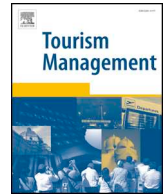




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Livelihood sustainability in a rural tourism destination - Hetu Town, Anhui Province, China

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ABSTRACT

Tourism impacts the livelihoods of destination communities for both good and ill. This study restructures the sustainable livelihood framework to analyze tourism and rural sustenance at Hetu Town, Anhui Province, China. A mixed methods research design is adopted, incorporating a quantitative questionnaire survey and qualitative semi-structured interviews. Data were collected from April 2015 to February 2016. Improvements in livelihood diversity were identified with most residents adopting a multi-activity strategy using synergistic relationships between tourism and other sources of income, thereby enhancing overall livelihood sustainability. However, freedom to engage in new livelihoods varies as those with limited assets are difficult to participate in tourism. An income gap has emerged within the community. Such social risks have not been considered by the local government and are not reflected in local policies. Practical implications are discussed to enhance tourism participation and ensure appropriate benefit sharing with an emphasis on the roles of government.

1. Introduction

Tourism is an agent of change and an important economic development option with the potential to reduce the gap between the poor and the affluent (Wu and Pearce, 2013). However, tourism development often induces both positive and negative changes in destinations. In particular, the establishment of tourism areas and associated developments sometimes results in the displacement and relocation of communities (Sirima & Backman, 2013; Su, Wall, & Xu, 2016a), disrupting economic systems, socio-political processes and organizations (Sirima & Backman, 2013). As key stakeholders of tourism, destination communities and their livelihoods are critical to tourism sustainability and regional development. However, limited study has been accorded to interactive relations between community livelihoods and tourism development and how these interactions contribute to sustainability.

A sustainable Livelihood Framework (SLF) focuses on the interests of communities and recognizes the complexity of people's lives. Being a holistic and people-centered approach to sustainability, SLF has proven to be a useful analytical tool for the examination of tourism and community relations, particularly in the rural context (Tao & Wall, 2009, 2011; Su et al., 2016a, b, c). In this paper, SLF is restructured to fit a tourism context and then applied to assess critically the relationships between tourism and livelihoods of rural communities at Hetu Town,

Yuexi County, Anhui Province, China, and to examine how these interactions affect sustainability at the study community. Practical implications for community livelihood sustainability are then discussed.

1.1. Tourism and the rural community

As a vehicle of economic growth and diversification, tourism can make important contributions to the economies of destination areas by generating income and employment opportunities, particularly in a rural context (Sharpley, 2002). Tourism development influences other sectors such as agriculture, fishing, forestry, livestock raising, food processing and handicrafts, in ways which can contribute to the well-being of the entire community (Muresan et al., 2016; Su et al., 2016c, 2017, 2018). Instead of replacing traditional economic activities, previous studies support the potential of tourism to increase livelihood portfolios by becoming an additional livelihood option for rural residents, enabling them to access extra income through utilizing existing livelihood resources without requiring a large amount of additional inputs (Kheiri & Nasihatkon, 2016; Muresan et al., 2016; Su et al., 2016c, 2017). Therefore, tourism has long been considered to be an effective catalyst of rural development and revitalization. It has been widely promoted and relied upon to address the social and economic challenges facing peripheral rural areas, especially those with declining

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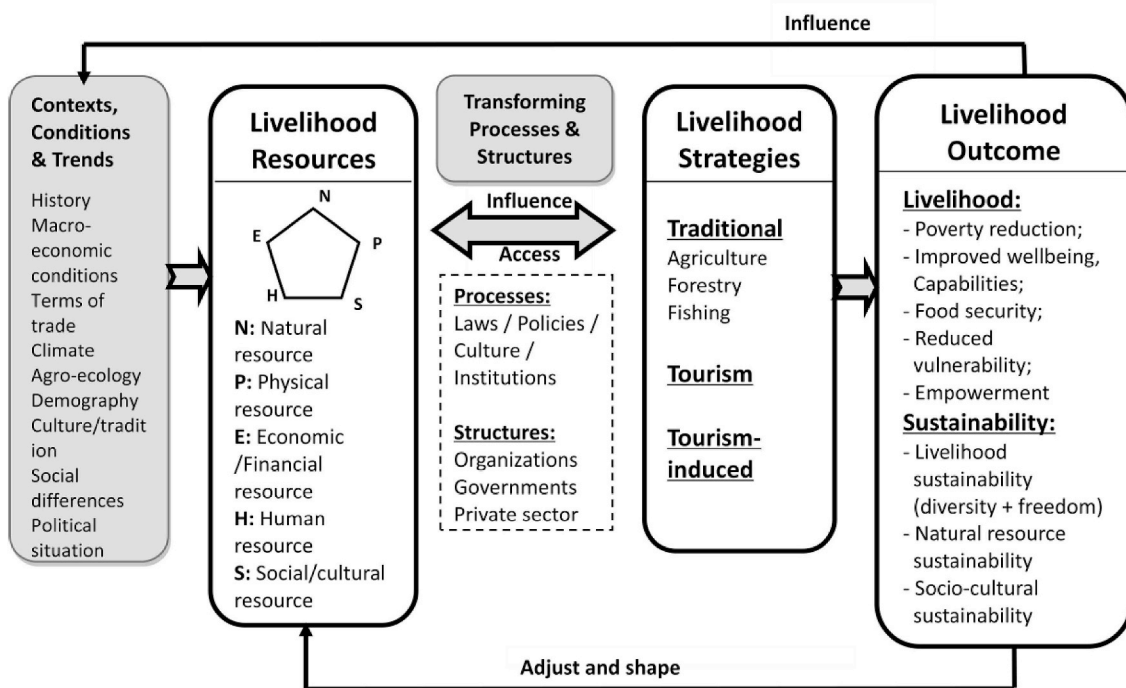


Fig. 1. Sustainable Livelihood Framework in a tourism context (derived from Su et al., 2016a,b,c).

traditional sources of sustenance and the loss of rural labor through migration to urban areas (Kheiri & Nasihatkon, 2016; Muresan et al., 2016; Sharpley, 2002; Su et al., 2016c, 2017).

