

Culture and Sustainable Livelihoods

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ABSTRACT The sustainable livelihoods (SL) approach offers a practical means of addressing some critical aspects of sustainable development. In this research, the SL framework is applied to an analysis of tourism development among the Shanmei Cou in Taiwan. It is shown that the SL framework has utility in guiding both research and practical initiatives, and that it may have particular relevance to marginalized communities. However, its usefulness can be further enhanced through explicit incorporation of culture, which has been underemphasized in most earlier formulations. A revised framework is proposed and some suggestions are offered for further research.

INTRODUCTION

Although sustainable development has been incorporated into the policies of many international organizations and the legislation of jurisdictions throughout the world, implementation has not been easy (WCED 1987; Redclift 2000; Gibson et al. 2005). It is not always clear whether the concept refers to a philosophy, a process, a program or a product, or all of these (Gibson et al. 2005). The research reported here examined the implications of the introduction of a new activity, tourism, for sustainable livelihoods in an indigenous community in Taiwan. The purpose of this research was to trace changes in livelihood strategies over time, and to identify the events and influences that have been significant for producing new values, orientations and livelihoods in indigenous villages. The research was undertaken in a Cou community in the Alishan area of Taiwan. The site was chosen because aspects of Cou resources and culture have been used to generate income as tourism attractions for almost 20 years and because Cou culture has many implications for tourism development.

The case also demonstrates a pathway to cultural consideration within the sustainable development framework for members of marginalized communities. This case places

particular emphasis on intra-generational equity for indigenous peoples in Taiwan, who are beginning to move from being the providers of cultural experiences for tourists, to having an ownership and management role in tourism (Robinson 2000). As Robinson (2000) indicated, "In the tourism context, consent acts at a number of interdependent levels. It relates to ownership of the tourism object or objects, in legal and moral terms. It refers to the right to determine one's past, present and future. It also relates to a willingness to transfer this ownership to others based upon internal consensus, which may not mean unanimity, but is representative of differing values." (p.307)

The study made use of an adapted sustainable livelihoods (SL) framework to identify the types of assets people use and how existing livelihoods can be strengthened through the introduction of new economic activities, such as tourism (UNDP and Wamali 1999). In this way, it was not only possible to examine evolving livelihood strategies in a Cou community, but also to critique the SL framework and to offer suggestions for enhancement.

The Sustainable Livelihoods Framework

SL has been proposed as a practical concept that is relatively easy to comprehend when

compared with sustainable development and that can be used to guide sustainability research and practice (Chambers 1986). SL thinking is based on a people-centred paradigm which emphasizes inherent capacities and local knowledge systems. It builds on the belief that sustainable development can only be achieved when the needs and interests of poor and marginalized communities are addressed (Chambers and Conway 1992). SL processes typically include analysis of community activities, assets, capabilities, adaptive strategies and technologies, all of which contribute to livelihood systems (IISD 1999).

Figure 1 illustrates the SL framework which guided our research at the outset. The framework incorporates the main factors affecting livelihoods and typical relationships between these factors (DFID 1999). In figure 1, the *vulnerability context* of marginalized communities frames the external environment. Factors affecting *context* have a direct impact on assets and strategies. Assets, sources of *livelihood capital* are livelihood building blocks – “the ability to pursue different livelihood strategies is dependent on the basic material and social, tangible and intangible assets that people have

in their possession” (Scoones 1998: 7). *Livelihood strategies* include the activities that people undertake and the choices that they make in order to achieve livelihood goals (DFID 1999). This framework emphasizes the role of *institutions and organizations* in combining livelihood resources to pursue various strategies and to realize different livelihood outcomes. Institutions can be understood as “regularized patterns of behaviour between individuals and groups in society” (Mearns 1995: 103). Structures and processes then, mediate the complex and highly differentiated process of achieving SL (Scoones 1998). Identification of links between inputs, outputs and flows of livelihood resources, actors, and trends in the societal context help to identify how economic activities, in what form, and through what institutional processes and organizational structures, may strengthen or weaken local *livelihood assets*, contribute to or undermine *livelihood outcomes* and alter the *vulnerability context*.

In addition, communities are not static or undifferentiated as they are made up of active individuals and groups (i.e. social actors). The environment also needs to be disaggregated into

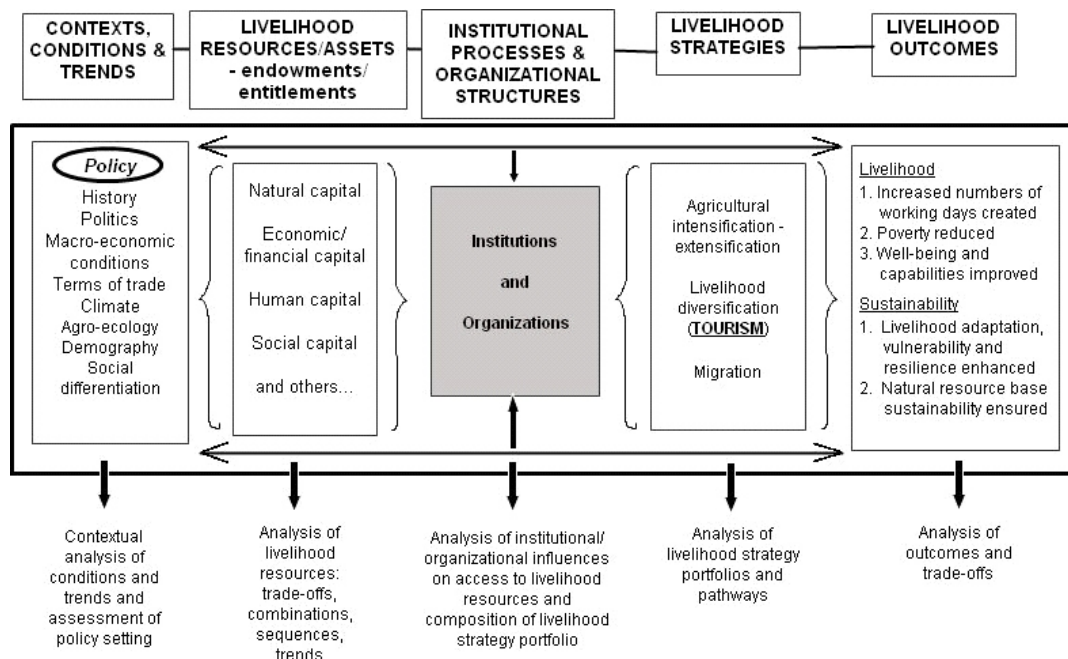


Fig. 1. Sustainable rural livelihoods: A framework for analysis
(From Scoones 1998, p. 4)

its parts and viewed dynamically. These dynamic and differentiated views have important implications for analyzing the relationships between people and environment, raising a number of questions (Leach et al. 1999: 232). For instance, which social actors see what components of varied and dynamic ecologies as resources at different times? How do different social actors gain access to and control over such resources? Two main concepts help to address such questions: endowments and entitlements. Endowments refer to *the rights and resources that social actors have*, such as land, labour and skills (Leach et al. 1999: 232). Entitlements refer to *legitimate effective command over alternative commodity bundles* (Gasper 1993). They are different from an asset which is defined as a “stock of financial, human, natural or social resources that can be acquired, developed, improved and transferred across generations. It generates flows or consumption, as well as additional stock” (Ford 2004, cited in Moser 2006: 5).

SL thinking has proven to be a useful tool for guiding analytical and practical initiatives to enhance the relationships between environment and development in numerous settings (Carney 1999). Several authors, however, have identified important factors that were not well captured in the original framework. Of note here is the critique that culture and its dynamics and cross-cutting power relations, as influenced by gender, age, ethnicity, castes and class are usually buried within institutional processes and organizational structures in SL frameworks and receive little or no visibility (Hebinck and Bourdillon 2001; Adato and Meinzen-Dick 2002; Hamilton-Peach and Townsley 2004).

Some adjustments relevant to our study have been proposed. Lassa (2004) critiqued the conventional SL assets approach and proposed explicitly including political assets. Conway et al. (2002) suggested a rights-based approach to livelihood development, arguing that identification of groups lacking effective rights and of groups that may be denying rights to others, can assist in revealing root causes for the generation and perpetuation of poverty and vulnerability. As such, a rights approach provides one possible way of examining the operation of institutions and political processes that influence the livelihoods of marginalized groups. Furthermore, by identifying constraints on people's livelihoods, it can suggest which kinds of rights are most

important for a particular group at a particular time or the sequence in which rights should be approached for a given group (p.3). In the SL context, establishing rights for those who are politically and culturally marginalized often means extending entitlements to resources or services (Njogu 2004).

