Sustainable Rural Development Based on Cultural Heritage
The Case of the Shaxi Valley Rehabilitation Project

In China today, 70% of the population still live in rural and mountainous areas where poverty and economic underdevelopment are widespread. Shaxi Valley, which is located at the foothills of the Himalaya in Yunnan province and remains one of the last strongholds of the Bai minority, is not only an example of an economically impoverished area in Central China but boasts the historic market square of Shaxi, which was selected on the list of the 100 most endangered World Heritage Sites by the World Monument Fonds (WMF) in 2001. The Shaxi Rehabilitation and Development Project focuses on the sustainable development of a rural commune by generating a framework for ecological, economic, and social issues which balance development and conservation in the long run. Tourism will not be the sole vehicle for the viability of the Shaxi Valley communities but only one of four tiers – alongside a well-maintained structural environment, improved infrastructure, and economic diversification. The comprehensive regional planning includes a zoning and transportation plan, a plan for sustainable basic infrastructure, a tourism development plan, a protection and development plan for historic sites, and an investment plan.

1 Introduction
In contrast to the concept of the Chinese countryside, which was at the core of the Great Cultural Revolution, the Chinese authorities currently place much emphasis on the development and transition of urban areas and metropolitan regions in China. Besides the interest of post-reform China in urban areas, there exists a growing body of scholarly literature on the processes and impacts of rapid urbanization and rural China still takes a back seat. The “Shaxi Rehabilitation Project,” located in a remote valley at the foothills of the Himalaya, is situated exactly in such a rural retreat area. Due to its position in an interior region and its high altitude, the valley remained poor and did not develop much in the last 50 years. In addition, it did not prepare itself at all for second industry development. Poverty is thus widespread. On the other hand, slow or even non-existent economic growth resulted in countryside that is still very much in shape. Much of its cultural heritage survived, whereas in other locations it disappeared a long time ago (Rozelle et al., 1997). Not without reason, Sideng Market, the historic Market Place of Shaxi Valley, originally a one way station on the Tea and Horse Caravan Trail between Yunnan and Tibet, has been identified as the last surviving caravanserai-like stopover on this branch of the southern Silk Road. As such, Sideng Market was classified worthy of preservation by the World Monument Fund, which selected it for its list of the 100 most endangered World Monument Sites.
The Shaxi Rehabilitation Project is an alternative planning and development project which aims at illustrating how rural communes and their society and economy can be developed in a sustainable way by taking advantage of specific local potential and assets. The challenge of the Shaxi Rehabilitation project is thus to develop tourism and other industries in the valley, while preserving and rehabilitating its cultural heritage, its ecological qualities, and its social structure.

2 Shaxi’s Great History, Present-day Problems, and Future Challenges

Shaxi Valley is located between the cities of Dali in the South and Lijang in the North, each at approximately two to
three hours travel time. It is inhabited mainly by the Bai, a Sino-Tibetan ethnic group, which once dominated large parts of Yunnan Province. Jianchuan county remains the last stronghold of the Bai minority, with more than 90% of population share. Archeological findings suggest that Shaxi has been continuously inhabited since prehistoric times. Trade relations between this region around Shaxi and central China can be traced as far back as the Shang Dynasty (1600 to 1012 B.C.). Seashells found among remnants hint at an early relation with near coastal regions in southeast Asia. Researchers postulate that the South Silk Road, which crosses Yunnan in a northeast-southwestward direction and passes by Jianchuan and Dali, may have connected China and India since around 100 B.C. At that time an intensive exchange between the Chinese and Indian cultures had started to influence the regions along this trading road and thus also the region around Shaxi.

With the passing of time, the traditional trade routes along the north-south flowing Mekong River and Red River changed functions. Beginning around the sixth century, trade in tea and horses started between Yunnan and Tibet. This trade route extended about 3,500 km, from the tropical south of Yunnan, Xishuangbanna, where tea was cultivated, to Lhasa in Tibet, where horses were bred. Horse caravans were the typical means of transportation. Shaxi was one of the important stopovers on this trade route, the second before the ascent to the Tibetan High Plateau. The Tea and Horse Caravan Trail between Yunnan and Tibet led essentially to a kind of civilian exchange between all ethnic groups involved, including Bais, Chinese, Tibetans, Indians, Yis, Thais and Burmese, among others. This diversity of exchange stands in contrast to the Silk Road, which came under the strict military control of the dominating powers. The apogee of cultural exchange on this route occurred during the Nanzhao (8th to 10th century A.D.) and Dali (10th to 13th century A.D.) periods. The impressive reliefs in portraying the two royal courts in the Shizhong Temple Grottoes in Shibao Mountain in the northwestern part of the Shaxi commune testify to the importance of Shaxi in these extended empires; in the background architectural elements which are still common in the Bai traditional building style can be seen. Stone statues of buddhas, kings, monks, and other dignitaries, as well as animistic symbols, show traces of merging religious and cultural elements (850 to 1179 A.D.), from Buddhist, Chinese, South Asian, and Tibetan to Persian origins. The importance of the trade route may also explain the comparatively high standing of the local vernacular architecture and the high quality of the decoration and construction of many houses in the Shaxi Valley.