Support for tourism in rural areas is based upon a number of perceived benefits, particularly diversification of local economies through employment opportunities in both tourism related and traditional sectors, opportunities for income growth through the adoption of multiple activities, the creation of new markets for local products, revival of local culture and enhancement in local pride (Sharpley, 2002; Kheiri & Nasihatkon, 2016; Su et al., 2016a; b; c; Su et al., 2017; Su et al., 2018). Moreover, there is evidence that local knowledge and skills in traditional livelihoods can be used successfully to engage in tourism to create participatory tourist experience and enhance local place attachment (Su et al., 2017, 2018). Therefore, the construction of synergistic linkages between tourism and a variety of traditional means of support, such as agriculture, fishing, livestock raising and forestry has been widely recognized and promoted as an important way to promote rural development and as a strategy to achieve poverty reduction goals, particularly in a developing country contexts (Kheiri & Nasihatkon, 2016; Muresan et al., 2016; Su et al., 2017, 2018).

However, tourism benefits to rural community and rural development may not always be as positive as expected (Sharpley, 2002). Previous research has identified cases where tourism contributions to farm incomes and return on investment are low (Hjalager, 1996; Sanches-Pereira et al., 2017) and participation in tourism sometimes enlarges income gaps and breaks social ties within rural communities (Su et al., 2016a; b; c; Su et al., 2018). Such outcomes undermine the potential of tourism to enhance local livelihoods and rejuvenate rural economies (Sharpley, 2002; Su et al., 2016a,b,c). Therefore, there is a need for in-depth analyses of the interactions between tourism participation and economic activities, so as to develop management strategies to achieve development goals in rural areas.

2. Sustainable livelihoods in a tourism context

The sustainable livelihood concept was initiated in the area of rural studies and has been extended and applied in a variety of fields in both developed and developing countries (Ellis, 2000; Scoones, 1998; Tao &

Wall, 2009; Mbaiwa & Stronza, 2010; Mbaiwa, 2011; Snider, 2012; Wu and Pearce 2013). Comprised of the capabilities, assets and activities required to make a living (Chambers & Conway, 1992, p. 7; Ellis, 2000, p. 19), a livelihood can be defined at different hierarchical levels (Chambers & Conway, 1992). “Commonly, livelihoods are investigated at the household level and then combined, either explicitly or implicitly, to provide insights at the community level” (Su et al., 2016c, p. 22). The scale of investigation also influences results, as research indicates that the enhancement of sustainability at a community level does not guarantee the same positive change at the individual or household levels (Su et al., 2016a; b; c).

According to Chambers and Conway (1992), a livelihood is considered sustainable when it can “cope with and recover from stresses or shocks, maintain or enhance capabilities and assets, and provide livelihood opportunities for succeeding generations” (Su et al., 2016c, p. 22). When incorporating benefits at the local and global levels and in both the short and long term (Chambers & Conway, 1992), the assessment of livelihood sustainability can be complex and no thorough evaluation framework has yet been developed to support this.

Livelihood diversity has been used as key indicator to evaluate livelihood sustainability. It includes both the diversity of available options (Mbaiwa & Stronza, 2010; Kheiri & Nasihatkon, 2016) and, also, income allocation derived from a combination of activities (Su et al., 2016a; b; c). In addition, livelihood freedom is proposed here as another important indicator: freedom of choice to select among activity options and the ability to mobilize among different sources of sustenance strategies have been used in previous research that examines livelihood sustainability (Su, Wall, & Xu, 2016b, c; Wu & Pearce, 2013). Besides, in order to enhance livelihood sustainability, it is also important to develop synergistic relationships among potential activities (Su et al., 2016c; Kheiri & Nasihatkon, 2016; Su et al., 2018). Such indicators and their interaction are suitable for analysis of the status of livelihood sustainability at individual, household or community rather than global levels.

Widely used to analyze community livelihoods, the Sustainable Livelihood Framework (SLF), as initiated by UK’s Department for International Development (DFID), is composed of five key components. Drawing upon previous studies, Fig. 1 reconstructs the SLF in the

tourism context to better portray the role of tourism in the livelihood system. Various macro conditions and trends set “the broad context for people's livelihoods” (Su et al., 2016c, p. 23). Livelihood resources, including natural, physical, economic, human and social and cultural resources, are inputs used to generate outcomes in a livelihood system (Scoones, 1998; Niehof, 2004; Su et al., 2016a; b; c). Here, in the tourism context, the cultural component may play an important role in transferring livelihood resources into livelihood strategies, particularly those involving tourism. A variety of strategies is then constructed based on livelihood resources and mediated by transforming organizations and structures (Su et al., 2016a; b; c). Different outcomes may be achieved with various considerations of natural, social and cultural sustainability (Tao & Wall, 2009; Su et al., 2016a; b; c). The whole process is dynamic and interactive as “livelihood outcomes can influence the macro context and conditions and shape the livelihood resources and access to them” (Su et al., 2016c, p. 23).