Even with these critiques and others, Scoones' work remains a foundation of SL thinking (Bebbington 1999; Turton 2000; Chimhowu and Hulme 2006; Glavovic and Boonzaier 2007; Shen, Hughey, and Simmons 2008). Scoones' (1998) sustainable livelihood framework (Fig. 1) continues to be used to guide analyses.

One premise of our research was that culture is significant in understanding people's livelihoods and, further, that culture has an important influence on key components of the SL framework including vulnerability context, livelihood resources, livelihood strategies and livelihood outcomes (Fig. 1). Thus, in our study, culture is part of the context (external forces), since aboriginal people are usually a minority operating within a larger and more powerful cultural context. Culture also includes internal forces, including beliefs (for example about the notion of development), tradition, identity, language, sacred sites, ceremonies and festivals. For example, in a clan system such as that found in many aboriginal communities, livelihood strategies are infused with practices of reciprocity, redistribution and exchange, as well as attachment to land that differ from the majority population. Such cultural attributes are centrally important to people's lives, choices and well-being.

Early users of SL frameworks tended to concentrate on exploring quantitative relationships between measurable variables (Scoones 1998). As Scoones (1998) also indicated, however, unless social structure is understood, and the cultural context and the processes through which sustainable livelihoods are achieved are appreciated, understanding of relationships between variables and outcomes will be limited. The linkages between different elements in an SL framework, such as the connections between institutions and organizations with vulnerability; among strategies, assets, institutions and organizations; and between assets and outcomes, cannot be fully described except, perhaps, in a qualitative and largely cultural context (Hamilton-Peach and Townsley 2004). One outcome of our study has been an adapted SL Framework with

more explicit recognition of the importance of culture (Fig. 3).

Research Approach

Field research was undertaken from July 2004 to January 2005 and from November to December 2005 for a combined duration of eight months. Data were collected through qualitative methods including direct and participant observation, in-depth interviews with key village informants, village residents, government officials, academics and NGO staff and document analysis. Interviews were conducted on a purposive sampling basis.

Specific individuals were identified based on the recommendation of key contact persons in the community and upon knowledge gained from printed materials accessed before and during the field work. A total of 131 interviews was conducted. Secondary data on indigenous people in Taiwan, tourism in Taiwan and on the research site were accessed through government documents and statistics, published literature, archival materials, newspapers, magazines and the internet. More than eighty books and reports were reviewed.

Guided by Scoone's Sustainable Livelihood Framework, the authors used interviews and

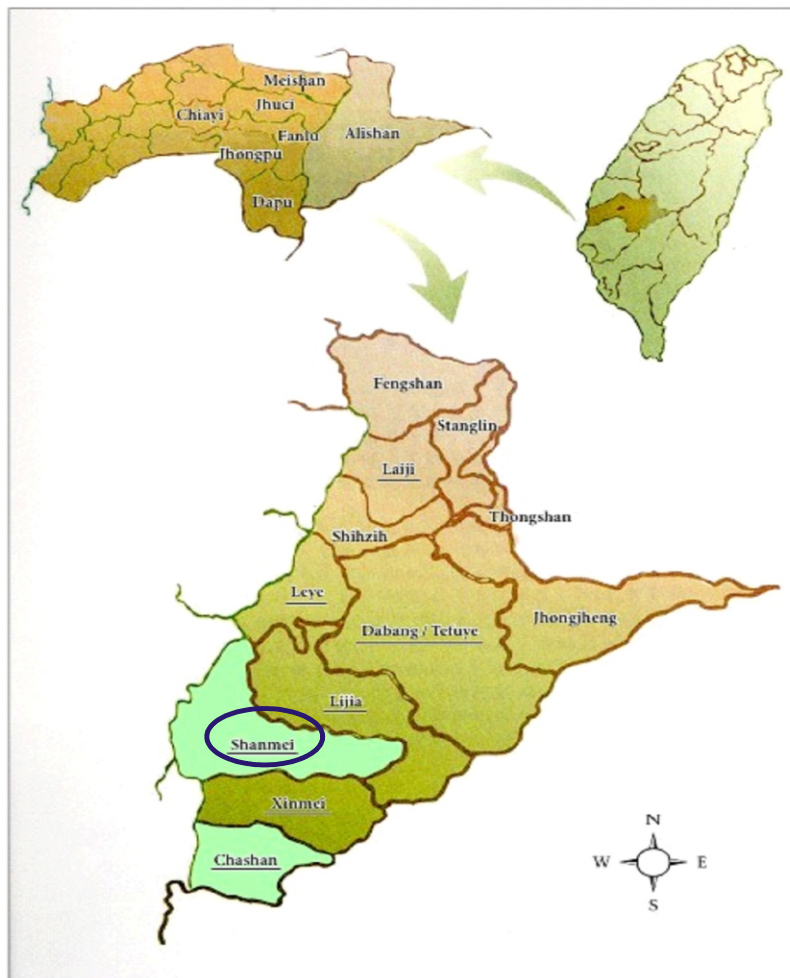


Fig. 2. Map of Alishan Township, Alishan Cou Distribution and Shanmei Village

Note: Locations with underlining are Cou villages. From Shang-Hua Engineering Consultants Co. (2003, December)

observations to examine the following aspects of local livelihoods for the Cou communities in our study: 1) *A descriptive overview* of the livelihoods of different groups. What activities do they pursue? What assets do they have? How do external forces shape their options, and can they shape external forces? 2) *Dynamics and processes of change*. How and why are livelihoods changing? What is due to shocks or externally driven trends? What changes are short-term 'coping' strategies, and what are long-term 'adaptive' strategies (adapting to new opportunities or constraints). 3) *Normative*. What improvements do people most want? What outcomes, assets or activities? What criteria do they use when judging options?

Secondly, the consequences of tourism development for livelihoods were explored through examination of how and why tourism has been introduced and if and how tourism has been incorporated into local livelihoods. During the analysis, various consequences were categorized using the elements of the livelihood framework, as follows: 1) *Direct contribution to outcomes*. How does the enterprise contribute directly to needs and improved livelihood outcomes e.g., cash, empowerment, sustainability? 2) *Consequences for assets*: Does the enterprise sustainably use natural, physical and financial assets, or change their quality or productivity? Does the enterprise use social networks of households or of the broader community? Does it strengthen or undermine community co-operation and institutions, particularly institutions for common property resource management? Does it change the community's relations with the outside world, in terms of influence, co-operation or conflict? Are cash earnings invested in human capital (education, health) or other reserves (financial, physical assets)?

Preliminary analysis of responses to the above questions suggested that the process of tourism development as a livelihood strategy has been developed and operated under Shanmei Cou institutions via statutory community organizations. These institutions are dynamic, continually being shaped and reshaped over time. Further analysis focused on how local institutions mediate access to livelihood resources and in turn affect the composition of portfolios of livelihood strategies; how the institutions influence the links between the components; and how the institutions influence different people's abilities

to pursue combinations of different livelihood strategies, leading to what results for sustainable livelihood outcomes.

The case study examined tourism development along the Danayigu River, among the Cou people. Below we present the case study context and a report on results of the case study. The contextual discussion includes a brief history of the Cou people, a discussion of tourism in the broader Alishan area where the Danayigu River is located (Fig. 2), and a review of the broader Taiwan context for the study. These constitute the internal and external contexts in which the Cou operate. Both external factors (e.g., history, government policy and macro-economic conditions), as indicated in the framework, and traditional Cou social structure, its supporting values and its operational characteristics continue to influence Cou people.

THE CASE STUDY CONTEXT

A Brief History of the Cou People

The word "Cou" means "people". The population of Alishan Cou is just over 4000. Cou society is a patri-clan system (S.-S. Wang 1999). The tribe and the clans own land communally (M.-H. Wang 1990; S.-S. Wang 1999). A sub-clan is the basic social and economic unit. The actual right of land-ownership is often executed by the sub-clan "union of households", which is also a river-owning unit: every river is portioned out for fishing among such units in a village. Individuals only have use rights (M.-H. Wang 2001). In addition to production for oneself and one's family, sharing, reciprocal exchange and barter are crucial for obtaining daily necessities. To address peak labor demands in cultivation and harvesting, a labor-exchange group consisting of several sub-clans engages in mutual assistance. Through this system, tribal and clan leaders are supported economically and their leadership is stabilized (S.-S. Wang 1999). Wealth and power have been created and their accumulation has maintained the operation of the Cou social system through sub-clan organization of production and production relationships, including slash and burn agriculture, fishing and hunting and, now, cultivation of rice and cash crops (S.-S. Wang 1999) and, increasingly, tourism.