With the change of political systems and the introduction of modern transportation in the 1950s, trade on the Tea and Horse Caravan Trail came to a definite end. Shaxi, completely dependent on this trade route, stagnated, and only limited development has taken place in the valley since then. Centered in an isolated valley and surrounded by the picturesque mountains, Shaxi Valley has preserved the once typical combination of cultural, religious, commercial and architectural components of the region to this day. What remains is the structural heritage in the valley and the local indigenous culture. There are about 50 temples in the valley dedicated to a series of different gods. The most important is the above mentioned Shizhong Grotto Temple on Shibaoshan Mountain. The market area of Sideng Village, probably the last existing stopover on the historic Tea and Horse Trade Route, serves as a rare example of historical commercial architecture. It is confined by defensive gates and furnished with a theater stage and many wooden shops. A temple district and a host of sanctuaries are located in the immediate proximity of the historic market. A series of impressive traditional residential houses are also found in the proximity of this market place. Today, the Shaxi commune covers an area of 288 km, has eight villages and approximately 20,000 inhabitants. But due to natural population growth and current restrictive migration policies (which prevent people from moving away from the valley), the population of Shaxi Valley is forecast to increase greatly; at the end of 2020 around 34,000 inhabitants are expected. This anticipated 70% increase in population will strongly increase the land-use for settlements; this development threatens prime quality arable land in the valley plain. The average yearly income lies at approximately US$120.

This is very low, even when compared with Chinese conditions. One of the main economic constraints to the valley has been its location as a dead-end and the lack of mining resources. Agriculture is the primary source of income for 70% of the economically active residents. But as Shaxi is located at about 2,300 meters above sea level – the highest altitude where wet rice can still be cultivated – only one harvest is possible. It is estimated that an additional 15% of the economically active population work in the secondary industries. Construction work accounts for two-thirds of the secondary industrial sector. Stone and wood carving and architectural building craftsmanship in the commune are strong traditional businesses, as they are in other parts of Jianchuan County. Skilled carpenters and wood and stone carvers are contracted for construction and renovation projects throughout the province, including Kunming, the capital of Yunnan, as well as in other parts of the country. The third sector, which includes services and public administration, accounts for about another 15% of the total economically active population. Secondary and tertiary industries currently satisfy only the needs of the resident agricultural population. Despite the natural beauty and the impressive structural heritage, tourism remains only marginally developed and is limited to visits to Shibaoshan Mountain.

Population growth and lack income drives residents more and more to overuse the natural environment. The risk of further destruction of natural potential is increasing (i.e. deforestation, despite legal measures), and with it the risk of natural disasters such as landslides, floods and droughts. Thus, the question at hand is how long the current natural
beauty of the valley, the preservation state of its settlements and the unique cultural identity of its inhabitants can prevail under present conditions. In addition, the Bai culture, with its own language, its distinct festivals, dances and traditions, is nowadays in danger of fading out in favor of the mainstream Han-Chinese culture. The same applies to the Bai building heritage, which is often in desperate shape. However, the provincial Ministry of Culture has recognized the surrounding cultural landscape as deeply influenced by the Bai ethnic minority and intends to suggest it to the UNESCO World Heritage List as a landscape especially in need of protection.