Previous research has asserted and demonstrated the capability of SLF to guide the analysis of the complex means of support of a community (Tao & Wall, 2009, 2011), to assist in the identification of potential strategies to enhance sustainability (Helmore & Singh, 2001; Lee, 2008; Scoones, 1998), and to provide a framework with which to compare impacts of development initiatives on communities (Snider, 2012; Su et al., 2016b). Moreover, SLF can be a useful tool to facilitate understanding of how various factors, such as land tenure (Snider, 2012), organization type and structure (Tao & Wall, 2011) and mode of development (Su et al., 2016b), influence community livelihoods.

In addition, drawing upon previous research, it is proposed that sustainability at the community or household level can be examined through a two dimensional framework: livelihood diversity and livelihood freedom. Livelihood diversity takes an external perspective and considers not only the number of potential economic activities, but also the level of integration among potential livelihoods and the contribution of each to the overall livelihood status of a community or a household. Livelihood freedom takes an internal perspective and looks at the extent to which the community or household is equipped with the resources and capacity to choose a portfolio and move from one activity to another.

SLF is applied in this study which follows to assess critically the tourism and community livelihood interactions at Hetu Town, Yuexi County, Anhui Province, China. Key research questions include how tourism is affecting the livelihood system of the community, whether and in what ways community livelihood sustainability is modified (as revealed through application of the two dimensional framework mentioned above), and what practical implications can be drawn from this analysis.

3. Research context

3.1. Hetu Town, Xuexi County, Anhui Province

Yuexi County is located in the hinterland of the Dabie Mountains in Anhui Province, China. Hetu town is in the west of Yuexi County and has an area of 172 square kilometers. There are seven administrative villages with a population of about 12,000 people. Most (81%) of the area is forested. With unique and well-preserved natural resources, Hetu hosts two national 4A level Scenic Areas, Mingtang Mountain and Tianxia Gorge, and tourism has been developing gradually since the opening of the former in 2008. Mingtang Mountain Scenic Area received 30,000 visitors in 2014. Tianxia Gorge opened in 2010 and had 25,000 visitors in 2014. The tourist season at Hetu is from April to October. The majority of tourists are from nearby cities with one or two day visits as the major form of tourism.

Fig. 2 portrays the location of Hetu Town and its major tourism resources. The research focuses on the area along 318 National Road connecting Mingtang Mountain and Tianxia Gorge, which is the core area of resident tourism participation, involving the three

administrative villages of Hetu Town: Nanhe Village, Hetu Village and Mingtang Village.

4. Methodology

A mixed methods research design was adopted, incorporating a quantitative questionnaire survey and qualitative semi-structured interviews. The design of the questionnaire and the interview questions were informed by elements of the Sustainable Livelihood Framework outlined in Fig. 1. Data were collected during three field investigations between April 2015 and February 2016. The first involved two weeks in the study area to make initial contacts with key actors in the study area and collect relevant documents. The second field investigation lasted for one month and concentrated on key actor interviews and in-house resident surveys and interview with a focus on those directly involved in aspects of tourism. The third two-week field investigation was used primarily to interview resident informants who were not engaged in tourism. Observations were conducted during the three field investigations to understand the ways in which residents participate in tourism and their involvement in other economic activities. Field notes were taken to document what was observed and experienced.

Interviews have been widely adopted in livelihood research on tourism and resident communities (Xiang, 2009; Tao & Wall, 2011; Snider, 2012; Su et al., 2016a; b; c) where an understanding of organizational structures, policy initiatives and their various outcomes is sought. Therefore, face-to-face in-depth interviews were adopted as the primary research method and were conducted with key government official of Hetu Town, village committee members of Hetu and Nanhe villages, and key management officials of Mingtang Mountain and Tianxia Gorge. The attributes of informants and key interview questions are presented in Table 1. Names and exact position titles of interviewees are not disclosed to ensure anonymity.

To better reflect residents' perspectives, an in-house questionnaire survey integrated with semi-structured interviews was conducted with residents living close to the two scenic areas. Respondents include 45 participants involved in tourism 20 non-tourism participants. Each in-house survey and interview took about 45 min to complete. As shown in Table 1, the questionnaire was used to gather quantitative data on respondents' social and economic characteristics and the status of their resources and strategies. The interview focused more upon their attitudes and perceptions. As tourism participants are highly concentrated close to the two scenic areas along the 318 National Road, almost all tourism participants in the research area were identified and included in the study. Non-tourism participants were surveyed through convenience sampling.

Secondary data were mainly collected from Hetu County government, including Hetu County rural tourism research report and the 13th Five-year plan of Hetu County rural economic development. Background information was also collected from the official websites of Hetu County government and the two scenic sites.

SPSS 19.0 was used to analyze the quantitative data from the resident questionnaire survey. Interviews were first transcribed and thoroughly reviewed. Major themes were then identified and categorized according to the elements of the SLF. Results from different data sources were compared and cross-checked with the contents of the documents that were collected and researchers' field notes.

5. Findings

5.1. Analysis of livelihood resources

Questionnaire survey respondents' demographic characteristics were examined and are presented in Table 1. No statistically significant differences were found between tourism participants and non-participants. In general, respondents are mainly middle aged married adults with low levels of education. Most families (58.5%) have 4 or 5