Before the period of Japanese colonial rule (1895-1945), Cou society was self-sustaining. Hunting was originally the main economic activity,

while shifting cultivation was added later (M.-H. Wang 1990). The social and economic attributes of the Cou tribe changed significantly during the Japanese colonial period. The Japanese government first introduced the formation and cultivation of irrigated rice fields, the planting of farm and forestry crops (e.g. camellia, giant bamboo and fir), and the development of a monetary economy and trade. The monetary economy did not immediately replace the Cou barter system but the new production techniques and crop types modified Cou land utilization. Accordingly, the Cou lifestyle gradually moved away from a traditional form based on subsistence through shifting cultivation towards a market economy (M.-H. Wang 1990).

Starting in 1945, the Nationalist Chinese government's policies were to "make the mountain like the plains" (*shandi pindihua*) and to "make the mountain modernized" (*shandi shianday-hua*). Private land ownership, sedentary farming and forestry were introduced, as were policies promoting trade and "civilization". As a result, the Cou's need for cash income increased, causing them to shift gradually from a subsistence to a market economy (M.-H. Wang 1990; C.-R. Li 2000). In addition, the government's policies on lands reserved for indigenous peoples compressed the space available for Cou traditional economic activities. Cou hunting territory and agricultural land became stated-own land. As a result, the Cou lost rights of use, management and access to resources (M.-H. Wang 1990). Afforestation and sedentary agriculture were promoted by the government and, as a result, hunting and fishing lost their economic significance and gradually become recreational activities (M.-H. Wang 1990). Road improvements also facilitated increased communication with the outside world. Greater transportation convenience changed the marginal location of Alishan Township and facilitated commercial agricultural production, market access (Cheng 1995) and tourism. The above government policies can be considered as formal institutional processes mediating access to and control over the traditional territory of indigenous peoples, and affecting their rights of equal access to livelihood resources.

Tourism Development in the Alishan Area

Today, the Taiwan government has a National Tourism Policy. The "Doubling Tourist Arrivals

Plan" (DTAP) is one of the key sub-plans of the "Challenge 2008 National Development Plan" for the Executive Yuan¹. In order to achieve the DTAP goal, a 2004 Visit Taiwan Year Working Plan was formed consisting of the following five-points: domestic travel promotion, festivals and competitions, tour product development, international promotion and advertising, and a travel information network (Tourism Bureau 2005). Alishan is a renowned domestic international and domestic tourist destination with a strong role to play in achieving these goals.

Since the Japanese occupation era, Alishan's sunrises, mountain landscapes, clouds and wood railway have been famous overseas, particularly in Japan. Alishan's 'cloud sea' is one of Taiwan's eight noted views and one of the most famous sights in Taiwan. Fifty scenic sites of special geomorphic or geological characteristics in Alishan are delimited in four recreational systems according to their locations (Fig. 3). The first one is the North-South Corridor System (green circle) which is centered on Highway 169 (from Shihjhuo north) and county road Chia155 including Fongshan, Laiji and Fencihu. The second one is the Northwestern Corridor System (blue circle) which is centered on the 162A Highway and county road Chia 122, including Taiping, Rueifong, and Rueili, along with their famous Swallow Cliffs and Bat Caves. Third is the Tai 18 Highway System (brown circle) which is based on the Tai 18 and 159A Highways, including Chukou, Bantianshih, Siding, Shihjhuo, and the Alishan Forest Recreation Area. Finally, the fourth one is the Cou Tribe Cultural System (orange circle) which is centered along the southern Section of 169 County Highway and the 129 and 155 County Highways, including the areas of Sinmei, Shanmei (the research site), Leye, Tefuye, Dabang, Lijia, and Laiji (Alishan National Scenic Area Administration 2004). The number of tourist visits to the Cou Tribe Cultural Area comprised 19.4 % of the total visits to the four recreational areas in 2006. Cou villages are relatively minor tourist destinations in the area due to their relatively low accessibility and capacity (Alishan National Scenic Area 2006).

According to the Tourism New Strategy of Taiwan in the 21st Century, the Ministry of Transportation and Communications (MOTC)² sees promotion of the environment for tourism as their main strategy. The Tourism Development

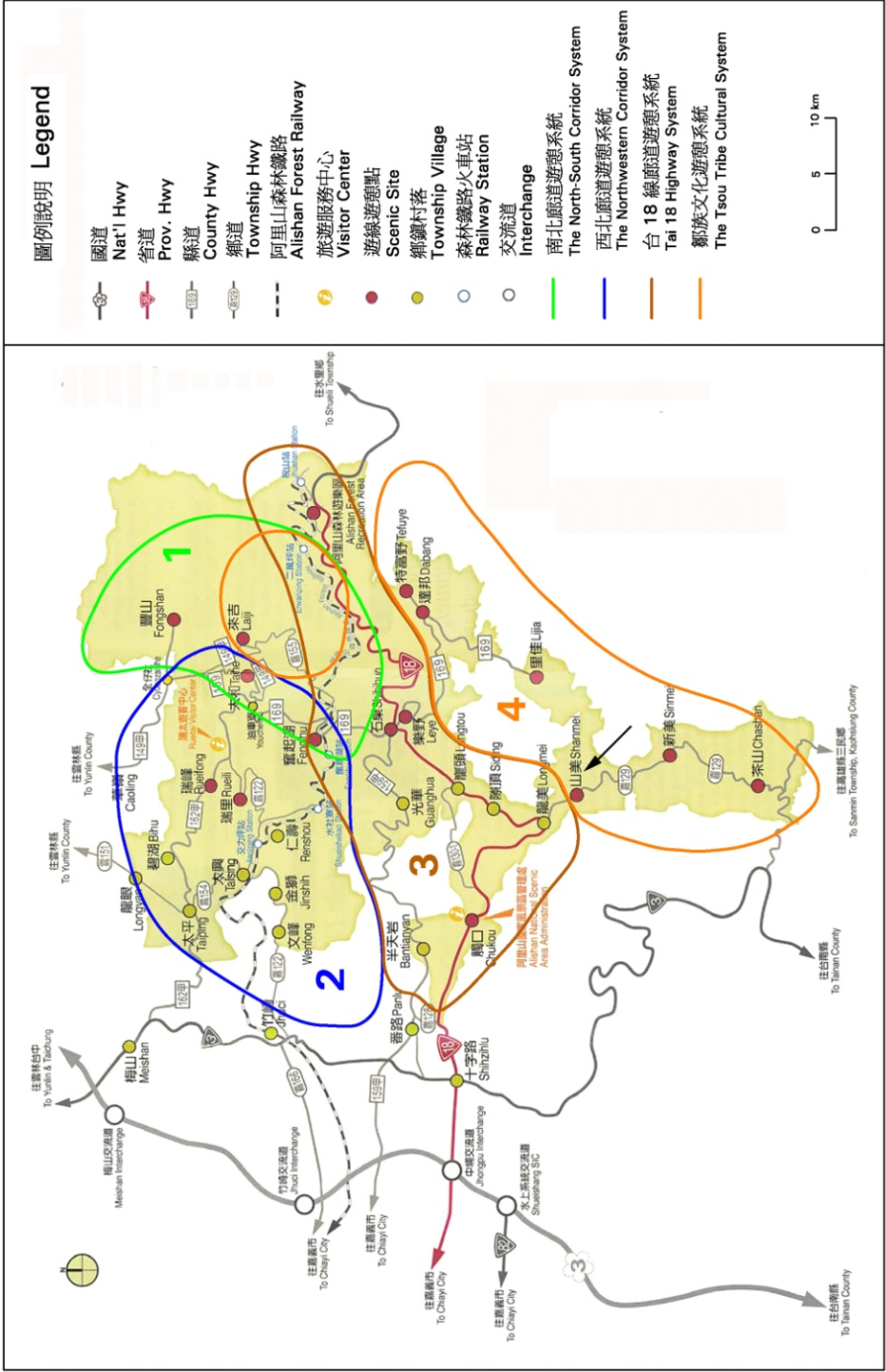


Fig. 3. Four Recreational Systems of the Alishan National Scenic Area
(from Alishan National Scenic Area Administration 2004, pp. 58-59)

Team asked the government of Jiayi County³ and the Tourism Bureau⁴ to manage an investigation of the scenic places in the Alishan area and to plan a range of management strategies. One of the five resulting plans is the promotion of major festivals such as Cou tribal cultural ceremonies, a railway culture season and a cherry blossom season (March-April). Since the establishment of the Alishan National Scenic Area Administration, traditional Cou rituals, such as *Mayasvi* (triumph/war ritual), *Miyapo* (seeding ritual) and *Homeyaya* (millet harvest ritual) have been promoted and advertised to tourists. Festivals related to Cou clan culture and other local features have been subsidized or expanded, such as the Fona (vitality bean) festival (Cou group wedding ceremony), the Gu fish festival in Shanmei, and the Pavilion festival in Chashan. Tourism promotion activities and events are held throughout the year by local government organizations in Jiayi. Subsidies from both central and local governments are distributed to individuals who participate in the activities and to the Cou tribal villages that hold the events. For example, the Alishan National Scenic Area Administration has paid local Cou to perform in the Fona Festival. Small-scale construction projects, such as trails, pavilions and observation platforms, have been built by Cou men who make income through these occasional job opportunities. These events and activities have increased the chances for local Cou to be directly or indirectly involved in tourism. These examples also illustrate interactions between external actors and initiatives and the intricacies of Cou culture.