3 Cultural Heritage Preservation and Rural Tourism as a Means of Sustainable Development?

Currently, 730 properties (563 cultural, 144 natural and 23 mixed properties in 125 states) are included on the World Heritage List, which was established under the terms of The Convention Concerning the Protection of the World Cultural and Natural Heritage adopted in November 1972 at the 17th General Conference of UNESCO. As these sites have global value due to their specific historical, scientific, or aesthetic qualities, many of them attract tourists from all over the world. This is in line with the philosophy underlying the convention that designated sites are to be open to visitors. However, tourism initiated by World Heritage Sites generates revenues and draws global attention to these sites and their cultural assets, but at the same time it can pose a severe threat to the environment and to culture, thus conflicting with the goal of protection and conservation of cultural heritage (Drost, 1996). The close links between cultural heritage and tourism inevitably lead to a discussion of sustainable development, which means “development that meets the needs” of the present without compromising the ability of future generations to meet their own needs (WCED, 1987), while taking into consideration ecological, economic as well as social issues. Based on the concept of sustainable development, the World Tourism Organization (WTO) defined the main elements of “sustainable tourism” in 1995 as follows:

- Improvement of the quality of life of the host community.
- Maintenance of the quality of the environment.
- High quality of experience for the visitor (WTO, 1995).

Though Miller (2001) emphasizes that the definition of sustainable tourism is still not satisfying in many areas, it is commonly agreed that the focus of sustainable (tourism) development has to be on long term viability as well as the issues of equity, justice, empowerment and participation (Hall, 1998; Ahn et al., 2002; Miller, 2001). A review of definitions of sustainable tourism is given in Garrod & Fyall (1998, 201).

A sub-category of sustainable tourism is ecotourism, which is currently growing in popularity and is believed to be the fastest growing tourism segment (Campbell, 1999). Ecotourism includes issues of ecotourist responsibility, environmentally friendly destination management, profit linkage to conservation efforts, and the sustainable development of local human populations (Campbell, 1999). A review of ecotourism definitions is given in Blamey (2001). A very strict view of ecotourism is defined by Ziffer (cit. in Hjalager, 1997, 39): “The eco-tourist practices a non-consumptive use of wild-life and natural resources and contributes to the visited area through labour and financial means aimed at directly benefiting the conservation of the site and the economic well-being of the residents. The visit should strengthen the ecotourist’s appreciation of conservation issues in general, and also the specific needs of the locals. Ecotourism also implies a managed approach by the host country or region, which commits itself to establishing and maintaining the sites with the participation of local residents.” According to the literature review by Campbell (1999), community development, community participation, a community approach to decision-making, and small business development are central principles of the ecotourism concept. Concerning economic impacts of ecotourism, Lindberg (2001, 363) summarizes that “several studies have assessed the local employment benefits of ecotourism; not surprisingly, the level of benefits varies widely as a result of differences in the quality of attraction, access, and other factors. In some cases, the number of jobs created will be low, but [especially] in rural economies even a few jobs can make a big difference.”

Despite widespread efforts towards more sustainability of tourism, the impact of tourism on a region’s environmental diversity and fragility is still very far-reaching, and as Ahn et al. (2002, 2) point out, “the enthusiasm for linking sustainable development with tourism may often be tempered by reality.” In scholarly literature, a wide range of potential land-use, conservation, social, and economic priority conflicts are reported, in addition to environmental degradation (Hall, 1998; Ryan, 2002; Russo, 2002). Buckley (2001) points out that even though ecotourism has lower per capita impacts on the environment than traditional forms of tourism, these impacts tend to be concentrated in areas of highest conservation and protection value. According to Buckley (2001), environmental impacts of ecotourism can be reduced by management practices of ecotour operators and landholders/land management agencies, and the environmental education of ecotour clients.

Considering the more general topic of sustainable tourism, Collins (1999) argues that market instruments may not help correct spillover effects caused by the abuse of tourist-carrying capacities before significant environmental degradation occurs. Visitation fees, route guidance and the designation of tourist zones are widely used but have proven ineffective (Collins, 1999). Campbell (1999) even suggests that sustainable tourism development cannot be achieved in the absence of formalized planning or intervention. Ahn et al. (2002) point out that sustainability is an attractive but problematic concept contradicted by the absence of a mandate for the sustainability of some quality of life among regional communities. In
their study on Calhoun County, Texas/USA, Ahn et al. (2002) identified the Limits of the Acceptable Chance (LAC) planning framework suggested by McCool (1994, 1995) as a potential technical planning process tool to help define operational guidelines for sus-

tainable tourism development. According to Collins (1999), the goal of achieving more sustainable tourism de-

velopment has to be met by strategic coordination, planning, and enforce-

ment on a spatially extensive basis, whether community or government led.