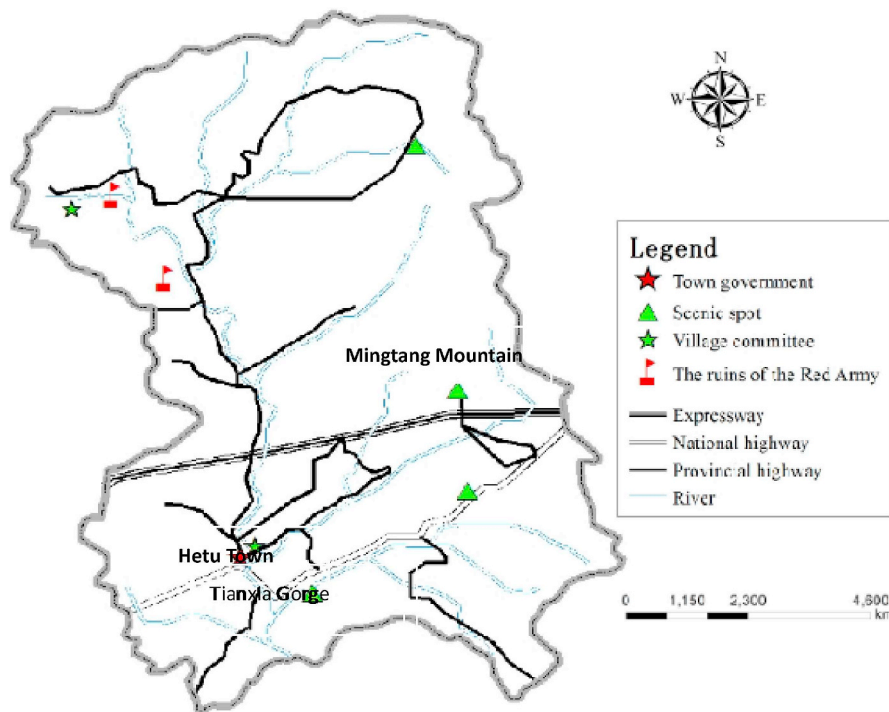


Fig. 2. Location of Hetu town, Xuexi county, Anhui province.

members.

Livelihood resources include natural, physical, financial, human, social and cultural capital. As respondents are found to share similar cultural and educational backgrounds, Table 2 compares tourism and non-tourism participants over key aspects in human, social, physical, natural and economic capital to understand the status of their resources. Results indicate that tourism participants possess higher levels of resources in almost all categories, particularly in terms of their natural and physical capital, as represented by area of tea plantation, area of agricultural land, distance to scenic area and size of residence.

Tourism requires substantial investments in both financial and human terms, and the availability of human capital and economic capital affects the ability to engage in tourism. As indicated in resident interviews, particularly for *Nongjiale* (farm tourism) operators (Park,

2014), house renovation, purchase of daily necessities and home appliances, and facility upgrades require a large amount of investment. Serving tourists is also highly labor intensive and requires a variety of skills. With funding sources largely restricted to savings from the family, relatives and friends, the lack of financial and human resources is stated by non-tourism participants as the major barrier to operating a *Nongjiale* operation (Table 3).

5.2. Analysis of livelihood strategies

Tourism development generates a variety of economic opportunities and increases family income. Ways of tourism participation evolve with the development stages of tourism. During the early stage of tourism development, job opportunities in the study area were mainly

Table 1
List of respondents and key information obtained.

Type of respondent	Respondent	Key interview questions
Semi-structured Interview		
Local Government	1 Key government official of Hetu Town	<ul style="list-style-type: none"> - Status of tourism planning and development - Perspectives on community participation in tourism - Status of community livelihoods - Issues and concerns at the county level and aspirations for the future
Scenic Area administrative office	1 Key management official of Mingtang Mountain Scenic Area 1 Key management official of Tianxia Gorge Scenic Area	<ul style="list-style-type: none"> - Status of tourism planning and development - Site-level management schemes concerning local livelihoods - Perspectives on community participation in tourism - Issues and concerns at the site level and aspirations for the future
Village committee member	1 Key member of Hetu village committee 1 Key member of Nanhe village committee	<ul style="list-style-type: none"> - Village perspective on the status of tourism development and community participation - Livelihood changes induced by tourism development - Attitudes towards these changes - Issues and concerns at the village level and aspirations for the future
In house questionnaire + semi-structured interviews		
Rural resident in the study area	45 tourism participants (including 39 <i>Nongjiale</i> operators) 20 non tourism participants	<ul style="list-style-type: none"> - Socio-economic background - Current level of livelihood resources and livelihood portfolios - Status of tourism related livelihoods - Changes to livelihood resources and activities induced by tourism - Attitudes towards tourism and livelihood changes - Issues and concerns and aspirations for the future

Table 2
Demographic characteristics of respondents.

	Percentage		Percentage		
Age	18–24	3.1%	Education	Primary school	26.2%
	25–34	16.9%		Junior high	49.2%
	35–44	33.8%		Senior high or equivalent	20.0%
	45–54	38.5%		College	4.6%
	55–65	7.7%		University	0%
Gender	Female	47.7%	Family size	2 persons	3.1%
	Male	52.3%		3 persons	18.5%
Marital Status	Unmarried	7.7%	4 persons	27.7%	
	Married	86.2%	5 persons	30.8%	
	Divorced/	6.2%	6 persons	15.4%	
	Widowed		7 persons	4.6%	

generated in construction projects and transportation services. Then, a wide variety of jobs were provided by the two scenic areas, including ticketing staff, guards, tour guides, maintenance staff, lower and middle level management staff, and many others. Moreover, self-employment opportunities also became available for rural residents to produce and sell souvenirs or local specialties, operate family hotels, offer tea or agricultural tourism programs, and provide transportation and other services to tourists. The flexibility and variety of tourism related employment enables residents of different gender, ages, education or skill sets to participate.

As listed in Table 4, many families are engaged in more than one type of tourism related employment, either full time or part time, and employed by the family or self-employed. The most common form of participation in tourism is operating a restaurant serving food and beverages to tourists, followed by rural family hotels and local specialty stores. Tourists who dine and stay locally are also potential consumers of local specialties, such as tea or other agricultural products. Moreover, the purchasing behavior is not restricted to the duration of the trip. As stated by respondents, tourists may not visit Hetu a second time, but some of them continue to order local agricultural products from their local hosts after their visit with the aid of e-commerce.