The Taiwan Context

Assimilation policies of the two colonial regimes promoted modernization of the mountain region by economic means and greatly influenced Cou land use, culture and economy. This occurred in an attempt to include the mountain region and its people in the broader economy of Taiwan, altering Cou livelihoods. After the 1980s, in response to protests by aboriginal movements, the National government's policies for aboriginal peoples shifted from the protection of citizens' rights and assimilation into the broader society toward pluralism involving respect for ethnic groups' rights to preserve their special attributes. At this time, too, the economy appeared to stabilize, martial law⁵ was rescinded and the

broader society pushed for liberalization of political power. The policy emphasis shifted from the development of an industrial economy towards social welfare, cultural continuity, education, and environmental conservation (S.-S. Wang 2003). Consequently, a series of policies relevant to cultural industries was proposed. Moreover, because of the devolution of authority and changes in the allocation of civic expenses, many marginalized areas attempted to use tourism and culture to drive local development (S.-S. Wang 2003). The trend has provided aboriginal people with a new opportunity (i.e. tourism) in which they can make use of their culture as an asset (as a touristic attraction) to possibly reverse their inferior position.

The vulnerability of indigenous communities has continued as the Taiwanese economy is now shifting towards services and high technology. Traditional agricultural, forestry and fishing industries have been in decline. Small-scale agriculture has suffered severely in both domestic and overseas markets in the face of competition from major agricultural countries with superior capital resources and technology (Lee 2004). Furthermore, a rise in agricultural imports has occurred as a result of Taiwan joining the World Trade Organization (WTO), forcing many farmers to look for additional income in other ways. The crops produced by many indigenous communities in the mountains are unable to compete with those produced in the lowland due to the high costs of labor and transportation, a lack of markets and sales channels, a lack of marketing and processing skills, and the absence of a brand name. As a result, promotion of recreation and tourism-related industries, (such as agrotourism), has been deemed to be necessary (interviews 2004-2005).

The Case Study: Development of Tourism as a Livelihood Activity along the Danayigu River

The Shanmei community reflects the adaptation of Cou society to internal and external pressures and is used here as a case study (Tai 2007). The Danayigu River flows through Shanmei, providing a focus for tourism. As an application of the SL framework, this section of the paper provides a detailed description of the development of tourism, illustrating how Cou traditional knowledge and customary institutions as human capital⁶ (Berkes et al. 2000), were necessary for the initiative to succeed. Also, the

significance of organizations and institutions that were put in place for tourism management is explained. The data illustrate the multiple purposes of tourism development and the requirements that were necessary for the initiative to succeed. They also demonstrate how and in what forms tourism has been incorporated into local livelihood strategies.

Shanmei is a poor, marginalized indigenous community in a post-colonial situation. It is located in the mountainous interior of Taiwan and consists of seven neighborhood units and one ecological park. In 2005, it had 189 households and the population was 668. Almost all (99 percent) of the population is Cou (Chiou 2003; personal survey 2005). In the context of declining agricultural and forestry industries and growing interest in encouraging tourism development in the larger society, a new generation of farmers started to think about "How to carry on and make Shanmei's tomorrow better?" A former village head (Cou) proposed a "self-reliance" plan (M.-H. Wang 2001). The most important idea was to get lowlanders to come to the mountains to purchase agricultural products rather transporting them to the lowland and being exploited by middlemen. Hence, thought and action were channeled in this direction (M.-H. Wang 2001). The abundant landscape resources as natural capital in Shanmei were considered to be a potential major attraction for tourists. The Shanmei Tourism Promotion Committee comprised of the village head, seven neighborhood unit heads, and a missionary was established in 1987. One member put forward the idea of tourism development by way of restoration of Gu fish in the Danayigu River and delimitation of the surrounding area as a park (C.-R. Li 2000; M.-H. Wang 2001). However, this was not an easy initiative to undertake because of the long history of the Danayigu River and the special meaning that it held for the Shanmei Cou.

Historical Development Pre-1945

Danayigu was formerly regarded as being a sacred place in which hunting was prohibited. After witnessing extensive lumbering of the area by occupying Japanese, Cou joint families started to abandon their traditions and taboos. They started to hunt and, as well, the elders held meetings to set up approximately a dozen fishing grounds along the Danayigu River and to use

the fish resources (C.-R. Li 2000). Only clan members were allowed to fish in their own fishing grounds. In addition to use by each clan, some forms of collective use by the entire tribe also existed. At the time, Cou traditional social values, the subsistence economy, supernatural beliefs, the ways of fishing, and the organization and rules set for fishing regulated the frequency and patterns of fishing activities. The Danayigu River had abundant fish resources (C.-R. Li 2000).

Historical Development 1945-1984

After the Japanese had been defeated and had withdrawn from Shanmei, the camphor workers, who were about to be withdrawn from the area, fished for eels with poison. This was the first time that Han people had poisoned fish in the Danayigu (C.-R. Li 2000).

In the early years of Nationalist rule, because of the remote location of Shanmei and the measures that were put in place to control the mountain region, the fish resources in the Danayigu River were not over-exploited (C.-R. Li 2000). For individual or family use, men usually brought a torch and fished with spears. For the entire village, each clan would coordinate a common time for fishing (C.-R. Li 2000; M.-H. Wang 2001). Men mixed the mature fruit of local poisonous plants such as *otofnana*, *otofnana no c'oeha*, or *evi no c'oeha* to stun fish and only big fish were harvested. The harvest was then distributed to each family member who attended the activity, even to those who did not possess fishing grounds (C.-R. Li 2000). Such fishing was only done following certain important tribal activities or rituals (about every three to five years) (M.-H. Wang 2001). Shanmei Cou have reported that the last time that they fished collectively in the traditional way was in December 1979 (Li and Tang 1999).

After the improvement of road connections, more and more lowlanders came to the Tzengwen and Danayigu Rivers, many of whom used electrocution and poison to catch fish. Through observation and imitation, a new generation of Shanmei villagers learned how to electrocute and poison fish themselves. The traditional property rights over the fishing grounds and the traditional rules for fishing survived in name only. Over-exploitation of the fish in the Danayigu River resulted in a sharp decline in the stocks (C.-R. Li 2000; Liu 2002; Hipwell 2007).

The Development of a Danayigu River Management System 1967-1995

The idea of using natural resources to develop a tourism economy was the idea of the former village head (Cou) (M.-H. Wang 2001). In 1967, he went to South Africa as a church representative. When he visited an ecological park in South Africa, he immediately thought of Danayigu in Shanmei. Knowing that the Danayigu was once a prohibited area because the Cou believed there were *hicu* (supernatural forces) in it, he thought that if Danayigu could be restored and hunting prohibited again, the combination of an ecological park and Cou tradition could be a good basis on which to build tourism (Interview 2004). If well protected, he believed that the river fish stock would rejuvenate quickly and could be used as an attraction to solve the predicament of lack of funds for the development of scenic places (C.-R. Li 2000).

The environment of the Danayigu River, as with other rivers in Alishan, is the habitat of the Gu fish (*Varicorhinus barbatulus*), the Cou's so-called "genuine fish". The "genuine fish" is regarded as being the most delicious of all the fish and, therefore, they are treasured by the Cou (Li and Tang 1999; M.-H. Wang 2001). The glitter of the silver bellies of the Gu fish as they flip to eat moss on the rocks is an unusual sight. In September and November, Gu fish travel upstream, leaping over obstacles to spawn. The former village head (Cou) thought that if these unusual natural scenes could be restored and managed as sustainable resources, not only would Han Chinese come to watch, but local residents could take advantage of the opportunity to sell them local specialties (J.-S. Gau 1997; M.-H. Wang 2001).