Special interest in tourism development has been paid to rural tourism. Rural tourism is seen as a significant source of income for peripheral areas (Hummelbrunner & Miglbauer, 1994), as a means of re-populating rural areas, maintaining and improving public serv-

ices, and as a solution for the protection of both the natural and structural environment (Sharpley, 2002, 234f.). Therefore, it is “considered an effective catalyst of rural socio-economic devel-

opment and regeneration.” (Sharpley, 2002, 233). Hall (1998) suggests that in China, well integrated high quality ru-

ral tourism is able to provide a substantial complement and counterbalance to coastal mass tourism and can generate considerable employment in sectors such as accommodation, food, local crafts, manufacturing, construction, as well as improve the quality of local housing. Besides bolstering the local economy, rural tourism is regarded as a more sustainable tourism approach than conventional tourism (Sharpley, 2002) and a vehicle for sustainable de-

velopment (Hall, 1998). Therefore, in many countries, economic challenges and so-

cial destabilization caused by the de-

cline of traditional agrarian industries and falling employment and income lev-

els in rural and mountainous areas are addressed by rural tourism development programs. As Hall (1998, 428) notes concerning rural tourism, “attractive landscapes or particular elements of the natural environment can complement and provide the context for cultural at-

tractions.” Prospects for regional devel-

opment in peripheral areas through ex-

ploitation of the assets offered by cul-

tural heritage and an untouched natural environment are demonstrated by exam-

ples from Europe, the Americas, and Asia (Hall, 1998; Sharpley, 2002; Campbell, 1999; Tosun, 2001).

4 The Shaxi Rehabilitation Project

4.1 Shaxi’s Main Assets for Future Development

Besides the already frequented Shibao-

shan Mountain, there are many other historical sites and natural spots, which indeed would be worth visiting. How-

ever, most of them are still unknown to the public and would need, due to their desperate state of conservation, urgent care and restoration.

The natural landscape of Shaxi Valley is well-preserved up to now. The land-

scape is idyllic, the villages’ structures are still completely built in the distinctive Bai style. The rice terraces and the man-

made natural environment are also fully intact, and forest grow on the mountain slopes. The remote location surrounded by mountainous forests at high altitude is an ideal location for the production of organic agricultural products. Rare cash crops (mushrooms and ginseng, among others) also grow in abundance, but are exported as raw materials and do not generate additional income. Cash crops and organic food production already have the potential to improve the local economic environment. Furthermore, the development and export of existing sec-

ond industry skills, e.g., wood and building craftsmanship, and building conservation, presents a further pro-

spect for development. In general, the landscape, nature and man-made envi-

ronment is enticing for visitors, but so far little or no tourism infrastructure exists.

The Bai culture is still alive – more than 90% of the population speak the local Bai language – and can be expe-

rienced by visitors as can the culture and traditions of the other minorities such as the Yi. Festivals, music and dance events are frequent and usually colorful. Besides this, the local popula-

tion is very adaptable and has many skills, and they just lack respective mar-

kets to flourish in. Thus, if circumstan-

ces change, the expected population growth could also represent local poten-

tial. In this sense, carefully guided settle-

ment growth and conscious preserva-

tion and development of historic sites and settlement cores could only add to the valley’s attractiveness.

There are obvious potential synergies between population, tourism, and pri-

mary and secondary industry develop-

ment, which need to be carefully tapped:

- The population increase may be con-

verted into an opportunity.

- The high altitude location, which is unfavorable for agrarian production, may change into an asset for tourism de-

velopment.

- The protection of cultural and natural heritage may become a development prospect.

- Tourism may become the main motor of social and economic development.

- Other social and economic opportun-

ities may add to this.

One more main development asset is the strong commitment from the local side and the strong desire to develop the valley in a positive way. When the historic market square of Shaxi was se-

lected for the list of the 100 most en-
dangered World Heritage Sites by the World Monument Fonds (WMF), the lo-
cal government mobilized around 200 journalists and 11 TV stations to attend the press conference. It has also already issued construction regulations to pro-

ect the valley.

By far the main economic potential for the future lies in tourism. While Sideng Village did not have any tourists before the listing of Shaxi Market Square by WMF in November 2001, this has al-

ready changed. Around 10,000 tourists visited it so far during 2001. In the last decade, two main tourism hubs have de-

veloped with about three hours reach from Shaxi: the cities of Dali and Lijiang. Dali generates about 5.5 million tourists each year, and Lijiang around 3.5 mil-

lion (2001). These hubs are increas-
ingly overcrowded and tourism experts are seeking alternative locations. On the other hand, if only 1 to 5% of these tourists could be convinced to visit Shaxi, this would have a considerable
impact on the local economy. For this, however, the infrastructure, which is currently lacking, needs to be prepared.