Survey results demonstrate that the majority of respondents, whether or not they participate directly in tourism, support tourism development (96.9%) and hold positive views regarding its future development (87.7%). There is high recognition of positive impacts on living standards (78.5%) and enhancement of local pride (58.5%) among both non tourism and tourism participants. The latter also report a noticeable enhancement in family income (68.9%) and skill

Table 3
Comparison of livelihood assets between tourism participants (TP) and non-tourism participants (NTP).

	Human	Social	Physical	Natural		
	Number of household labor	Village leader in family	Residential house (m2)	Tea Plantation (Mu)	Agricultural Land (Mu)	Distance to scenic area (% within 1 km)
NTP (n = 20)	4.18	0	269.00	3.37	1.58	0%
TP (n = 45)	4.64	6.7%	397.18	4.53	3.39	57.8%
Total (n = 65)	4.51	4.6%	357.74	4.17	2.84	40%
	Economic					
	Tourism income %	Agricultural income %	Migration work %	Local employment %	Annual income per person (RMB)	Annual expense per person (RMB)
NTP (n = 20)	0.0%	29.5%	24.7%	45.8%	26212.5	12633.33
TP (n = 45)	40.0%	20.0%	16.3%	23.7%	30191.01	16074.87
Total (n = 65)	27.7%	22.9%	18.9%	30.5%	28966.85	15015.93

Note: Income from tea plantation is included in agricultural income. Local employment refers to non-tourism related employment.

Table 4
Use of livelihood resources for tourism production.

Barriers for tourism participation		Origin of initial funding for tourism	
Lack of labor	55.5%	Family savings	73.3
Lack of funding	42.3%	Borrow from relatives and friends	31.1%
Location of residence	24.4%	Bank loan	2.2%
Insufficient skills	24.4%	Government subsidies	0%
Insufficient infrastructure	22.2%	Other investments	0%
Lack of residential space	17.7%		
Lack of training	8.9%		

Note: Multiple answers are allowed.

development (48.9%). However, survey and interview results indicate that no improvement was recognized in either education or health care at the community level.

In addition to tourism, three other major economic activities are identified: agriculture, migration for work and local employment (excluding direct tourism employment). The income of interviewees is distributed across these four types of activities in varying proportions. Logically, tourism participants tend to have higher reliance on tourism, which contributes, on average, 40% of their overall annual income. Non-tourism participants exhibit higher dependence on local employment (45.8%). Even though the average annual income per person for tourism participants is higher than that of non-tourism participants, the net income of the two are roughly similar as the expenses of the former are higher than the latter. This is caused by expenses for renovations, enhancing facilities and purchasing tourism related consumptive goods, particularly for *Nongjiale* operation.

Further livelihood portfolio analyses are presented in Table 5. The results indicate that rural residents in the study area are commonly engaged in multiple activities, among which a combination of two (32.3%) or three (35.4%) are most common. For non-tourism participants, tea, other agriculture, migrant work and local employment are equally important. For tourism participants, tourism serves as the core income generator, but is often undertaken in conjunction with other activities such as a tea plantation, other agriculture, local employment or migrant work. Particularly for *Nongjiale* operators close to scenic areas, annual gross income for a family reaches RMB 300,000 (US \$46,500) on average as revealed by interviews with residents and village heads (see Table 6).

The research reveals that synergistic relationships between tourism and traditional work types, such as agriculture and local employment, are possible and occurring (Fig. 3). Residents revealed that tourism participation helps to enhance income from tea or other agricultural products, which is an advantage of the tourism-agriculture/tea combination. Through increasing family income, tourism participation

Table 5
Resident participation in tourism related employment at Hetu Town.

Area of participation	Mode of participation	Participation rate (N = 45)
Food and Beverages	Family operated	Full time 80.0%
Accommodation	Family operated	Full time 51.1%
Retail: local specialties store	Family operated	Full time 42.2%
Scenic Area employment	Employed	Full time 20.0%
		Part time 11.1%
Transportation	Self-employed	Part time 6.7%

Note: Multiple answers are allowed.

enhances residents' capability to engage in additional activities. As explained by one male resident:

“We bought a small vehicle after we operated our family hotel for a couple of years. With the vehicle, we can easily travel around. We can also provide transportation services for our family hotel customers. It is good for our customers and generates extra income for us. Sometimes we also use the vehicle to transport other goods.”

As shown in Fig. 3, tourism has the potential to increase sales of agricultural products, enhance awareness of local agricultural products, and provide employment opportunities for surplus labor in agriculture. In particular, tourists' onsite consumption of agricultural products can lead to offsite purchases in the long term, as the tourism interactions enhance consumer trust in the quality of the agricultural products. At the same time, rural residents provide services to support tourism development, such as rural houses and other facilities to accommodate tourism uses, and agricultural products are consumed by tourists. The rural lifestyle with agricultural practices also serves as a tourism attraction, particularly to urban residents. Essentially, tourism development applies a set of tourism uses on top of the agricultural uses of local resources, contributing additional benefits to the rural community. The synergistic relationship is the basis for further integration of agriculture and tourism in rural areas to enhance the sustainability of rural livelihoods.

It is noteworthy that both agriculture and tourism are seasonal, leading to seasonal variations in the demand for and allocation of labor and other resources to these activities. As a result, the extent of overlap of the agricultural and tourism seasons is a key factor influencing tourism development in rural areas. As demonstrated in Hetu town, the tourism season is mainly during the summer months, which is not the high season for labor inputs in agriculture. Therefore, respondents confirmed that there is a low level of conflict in engaging in both activities simultaneously.