The plan served as an adaptive strategy, one of the main tenets of sustainable livelihoods (Fig. 1). Drawing on local traditional knowledge with appropriate elements from contemporary or external knowledge, the Cou tribe's reverence for the sacred site was harnessed to facilitate the restoration and conservation of Danayigu (Berkes et al. 2000). The taking of Gu fish as a cultural marker was an innovation in the existing culture. To villagers, the Gu fish had cultural (good taste) and subsistence significance but, when used as a tourism product, symbolic, ornamental and economic values were added.

To help to realize his dream, in early 1987 the

head drafted "Bylaws for the Danayigu Self-Administered Conservation District" (C.-R. Li 2000). However, the idea of reviving the Danayigu River and managing its fish resource was new and was not easily comprehended and accepted by all Shanmei residents. In order to obtain the approval of all Shanmei residents, he sought assistance from other important leaders in the community to persuade villagers to agree to the plan to restore the Danayigu River.

The first step was to convince the joint families who owned the fishing grounds on the Danayigu River to turn their rights over to the community. Even though the Danayigu River and its surrounding terrain are state-owned and Han people do not acknowledge the Cou's system of property rights (right of use) to the traditional fishing grounds, Shanmei had maintained such a system. The Danayigu River is 18 kilometers long and was divided into 9 fishing grounds which belonged to the following joint families: *yasiungu*, *tapangu*, *yakumangana*, *yasiugnu*, *e'utsna*, *tapangu*, *e'utsna*, *peongsi*, and *noacachiana* (M.-H. Wang, 1990: 135). In 1988, a committee consisting of the village head, village affairs officer, chair of the board of directors, the directors, etc. was established to hold neighborhood unit meetings and explain the plan. The former village head asked the chair of Shanmei Community Development Association's (SCDA) board of directors to persuade the elders of each joint family to contribute their fishing grounds to the project (C.-R. Li 2000). In the beginning, it was rejected by all the joint families, especially the elders, who believed that such a right could not be transferred because it was an agreement between the ancestors of each joint family. After three rounds of consultation, conducted with servings of cooked boar meat and rice wine, the promoters persuaded the elders that such family rights no longer actually existed because, according to the law of the Republic of China (Taiwan), the river belonged to the government and the new generation did not acknowledge their ancestors' laws and regulations. The promoters also pointed out that after the Alishan Highway had been opened to traffic, many outsiders came in and out of Danayigu freely and used electrocution and poison to catch fish. It was necessary to adopt centralized management measures to prevent such "illegal" entries (M.-H. Wang 2001). In addition, promoters promised contributors that

the SCDA would respect ancestral traditions and reimburse them with pigs or cash based on the area of the land that they contributed. They also convinced the elders that the plan was a way of rebuilding Cou culture because Danayigu was a Cou sacred site and reviving the river had the connotation of carrying forward Cou traditional culture. Moreover, they emphasized that the action was in the interests of future generations because agricultural intensification and extension were not good options (C.-R. Li 2000). Eventually the elders agreed to contribute their rights to the project. However, they still did not know what tourism was or might be. The former village chief only told them “Let us make money from Han people”. It took about one year to explain, communicate and convince the elders to relinquish their fishing rights (M.-H. Wang 2001).

After almost two years of explanation and communication to reach a consensus of the whole village, the Shanmei Cou convened the village assembly and passed the “By-laws for the Danayigu Self-Administered Conservation District”. This was the first set of by-laws for indigenous self-administration in Taiwan (Gau 2005). The purpose of the by-laws was to develop the tourism industry and promote Shanmei economic growth by means of the establishment of Danayigu as a natural ecological park owned collectively by the Shanmei Cou. The highest authority of the park is the village assembly that authorizes, develops, operates, and manages Danayigu. The bylaws also regulate both Shanmei Cou’s and visitors’ use of park resources and provide penalties if the regulations are violated. The statement was essentially a declaration of Shanmei Cou’s regional autonomy. The Shanmei Cou had made Danayigu their communal homeland and property and, by way of communal resource management, it became a potential tourism destination.

Since it would take a year for the Gu fish to propagate by natural growth, the former village head decided to use artificial reproduction. He knew that two places on the Danayigu River had a number of fish: one was *mohohizu* (God’s home) and the other was the Danayigu holy spring. The common characteristic of the spots was that huge rocks stand in great number and outsiders are hesitant to climb. There are springs under the rocks and the fish move to the fountainheads under the rocks. Only after a poisoned current of water passed them would they swim back into

the main stream (M.-H. Wang 2001). The former village head brought members of the Shanmei Presbyterian Church and his neighbors twice at night to catch both fry and adult fish which were then released into the first and second fish viewing zones (see below). According to their rough estimates, 12,900 fish were released back into the Danayigu River and about 1,900 of them were adult fish. By a cautious estimate, after one year, they believed that the fish would increase by ten times, meaning that there would be 19,000 fry. In the second year, the original fry would turn into adult fish which would produce more fry. His conservative estimate was that it would take less than 5 years to have over 1 million fish in the Danayigu River. The number of fish would “explode” and, during the rainy season, fry would be flushed into the Tzenweng River. Therefore, it was said that Danayigu was the home of Gu fish protection (Gau 1997: 56; M.-H. Wang 2001).

Starting in November 1989, the former village head, his sons and several members of Shanmei Presbyterian Church patrolled the river to prevent outsiders and local residents from catching fish. In March 1990, the river management group and the Shanmei Tourism Promotion Committee also voluntarily joined the action. Then more villagers joined voluntarily, patrolling when they had spare time. By the end of 1990, a patrolling team had been formed which consisted of about 70 males aged from 15 to 50 years (C.-R. Li 2000). Because residents frequently went to Danayigu, it became a common topic of conversation and a new symbol of identification in Shanmei. The volunteer action continued until the end of 1994 when a system was established to hire full-time personnel for the patrols. During the preceding four years, the people involved in the work of fish protection had not been paid and may have actually contributed some cash as well as their time (M.-H. Wang 2001).

The Establishment of Danayigu River Ecological Park 1995-present

After the river protection plan had been in place for two years, the number of Taiwan Gu fish had increased to tens of thousands (M.-H. Wang 2001). An area was then opened for permit-based fishing as a means of generating funds for the ecological park. During this period, the villagers worked hard to get the park ready, such as by constructing trails. They did this without external

financial support. The park was formally opened to the public in 1995. The following year, the park co-sponsored with the China Times Cultural Foundation, the “First Formosan Taiwan Gu Fish Festival”. The event attracted more than 1000 visitors. “It was on television and everyone felt that it was something fresh and interesting,” said the former village head, smiling proudly at the memory. “It was a big success!” (Liu 2002).

A substantial number of visitors have come to Shanmei in past years, steadily increasing from 33,194 in 1998 to 179,357 in 2006. The employment opportunities created directly and indirectly from Danayigu Park have had major impacts on Shanmei villagers’ livelihoods. The Shanmei Community Development Association (SCDA) has eight paid positions, including the chair the board of directors, the general executive, the secretary, the accountant, the cashier, a general assistant and two clerks. These personnel change every two years in accordance with the re-election of the board of directors (SCDA 2005). Under SCDA, the Shanmei Community Share Cooperation (SCSC) was established in 2004 to take charge of affairs in the park (SCDA 2005). It began with 29 positions in the park and has since expanded its personnel to 33, including the manager of SCSC, the public relations agent, six patrolling staff, gate keeper/ticket seller, plant tender/janitor, the director of the dancing league and formal dancers. In addition to wages from employment in SCDA, SCSC and the park, tourism income also comes from a variety of other sources (Table 1).

Tourism Development and Livelihood Change in Danayigu Ecological Park

Local Identity and Traditional Knowledge as Critical Factors

Local territorial identification in Shanmei was promoted by the establishment of Danayigu Ecological Park by the Shanmei Tourism Research Group in 1985 and the Shanmei Tourism Promotion Committee in 1987. Gu fish were used as a cultural marker in 1989 (Ray 1998), leading to winning a prize from the Council of Agriculture in 1992 for being a model for the promotion of environmental preservation. All of these actions belong to the stage of the creation of territorial identity (Liang and Chang 2005). Traditional knowledge of river fishing and the relatively closed geological landscape of Danayigu that facilitated the control of access provided an opportunity to actualize the tourism imagination for both the hosts and guests (Li and Tang 1999; Liang and Chang 2005).

