethics which should respect nature to keep harmony between humans and natural environment. Said differently, religion is more likely to play a role in protecting environment than regulations do. On the other hand, cultural decision is dominant in decision-making styles which are not easily changed by external forces. Han people are educated by ideals of Chineseness as “China is a big country with abundant and inexhaustible nature resources” whereas are not educate how to protect environment. Another famous traditional saying, “If you have not been to the Great Wall, you are not a true man”, only educates Chinese people “just visit” rather than “protection of the Great Wall”. Ironically, According to annual Report on the State of the Environment in China in 2001, the rate of forest coverage of China is 16.55% which is 10.45% lower than the average level in the world. While members who participated in the compilation of the report are many governmental agencies including State Environmental Protection Administration, Ministry of Land Resources, Ministry of Construction, Ministry of Water Resources, Ministry of Health, Ministry of Agriculture, State Statistics Bureau, State Forestry Administration, State Oceanic Administration, China Meteorological Administration, and China Seismological Administration, Ministry of Education are excluded by State Environmental Protection Administration. Therefore, the government has not realized environmental education could make the public aware of the importance of nature preservation.

3.4.3 Infrastructure
While many regulations related to prevent water pollution and deal with littering are enacted by provincial and minority agencies, our field work found that violation of regulations are rampant and out of control
due to deficiency of infrastructure. In Dali, because of shortage of running water, women use water from ditches to take bath for their babies and wash vegetables. In Lugu Lake, “white waste” (plastic bags) abandoned by tourists and other trashes which are not easy to decay and decompose became unsolvable problems because disposal system has not been built up in the area. In Shangri-la, Tibetan people are not capable of disposing of human waste because public and private toilets are not established in most of villages. Thus, although local people have already realized the regulations on environment are effective ways to protect the natural resource, it is unlikely to implement the regulations for local people without establishment of running water and disposal system.

3.4.4 Conflict between government and local community

Since Yunnan has already had Forests Protection Acts, the provincial and regional governments believe natural resources in Yunnan are able to be well-managed and supervised by the regulations. However, I found that local communities do not favor the regulations enacted by the government because they think the regulations mainly serve for the government and does not have much powers to manage environment and benefit for local communities. For example, in Shangri-la, the first community-based non-governmental organizations (NGOs), Shangri-La Folk Environment Protection Association, was found by three local native Tibetans in 2002. The Shangba-La Farm Community-based Nature Reserve Villagers Act is enacted by the association to grant local community to have autonomous rights to manage the land. Unfortunately, Yunnan Forest Administration and Yunnan Environment Protection Bureau rejected the association application for registration as a social organization by the reason of “no approval ground”. Not surprisingly, the authorities intend to encourage” governmentally-organized voluntary associations” that are controlled by the government. (Palmer 2000)

4.0 Conclusion

While 65 regulations address issues regarding heritage sites’ authenticity, environmental pollution, water pollution, deforestation, environmental impact appraisal and special funds for tourism development etc., the negative impacts of tourism activities are less concentrated than business activities. Special regulations related to numbers of tourists, accommodation, transportation tools, environmental education campaigns for tourists and the cooperation of tourism associations are needed to enhance tourism environment management.

Yunnan’s main tourist sites, Dali, Lijiang, Lugu Lake and Shangri-la, have different economic levels, however, it is important to recognize that rich areas efforts are not more likely to undertake environmental protection than poor areas where are lack of resources do. (Jahiel 2000). Indigenous knowledge in ethnic areas of Yunnan is based on a sense of harmony with the natural environment resulted in sustainable use of natural resource. Rapid tourism developments in Yunnan imply that regulations on tourism activities may be the subject of a new body of rules to alleviate adverse environmental effects of tourism and related recreational activities. Degradation of the natural heritages is not only China’s problem, but also a global issue in view of internationalized tourism. While the global cooperation must integrate a regional approach, the ability to achieve effective environmental regulation in tourism is difficult because its main product of recreation is varied, and experienced differently by each customer. It also depends on consumer perceptions of landscape and culture, which may not support domestic development objectives (Forsyth 1997).

5.0 References