Besides direct tourism employment, the development of tourism induced development of related businesses has triggered the generation of other local employment opportunities, particularly in the area of

Table 6
Livelihood portfolio analysis of survey respondents: comparison between tourism (TP) and non-tourism participants (NTP).

Number of livelihood methods	1	2	3	4	5	6
NTP(N = 20)	20.0%	30.0%	40.0%	10.0%	0.0%	0.0%
TP(N = 45)	0.0%	33.3%	33.3%	24.4%	6.8%	2.2%
Total (N = 65)	6.2%	32.3%	35.4%	20.0%	4.6%	1.5%
Top two income generators	Tourism related	Tee plantation	Other agriculture	Livestock	Migration work	Local employment
NTP(N = 20)	0.0%	40.0%	40.0%	5.0%	35.0%	65.0%
TP(N = 45)	80.0%	26.7%	17.8%	2.2%	28.9%	55.1%
Total (N = 65)	55.4%	30.8%	24.6%	3.0%	30.8%	55.4%

Note: Local employment refers to non-tourism related employment.

construction and renovation with 3 out of 45 tourism participants and 4 out of 20 non-tourism participants indicating family income from such engagements. Village committee interviews also revealed the increase in infrastructure enhancement projects, such as the recent highway entrance project, which generated many jobs for village residents. Higher attention is being paid to environmental conservation with local hires specifically for cleaning and plant rehabilitation at both villages and the scenic sites. Moreover, tourism participants have indicated the need to hire casual labor to help with agricultural practices, such as harvesting and packaging, when family members are fully engaged in tourism at the tourism peak season. As a result, with the development of tourism, local employment opportunities in the study area have increased and will continue to increase.

Through supplying a variety of employment opportunities at the local level, tourism development and its integration with traditional economic activities noticeably reduces the need to migrate for work, which helps to retain former migrant laborers in the villages. Village committee interviews indicated that tourism opportunities decreased the number of migrant workers over the preceding 2 years at both villages. Many couples have chosen to stay in their village, running their own tourism operation while taking care of their children or aged parents, thus enhancing family relations and social stability in the rural areas. As one restaurant operator stated:

“We opened our restaurant last year and the business is good. In the summer, we have tourists every day. Although the income is not as high as when we both worked in the cities, we save our rents. And we can stay at home with our kids. We plan to have 2 more rooms constructed next year, so that we can have 4 beds for tourists to stay and have more income from tourism.”

5.3. Tourism impacts on livelihood sustainability

Changes in rural livelihood sustainability induced by tourism are assessed as illustrated in Fig. 4. The decline of agriculture and the rapid urbanization in China have encouraged the fast development of rural tourism at both national and regional scales. This national trend is reflected at Hetu Town, which sets the context for rural tourism development and its integration with traditional sources of sustenance.

In terms of the transformation processes and structure, with the rapid growth of rural tourism in China, local governments have implemented policies to encourage rural tourism development and resident participation. In the study area, this includes official tourism promotion of the Dabie Mountain area, a regional guideline for *Nongjiale* development, and regional tourism planning. Land acquisition around the scenic sites changed the resource capacities of affected rural residents, but with a limited range of impacts. Public and private partnerships were developed, particularly between the tourism industry and the local community. As revealed in the management interviews, the two scenic sites work closely with nearby villages, mainly through local hiring, local agricultural product purchase, and provision of

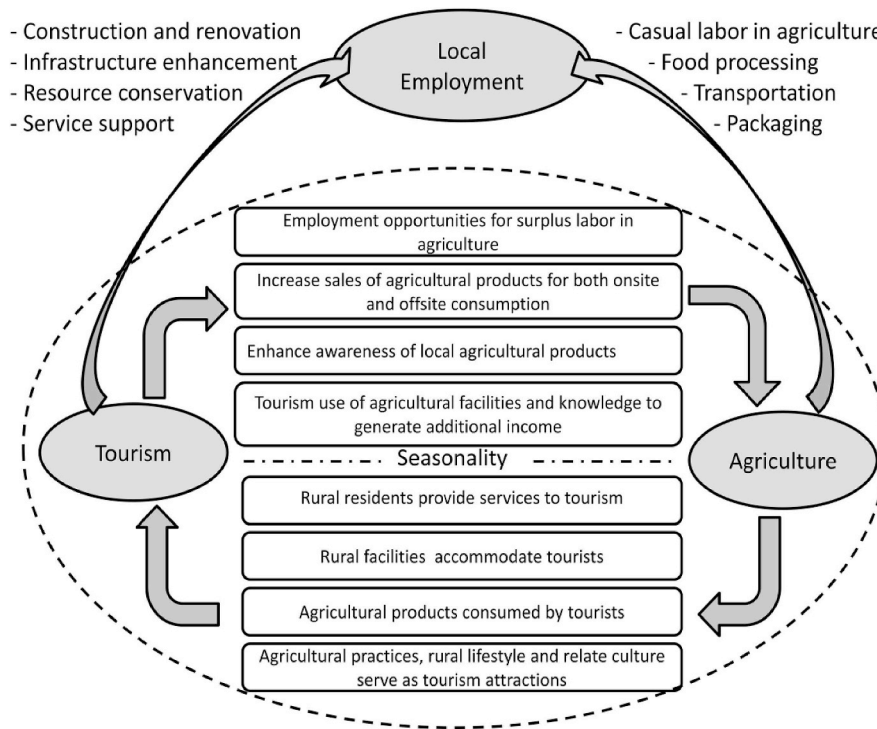


Fig. 3. Synergistic links between tourism, agriculture and local employment.

business opportunities in and near the scenic sites. More tourism related institutional development, such as tourism associations at the village level, is needed as expressed in the village leader interviews, indicating that institutional improvements are required to take full advantage of the development of tourism.