However, tourism inevitably required the management of knowledge across cultural boundaries, for tourism is not an indigenous activity. Innovations were required in local knowledge and practice (Jóhannesson et al. 2003), such as shifting traditional joint families’ river fishing grounds, which had social and symbolic meanings, into collectively-owned tourism space, and shifting the custom from eating fish to watching fish. In the face of villagers’ queries and challenges as the initiative was put into

Table 1: Sources of tourism income in Shanmei

<i>Community Collective Income:</i> Cleaning fee, parking fee, fish feed, soft drink and spring water, fishing fee, public phone, rent of Danayigu restaurant, vending machine	
<i>Inside the park</i>	<i>Outside the park</i>
Wages from employment in the park: director, patrolling staff, gate keeper, plant tender, janitor, dancers	Self-run enterprise, e.g., lodges, restaurants, homestays, campsites, cafes
Semi-community-run enterprises: Danayigu restaurant	Wages from employment in lodges, restaurants and homestays
Individual-run enterprise: restaurants, food stalls, handicraft stores	Sales of package tours and Cou life experience camp
Self-employment, e.g., tour guides	Crafts sales to tourists
Sales of local specialities to park visitors, e.g., seasonal agricultural products	Leasing unused land to restaurant owners for food production, e.g., planting crops, raising livestock
Temporary employment for park-related construction and development	Leasing unused land for the operation of tourism enterprises
Sales of cultivated Gu fish	Teaching craft DIY in studios
Sales of crafts sales	
Leasing land to stall businesses and parking lots	

Source: Interviews 2004 - 2005

practice, territorial identity become an important underpinning of the process of innovation and adaptation (Liang and Chang 2005). Until 1979, Shanmei still used river resources according to traditional norms and the majority of Shanmei residents still remember the custom clearly. It is an important part of the social capital⁶ of the place that regulates Cou ways of fishing and their fishing behavior.

Berkes (1999: 1252) notes that traditional knowledge is a knowledge-practice-belief complex, “evolving by adaptive processes and handed down through generations by cultural transmissions, about the relationship of living beings (including humans) with one another and with their environment”. Knowledge refers to the local observational understanding of species and other environmental phenomena; practice refers to the way people carry out their resources use activities; belief refers to how people see themselves in relation to the environment. Such local knowledge includes and specifies ways of doing things and ways of understanding the world (an accumulated belief system and culture that is informed by an understanding of how living things relate to each other and relate to the environment), the way of doing things (the way people carry out their resource use activities) and, in this case, knowledge of the river as a practical asset imbued with symbolic values. A Cou scholar described the process of the ecological protection and conservation of the Danayigu River from the point of view of the action initiator (M.-H. Wang 2001: 10):

The key to Danayigu’s success is certainly not in a formal management pattern, nor the superiority of natural scenery, but lies in the continuation of the deep, traditional river culture and collective ownership of Cou clans. Under the logic of the market economy, it takes advantage of trends and creates a monopolized economy in the locality.

Traditional knowledge of the river was used to establish Bylaws for the Danayigu Self-Administered Conservation District, and to continue the spirit of collective sharing that is a fundamental aspect of Cou culture. Even if fish protection was initiated for economic gain, from a deeper perspective, whether actors applied the idea of environmental conservation, resorted to the revitalization of traditional river management, or practiced religious beliefs (Fu 1998), they all represented the regeneration and practice of river

culture (Liang and Chang 2005). This helped to persuade the elders to approve the plan, release river rights, and it promoted the villagers’ approval of the self-administered bylaws (Liang and Chang 2005).

The adoption of Gu fish as a cultural marker was an innovation in the existing culture and a step taken in pursuit of a new identity. Church networks facilitated the innovation (Liang and Chang 2005) and through the mobilization of the Presbyterian Church and women in the village, more than 12,900 Gu fish were released in the Danayigu River for artificial reproduction 10 days after the village assembly in 1989. During the period of river restoration, members of the Presbyterian churches in cities came to visit Danayigu and supported the conservation action by donations and brought in more members for visits. This helped to change residents’ perspectives on Gu fish. Later, a large number of visitors’ poured into Shanmei resulting in enhanced incomes which further strengthened the new identification with Gu fish. The increased income is a main factor in the change in perspective but the social relationships through the unofficial organization of the church are important capital (Liang and Chang 2005).

Implementation and Validation of a Fee System for Revenue Generation and Benefit Sharing

During the period of the Shanmei Tourism Promotion Committee (1989-1994), the purpose of undertaking conservation tasks in Danayigu was further establishment of the tourism industry in Shanmei. Nonetheless, with respect to making a profit, because the committee was registered as an informal organization, it lacked a legal basis for charging a fee. However, an official document on “Integrated Community Building” was released by the Taiwan Council for Cultural Affairs. To be in tune with this opportunity, a village assembly was held and the decision was made to establish SCDA and to put the Shanmei Tourism Promotion Committee under this association. Such an arrangement enabled Danayigu Park to become legal and enabled Shanmei truly to own Danayigu (Li and Tang 1999: 16 from Gau’s narrative).

In order to gain an income for the association, visitors were charged a maintenance fee. During certain periods of the year, the area is also open to the public for fishing and a fishing fee is

charged. Other sources of income are selling Gu fish fry, fish food, soft drinks and spring water and providing services, such as a tour guide. Once staff salaries have been paid, the remaining income is used by the SCDA. The revenue of Shanmei in 2004 was NT\$ 20,686,290 (USD\$ 827,452) including the income from Danayigu Ecological Park (80.1 percent), government subsidies (5.1 percent), interest (0.9 percent), other (2.5 percent), and the balance brought forward from 2003 (11.4 percent) (SCDA 2005). SCDA takes the profits generated from Danayigu Park and subsidies from government organizations and uses them for community development, job creation and the provision of social services. The money that is distributed can be grouped into 8 categories: personnel expenses (8.4 percent), office expenses (5.3 percent), agency costs (16.2 percent), social services (23.7 percent), conservation fee (wages of patrol staff) (17.6 percent), community dancing league (17.2 percent), the Gu Fish Festival (0.6 percent), and income taxes (10.9 percent) (SCDA 2005). Through the system of benefit sharing, a variety of livelihood resources has been generated, including economic, social, physical and human capital (Interviews 2004, 2005; SCDA 2005).

Through the operation of Danayigu Ecological Park and SCDA, different assets, tangible and intangible, have been accumulated and dispersed on individual, household, and community scales.

Organizational Structures and Institutional Processes

As highlighted in figure 1, organizational structures and institutional processes combine livelihood resources and allow tourism, as one of several livelihood strategies, to be pursued and various outcomes, from tourism in particular, to be realized.

The Role of an Individual

One important factor of Shanmei's success is the prominent role played by an individual with foresight. This can be placed under institutional factors in the framework even though it is not mentioned in the framework specifically, as such an individual applies "regularized practices (or patterns of behavior) structured by rules and norms of (Cou) society which have persisted and widespread use..." (Giddens 1979, cited in

Scoones 1998: 12). A former village head (Cou) in Shanmei had a good grasp of Cou traditional knowledge and guided the use and valorization of resources that have been linked to place identity and have been marketed directly and used in the marketing of the territory (Ray 1998; Interviews 2004, 2005). Shanmei residents have been innovative with "traditional" knowledge and have generated new identifications, enabling tourism activities to be established from within rather than derived or developed from outside (although the initiator was stimulated by his visit to South Africa). They have emphasized the *esprit de corps* of the Cou people's clan system with collective actions and have applied it in local institutions for tourism development (Interviews 2004, 2005). From the perspective of the cultural economy, "both the local/producer and the extra-local/consumer can be conceptualized as having a power of agency. The cultural economy thus fits with the emerging theory that development activity of local territories consists of both endogenous and exogenous forces in dynamic relationships or creative tensions..." (Ray 1998: 4). Filling the new economic activities with meaning and the spirit of "traditional" knowledge has increased their endogenous strength and facilitated local control of development. By using his significant status in the Presbyterian churches, the former village head put his ideas into practice by exercising social relations (important social capital) of the unofficial organizations of the churches (Interviews 2004, 2005). He encouraged and guided villagers to engage in tourism development activities. Such involvements and learning processes have generated new identifications and tourism-related activities have gradually become part of villagers' lives (Liang and Chang 2005). Cherishing a religious-like spirit of devotion and persistent learning, the initiator built upon traditional ideals with actions.

Organizational Structures

The framework also helps to promote understanding of the significance of organizational structure, social norms and institutions, in addition to leadership, when using tourism as a livelihood strategy. SCDA is the only organization with specific regulations for decision making in Shanmei (Interviews 2004, 2005). In a single organization it is easier to reach consensus and

implement tasks and projects effectively to earn tourism income.

Because of the Cou's spirit of sharing, Danayigu Ecological Park was established as a common property resource (CPR) owned by all Shanmei residents. Effectively, it functions as an informal institution on the micro level, mediating access to and control over Danayigu even though it is illegitimate in the eyes of the Taiwan government. According to Leach et al. (1997, 1999), common property institutions like this one facilitate gaining access to endowments and entitlements – the rights and resources that social actors have (1999, p.233). Environmental entitlements refer to alternative sets of utilities derived from environmental goods and services over which social actors have legitimate effective command and which are instrumental in achieving well-being (Gasper 1993; Leach et al. 1997, 1999; Nunan 2006). A CPR is “a property on which well defined collective claims by an exclusive group are established, the use of the resources is subtractive, having the characteristic of a public good such as indivisibility” (Kadekodi 2004: 19-20). The set of environmental entitlements derived from Danayigu for the Shanmei Cou include a number of sources of tourism income generated from inside and outside of the park.

Because of the spirit of sharing, the regulations of the association set up in the early stage of tourism development clearly stipulated that income generated from the park is to be used for all Shanmei villagers. The spirit is reflected in the benefit-sharing system. Through the system, the collective income (financial capital) is transformed into the following forms of capital and a strengthened asset base (i.e., livelihood resources): 1) human capital, such as skills, knowledge and creativity through various training classes and group formations; 2) physical capital, such as the improvement and construction of buildings and roads; 3) social capital, such as the establishment of a welfare program as a safety net and strengthening of the association's governance structures; and 4) financial capital, such as collective savings to generate interest, maintain the facilities within the park where cash is generated, and to provide production equipment for local farmers (Interviews and observations 2004, 2005). As demonstrated in the adapted framework (Fig. 3), major feedback relationships exist between livelihood outcomes and livelihood assets through the system of benefit sharing.

This benefit-sharing system is another informal institution on the micro level, legitimized by social norms, transforming the utilities derived from the cash generated inside and outside the park (entitlements) to more sustainable livelihood outcomes (Leach et al. 1999). Overall community enhancement benefits each individual within the community. Almost every household in Shanmei has links to the park and this maintains the park's territorial identity. A number of paid jobs created in the association and the park are required for their effective operation, providing poor households, the jobless, disabled, women, and seniors with opportunities to earn cash, reducing dependence on government subsidies (Interviews and observations 2004, 2005). When pursuing economic development, the system reduces vulnerability caused by social differentiation, uncertainty of tourism-related activities and the macro-economic conditions of the market economy (Observations 2004, 2005). As indicated in the adapted framework (Fig. 3, see discussion below), major feedback relationships exist between transforming structures and processes and vulnerability. The system also improves other aspects of well-being such as a sense of control and maintenance of cultural assets (e.g., Gu fish, collective ownership) and thus has a feedback effect on vulnerability and the asset base (Adato and Meinzen-Dick 2002; Observations 2004, 2005). The system not only sustains tourism itself but also contributes diverse benefits to the economic, environmental, social, and cultural aspects of Shanmei villagers' lives. A form of tourism is in place that contributes to equity, cultural integrity, and community capabilities to achieve sustainability through livelihood outcomes as indicated in the framework. It is not the establishment of a new community-based organization that, in itself, indicates progress, rather it is the fact that the community appears to be able to develop institutions *appropriate* to the task at hand and to *adapt and develop* them to meet new challenges or overcome problems (Ashley 1998). Tourism enterprises in Shanmei include businesses that are both collectively and privately owned. The former enables the majority of villagers to benefit and, thus, obtains their approval and support. Though a few private enterprises pursue maximum personal profits in a cost-effective manner, their businesses are constrained to a relatively small scale because of the capacity of facilities, tourism

seasonality and fluctuations in income (Interviews and observation 2004, 2005).

Common property resources and the institutions for their management have created several advantages. A large income is generated from the park and the wide distribution of benefits obtains Shanmei villagers' approval (Interviews and observation 2004, 2005). One main reason that Danayigu river protection can continue is because its common property management and institutions enable many villagers' livelihoods to be improved. Conservation has attracted visitors to the Danayigu park and Shanmei villagers have realized that they can benefit through catering to visitors. Therefore, they continually support river protection (one important component of ecotourism) (Interview 2005).

Social capital has facilitated common property (natural capital) management wherein collective action is needed to coordinate the actions of individuals for adherence to rules. The Cou emphasize collective values (S.-S. Wang 1995). Culture, traditional ecological knowledge, management rights, and institutional capacity are preconditions that were in place that enable effective common property resource management (CPRM). Thus, Cou culture has guided the institutional processes and the transformation of organizational structures, as indicated in the framework.

Social Capital and Reduced Vulnerability

Social capital, a livelihood resource that is identified in the framework, has also played an important role in influencing the consequences of a range of tourism-related activities in Shanmei. Social networks and social relationships serve as a buffer to increase positive aspects of tourism and reduce negative ones. For instance, when external shocks (e.g., typhoons) are encountered, because of the decreased number of tourists, individuals whose livelihoods rely mainly on tourism cannot have enough income and often borrow money from relatives and friends to pass through a period of cash shortages (Interviews 2004, 2005). Local food that is supplied to tourism enterprises relies on reciprocal exchanges through a strong social network between Cou villages in the Alishan area. Collective actions based on community solidarity reduce the vulnerability of high-risk tourism and uncertainties generated from changing external and internal factors. These

findings correspond to Adger's study in coastal areas in Southeast Asia and the Caribbean (2003). The social capital relies on kin-based (clan, tribe) relationships and practices (Putnam 1993). In terms of tourism's contribution to local lives through social networking, family and relatives support each other in various forms, such as by offering labor during harvest seasons and during the peak tourism season (Interviews and observation 2004, 2005). As indicated in the framework, assets are the strengths or endowments on which people draw to carry out livelihood activities and achieve outcomes.

Adaptation of the Sustainable Livelihood Framework

The SL framework has been helpful to us and others (see for example, Lee 2008) in guiding examination of if and how tourism has been incorporated into livelihood strategies. Given a vulnerability context related to their marginalized status as aboriginal peoples, villagers have used a combination of livelihood resources (e.g., traditional knowledge as human capital, social networking as social capital) through a variety of institutional processes (e.g., collective action, Presbyterian churches) in order to protect the river and develop tourism. This has resulted in the ability to employ a combination of livelihood strategies (e.g., tourism, agricultural diversification) with varied livelihood outcomes (e.g., more income, increased well-being).

In our research, there were several aspects of people's lives that were not well-captured in the original framework, yet they are important in explaining people's choices and decisions. Our findings suggest, for example, that for communities like those in our case study, Scoone's SL framework (Fig. 1) does not place sufficient emphasis on the processes of adaptation of customary ideology and community identity to adequately encompass our findings on tourism development. As a result, we have explored several adaptations to the framework as indicated in figure 3. First, culture, in this case Cou culture as the focal point of the study, provides a guiding context for institutional processes and organizational structures. Institutional processes facilitated the use of cultural tourism as a livelihood strategy to increase Shanmei's autonomy of land use and economic development. They subsequently modified Cou culture. Therefore, the

arrows go in both directions between the two components. From a broader perspective, as a minority group with a culture that is different from the majority population, the whole framework is embedded in culture for cultural difference from the majority is the context in which the Cou operate. As mentioned earlier, the colonial activities of the Japanese and the Han Chinese, and various forces of modernization have also impinged on the Cou from outside and continue to do so.

Our principal adaptation of the framework then, has been to explore ways to place more emphasis on the relationship between culture and sustainable livelihoods. For our purposes, we have expanded the framework to include culture, which includes, for example, beliefs, traditions, identity, language, sacred sites, ceremonies and festivals. Other aspects that are linked to culture may include a strong social network as social capital derived from the clan system which supports all livelihood strategies by the practices of reciprocity, redistribution, and exchange, as well as the value of attachment to land. These cultural assets may not have direct economic value but they are centrally important in people's lives, choices and well-being.

In our case study, we found that the needs of the collectivity take precedence over individual rights, particularly with regard to the distribution of wealth. The fundamental difference in emphasis between the aboriginal economic view and the beliefs of liberal capitalism relates less to the means by which wealth is created than to the appropriate distribution of resources once these have been acquired. Aboriginal cultures share a deeply embedded belief that the welfare of the collective is a higher priority than the acquisition of wealth by the individual (Royal Commission on Aboriginal Peoples 1996: 885).