Rural residents choose different livelihood combinations based on their assets and external opportunities. As a means of livelihood portfolio diversification rather than as a substitution for existing activities, tourism is in generally considered to be a useful additional source of household income with potential to increase in the future. Traditional

activities, such as agriculture (including tea plantations) are retained and perceived by both residents and local government as an important base for tourism development. Along with tourism development, local employment opportunities are increased, extending the benefits to non-tourism participants. The synergistic relationships between tourism, agriculture and local employment reduce the need for migration for work and have contributed to the retention of rural labor in villages. However, integration of tourism and agriculture is limited at the current stage, requiring further development if the full potential is to be achieved.

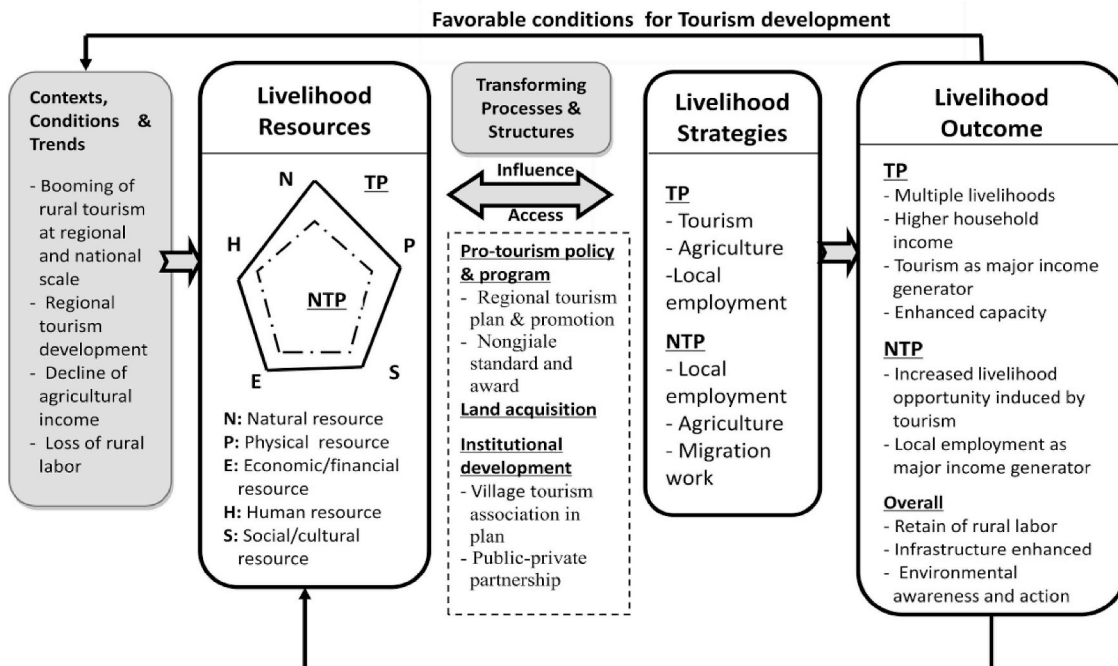


Fig. 4. Livelihood sustainability analysis using the Sustainable Livelihood Framework.

Current livelihood outcomes are generally positive and include enhanced local infrastructure, higher environmental awareness and actions, and higher household income from tourism which, in turn, generate government and public support for further tourism development. Moreover, drawing young people back to the village, and tourism and related employment also help to satisfy family needs, enhance family relations and strengthen social ties in the rural society. These social benefits are important for rural regeneration and sustainable rural development. However, the research reveals that those participating in tourism originally possess more resources, while non-tourism participants are hindered by insufficient human and economic capital. Despite observed positive impacts on non-tourism participants, level of benefits sharing from tourism still differ between tourism and non-tourism participants. Moreover, still a regional destination, Hetu Town is at the early stage of tourism development, and long-term environmental and socio-cultural sustainability are yet to be fully addressed.

Considering impacts on livelihood sustainability, a two dimensional framework consisting of livelihood diversity and livelihood freedom is proposed. As well as supplying tourism related incomes, tourism also triggers development in related areas and has generated new means of support in agriculture and local employment, thereby enriching local livelihood portfolios. With traditional sources of income retained, residents can choose whether or not to participate in tourism based on their assets and personal preferences. As a result, households at Hetu town usually have 2 or 3 activities to support themselves, without total reliance on tourism. With mutually supportive relations between tourism, agriculture and local employment, the development of tourism in the study area becomes an additional rather than an alternative opportunity which enhances livelihood diversity.

From an internal perspective, livelihood freedom draws attention to the extent to which the community or household are equipped with the resources and capacity to choose a livelihood portfolio and move among activity options. It has been found that with the exception of limited negative impacts on natural capital through land acquisition, tourism does not bring negative impacts in the study area to natural and physical capital, but contributes positive economic capital. Moreover, with young people attracted back to the village, the general level of human resources is enhanced at the community level, reflecting enlarged choices at the community level.

However, at the household level, the impact on livelihood freedom varies. Tourism participants, particularly *Nongjiale* rural families who essentially provide B&B services, are primarily residents with more assets located along the main road linking the two scenic sites. They enjoy more freedom in choosing and moving among potential economic strategies. Even though tourism has induced other employment opportunities for non-tourism participants, the range of impacts is limited at present. The majority of rural residents in Hetu cannot enjoy livelihood freedom due to restricted assets which, in the long run, may increase the income gap within the rural community. This potential social risk should not be overlooked.