When Shanmei adopted tourism as a new livelihood strategy (activities), the kinds of institutional processes and organizational structures that have become mediators have enabled the majority of Shanmei residents to create a new identity based on traditional knowledge, incorporating it into their daily life. How things have been done in the past and the links between Gu fish and fishing practices with the ancestors continue to influence the meaning and value of Gu fish. In addition, the system of values or world views and institutions reflects a collective orientation to life. Culture, here, can be

defined as "a fairly stable set of taken for granted assumptions, meanings and values that form a backdrop for action" (Smircich 1985: 58). This definition reminds us that we observe actions or behaviors, not values. They are connected because values are generally held beliefs that define what is preferable in influencing behavior. At the heart of all these views on culture is the notion that value systems have consequences for the structuring and functioning of institutions and organizations and the behavior of individuals within them (Chapman et al. 1991)

It is inappropriate to try to reduce these aspects of culture, identity, and values by discussion of them simply as "assets" or "capital" (Mosse 2006). Hebinck and Bourdillon (2001: 6) suggest that the livelihoods framework has often put over-reliance on the notion of "capital". They also draw on Long's (2001) work on knowledge to critique its inclusion in the conceptualization as part of "human capital" because, as such, it implies that knowledge is a universal, culturally-neutral resource that can be assessed as a commodity, rather than recognized as a social construct or a relationship that is redefined within a local context.

As indicated in the adapted framework (Fig. 3), transforming structures and processes mediated by Cou culture have a profound *influence on access to assets*. They: (a) create assets and determine the terms of exchange between different types of capital e.g., income (financial capital) generated from the park is invested in basic infrastructure (physical capital) and various education classes (human capital); and (b) determine access e.g., ownership rights of the park, and institutions regulating access to common resources. They also effectively determine *access* to livelihood strategies. Moreover, there is a direct impact on *livelihood outcomes*. Responsive organizational structures use the collective income to implement social services in Shanmei. The services have increased villagers' well-being, promoted a sense of self-confidence and self-control, and reduced vulnerability through the provision of social safety nets.

Direct feedback also exists to the *vulnerability context*. Such *institutional processes* (e.g., management of common property resources) of tourism development, implemented through *structures* (e.g., decision-making procedures, benefit-sharing system), can help to cushion the

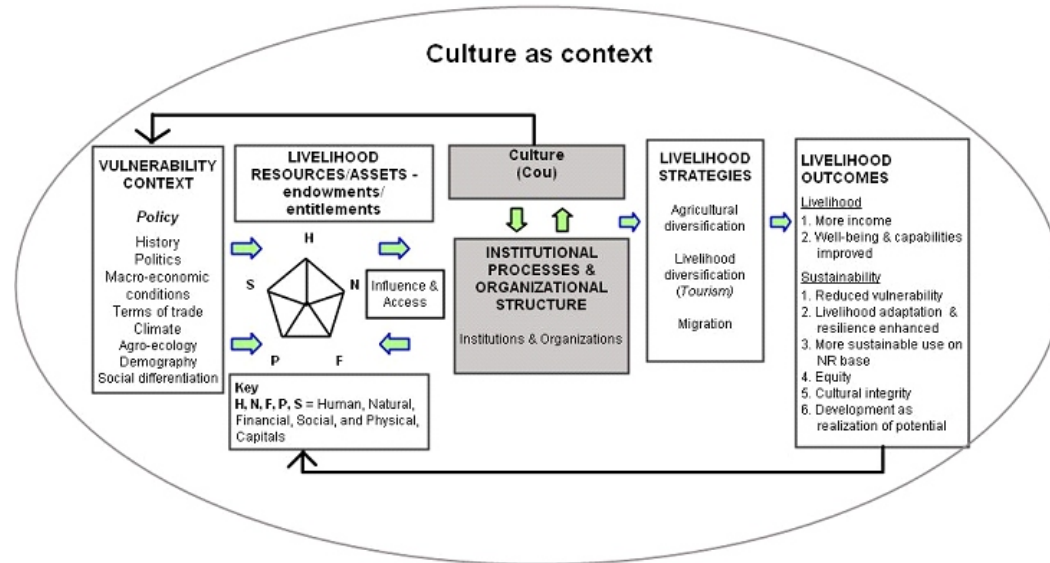


Fig. 4. Sustainable Livelihoods Conceptual Framework with Tourism (adapted from DFID (1999) and Scoones (1998))

vulnerabilities (e.g., uncertainty caused by tourism seasonality). Furthermore, through the benefit-sharing system, financial capital (i.e., collective income as one major *livelihood outcome*) is transformed into different forms of capital and strengthens the community asset base (i.e., *livelihood resources*). The feedback relationship between *livelihood outcomes* and *livelihood resources* is also added into the framework. Tourism is also added into the framework as a form of *livelihood diversification* in the non-primary, service economic sector. With the Taiwan economy shifting towards a service- and high-tech-based economy, tourism, in the form of agrotourism, contributes to *agricultural diversification*, rather than agricultural intensification – extensification as described in Scoones's original framework (Fig. 1).

CONCLUSION

Our research suggests that one important strength of the SL livelihood framework is that it encourages the adoption of a broad perspective for examining impacts of tourism development on different aspects of people's lives. When tourism

is inserted into an economy, it can displace existing activities. Ideally, however, it should complement and enhance them. Findings of our research affirm that sustainable tourism development is best understood in the context of pre-existing livelihood strategies. The Shanmei case study shows that local livelihood choices and strategies, in this case the adoption of tourism, are rooted in a local culture that is not static and that constantly adapts to new circumstances. It illustrates the nexus of macro-economic and micro-economic conditions through local responses to extra-local forces. These processes are locally specific, shaped by history, cultural repertoires, economic and political relationships and the natural environment. Livelihood is essentially contextual (Hebinck and Bourdillon 2001). Our research suggests that local institutional processes and organizational structures can be used to increase the positive outcomes of tourism and to reduce negative ones, and to change and shape the contexts in which people try to make a living, improving the economic, social and cultural well-being of rural areas.

The sustainable livelihood framework was particularly useful to us because it focuses

attention on the needs and interests of local people. Adapted in the ways we have suggested in figure 3, we have found that the SL framework can do justice to the importance of culture and the prominent roles played by key individuals. The latter, in itself, may be a reflection of culture for most aboriginal societies possess elders and other leaders who are the repositories of traditional knowledge that can be used to guide new initiatives while maintaining continuity with the past.

Results of our single case study suggest that further work in incorporating culture as a dynamic influence both with respect to history and present reality into sustainable livelihood formulations will be useful. Similarly, and more broadly, the incorporation of culture into theoretical formulations of sustainable tourism and sustainable development is clearly of key importance in relation to indigenous and aboriginal communities and is worthy of additional investigation and analysis.

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NOTES

1. The executive branch of the government of the Republic of China. Its formation, as one of five *Yuans* of the government (i.e., Executive Yuan, Legislative Yuan, Judicial Yuan, Control Yuan, Examination Yuan), stemmed from the Three Principles of the People (i.e. Government of the People, Government by the People, Government for the People), the constitutional theory of Sun Yat-sen, but was adjusted constitutionally over the years to adapt to the situation in Taiwan by changes in the laws and the Constitution of the Republic of China. It is headed by a president, commonly referred to as the Premier of the Republic of China, and has a vice president (vice premier), and eight cabinet ministers, various chairpersons of commissions, and five to seven ministers without portfolio as its members. The vice premier, ministers, and chairpersons are appointed by the President of the Republic of China on the recommendation of the premier (Executive Yuan, Taiwan 2008).
2. The Ministry of Transportation and Communication

(MOTC) is charged with the administration of all transportation and communications operations and enterprises in the Republic of China. Transportation and communications operations comprise four categories: communications, transportation, meteorology, and tourism (MOTC 2008).

3. One of 16 county governments in Taiwan.
4. The Tourism Bureau is under the Ministry of Transportation and provides planning and oversight for tourism development.
5. After the Kuomintang (KMT) regime of the Republic of China (ROC) retreated from mainland China to Taiwan, the distinction of having the longest period of martial law in modern history was imposed on Taiwan and the other islands administered by the Republic of China. In the aftermath of the 2-28 incident of 1947, martial law was declared in 1948 and the perceived need to suppress Communist and pro-democracy activities on the island meant that martial law was not lifted until 1987.
6. Social capital. In the context of the sustainable livelihoods framework it is taken to mean the social resources upon which people draw in pursuit of their livelihood objectives. These are developed through:
 - networks and connectedness that increase people's trust and ability to work together and expand their access to wider institutions;
 - membership of more formalized groups which often entails adherence to mutually agreed or commonly accepted rules, norms and sanctions; and
 - relationships of trust, reciprocity and exchanges that facilitate co-operation, reduce transaction costs and may provide the basis for informal safety nets (DFID 1999: 9; Putnam 1993)

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