6. Discussion and conclusion

With a focus on the rural community, this study has applied a restructured sustainable livelihoods framework to examine impacts of tourism on rural livelihood sustainability at Hetu Town, Anhui Province, China. In the research situation, tourism exerts positive influences on the rural community, particularly from economic perspectives. Residents demonstrate a high level of support for tourism development. Impacts on rural culture and environment, as perceived by residents and village officials, are not prominent at the current stage of development. Depending on the synergistic relations between tourism and traditional economic activities as represented by agriculture and local employment, residents in the study area have developed a multi-livelihood strategy, incorporating tourism along with their traditional activities, which has enhanced their livelihood sustainability. However,

the net benefits may not currently be as high as hoped for, particularly because of the high (in the context of Chinese farmers) initial investment to become involved in tourism which has limited level of participation in tourism.

Different aspects of the resources and livelihood strategies of tourism participants and non-participants have been compared. The livelihood outcomes have been assessed and compared with a focus on sustainability through application of the two dimensional framework of livelihood diversity and livelihood freedom. Tourism participants possess more assets when compared with non-participants, particularly due to requirements of initial investments for renovation and purchasing necessary facilities and supplies. As a result, those with low asset levels find it difficult to participate in tourism, thus receiving fewer benefits. Even though tourism is viewed positively and can be a means of livelihood diversification, the level of livelihood freedom varies among community members because those lacking sufficient assets have their options constrained and find it difficult to participate. This situation increases the income gap within the community and may generate social problems in the long run. Since only the better off have the capital to participate, tourism may not reduce poverty. On the contrary, the income gap among rural residents may be enlarged as a result of tourism. However such social risks were not being considered by the local government and were not reflected in local policies.

Hetu Town is still a regional tourism destination with less government intervention in tourism development than in many other more famous destinations in China. Rural residents have taken initiatives in tourism development and the process of economic diversification without much support from the government or intervention from tourism enterprises. Due to the important position of governments in the Chinese political system, the government role in regulating the tourism benefit-sharing process is often emphasized. Policies and other measures from the public sector, i.e. the municipal or county government, may be required to redistribute the share of tourism benefits within the rural community. In particular, assistance may be required to enable those to become involved who do not have sufficient assets to initiate tourism participation to permit them to enhance their sustainability through tourism development. In this way, the growing income gap may be reduced and the potential environmental and social risks can be mitigated. The risk with this strategy is that enterprises may proliferate, increasing competition among operators unless the market can be expanded. This may be less important if tourism remains a supplementary rather than a primary source of income. This risk can be mitigated if local government assists in destination marketing in the interests of all those involved.

Research results also support the mutually supportive relations between tourism and other traditional economic activities, in particular agriculture. Current interactions between agriculture and tourism focus upon the tourism use of agricultural products and the sharing of human resources to serve tourists visiting nearby scenic sites. With a good agricultural base and an attractive natural environment, further integration of tourism and agriculture should be facilitated. Features of agricultural practices and related cultural traditions can be developed as attractions. Participatory activities with interpretations embedded in local agriculture and cultural traditions can be provided to enrich tourists' experiences. Local agricultural products can be further developed which can be viewed, tasted, and made by tourists with the guidance of local residents. Cultural products, such as local artwork or artifacts, could be demonstrated, interpreted and sold to tourists to enhance cultural awareness and economic benefits. Such initiatives should be guided by research into tourists' preferences and the testing of sample offerings to ensure quality control. In such ways, participation opportunities can be generated with requirements for different assets, providing more opportunities for rural residents to step in.

The research supports the relevance of the restructured SLF which incorporates relationships between tourism and the livelihood system, and demonstrates that it can be a useful and practical tool to guide

exploration of the contribution of tourism to rural livelihoods. It is a flexible tool that can be applied in different contexts to further understanding of tourism and community relationships. With a focus on communities, this framework supplies rich information on the role and position of the community in tourism development. In particular, the two dimensional framework, consisting of livelihood diversity and livelihood freedom, has been proposed as a means of assessing livelihood sustainability. It has been shown to be effective in enhancing understanding of the status and changes to sustainability at the community and household levels. It has the potential to inform future studies.

The government role has not been explored in detail in this study although its role is identified in the core of SLF (Fig. 1) under ‘transforming processes and structures’ and it is a key and complex organization, particularly in a country such as China (Su and Wall, 2012). However, possible government initiatives have been elaborated in the discussion. Future studies could take a multi-stakeholder perspective to the research community and its relationships with other stakeholders, including governments at various levels, which may generate additional practical insights to enhance governance processes for community participation in tourism.

As a final reflection, it is pointed out that tourism is not an isolated activity but it interacts with other potential uses of scarce resources such as land, labor, capital and waste assimilation capacity, and competes for individual and government attention. It is natural and appropriate for tourism specialists to extract tourism from the broader system of which it is a part, in order to explore its manifestations in detail. At the same time, if tourism is explored in isolation, understanding may be partial and incomplete. The SLF framework acknowledges that many, especially poor, people sustain themselves from a combination of activities and requires that tourism be considered in a broader context of multiple livelihood options, thereby militating against the oversimplification that might occur by focusing too narrowly on tourism.

Author contribution

Dr. Ming Ming Su and Dr. Geoffrey Wall and Dr. Min Jin collaboratively worked on the theoretical framework and outlined the research design of the study. Ms. Yanan Wang collected data at the study site and did the data analysis. Dr. Ming Ming Su wrote the paper and Dr. Geoffrey Wall revised the paper. Dr. Min Jin provided policy inputs to the paper.

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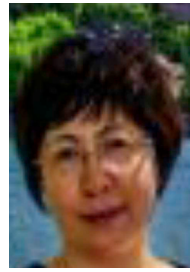
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