The main challenges and potentials enumerated show clearly that in the current situation much can be lost or won in Shaxi Valley. In the medium term, if not carefully planned and guided, the nearby exponentially increasing tourism in the region could even become a threat to the natural and architectural heritage of the valley, especially if Shaxi were to deal with its dead-end geographic location by constructing a bypass road. Therefore, effective protection measures should be put in place, and future settlement growth needs to be guided by comprehensive regional planning. Otherwise, Shaxi risks losing its precious natural and cultural assets in the medium term.

4.2 Planning Objectives of the Shaxi Rehabilitation Project

As indicated by academic literature as well as preceding surveys by the authors in Shaxi, an isolated restoration and tourism project for the Sideng Market in the Shaxi Valley will not be sufficient to preserve the heritage site. Moreover, an integrated and comprehensive planning project, focused on the preservation of the site and the improvement of the economic and ecological situation in the valley appear to be necessary if the goal is to reach a sustainable and enduring preservation and development in Shaxi Valley. Otherwise, the restored buildings would fall into decay again some years after the end of the program and severe degradation of the natural assets would occur. Therefore, the four main objectives of the Shaxi Rehabilitation and Development Project are as follows:

- Enable a sustainable rehabilitation and development of the Shaxi Valley. This shall be done by tapping the potentials of the valley (environmental and cultural preservation, and the development of tourism and other economic growth prospects.)
- Enable the development of Sideng Village as the central location of the Shaxi commune (it being the core part of future settlement of the valley), and the preservation of the historic part of Sideng, in addition to the other historical assets of Shaxi Valley.
- Ensure the restoration and re-integration of the historic marketplace of Sideng Village.
- Set a model for sustainable rural development in the culturally rich area of the Himalayan foothills. This model is urgently needed, as many other similar areas are on the verge of being destroyed. Setting an example of how rural sustainable development can take place in such a mountainous region is therefore one of the main objectives.

4.3 A Sustainable Vision for Shaxi Valley

How the future of Shaxi Valley could look is described in the following development vision.

On entering and looking over Shaxi Valley, the visitor is stunned by the visual appearance of the valley as a whole. It appears as an idyllic island in a sea of dark-green, forest-covered mountains. The rice-field terraces of the valley-plains stand out, shiny-green and organically cultivated, while compactly built villages are regularly distributed over the whole plain. The tile-covered roofs of the traditional courtyard houses glitter in the morning sun. On arrival in central Sideng Village, we see a market place for weekly markets which lies between the well-organized village center and the well-preserved historic village. People dressed in styles according to their ethnic group stand around, talk and exchange goods. This traditional image, however, hides modern aspects. The historic village, the old market square, and temple district are well restored, but adapted in function to contemporary needs. They add to the local identity, of which the residents are proud. Sideng Village has become the focal point of the valley. Here, the non-agricultural population, the services and secondary industries are concentrated...
on the natural hill of Sideng, where the agricultural land is only of secondary quality. The sanitation system is built so as to protect bodies of water, and its output can be used as fertilizer for local organic food production. Riverside areas and biotopes close to the town are protected and made accessible, enticing visitors to undertake short and romantic evening trips. A network of walkways covers the valley and mountains and is used by both inhabitants and tourists. They can travel safely by bike, by horse, or on foot by separate pathways. The original tea and horse caravan trails are restored and can be experienced again in their original character. Several hotels are located around historical Sideng Village and at distinct locations in the Shaxi Valley. They incorporate and reinterpret the distinct Bai building style and offer overnight stays with a distinctive note to the visitors. A series of restaurants offer the visitor a taste of local food. The number of visitors is in balance with the local population and local incomes are improved leading to a decent lifestyle. In addition, nature is in balance with the economic development, and natural potentials are used and safeguarded simultaneously. Briefly stated, the village is both attractive to visit and to dwell in.

4.4 Comprehensive Planning as a Means for Sustainable (Tourism) Development

To ensure a healthy environment and a sound economic base, a sustainability-oriented comprehensive development plan for Shaxi Commune will be established. It includes:

- A comprehensive zoning and transportation plan. A novelty for China, this plan addresses the whole area of the commune and outlines settlement core and development zones, nature priority and protection zones, and other areas of common interest.
- A plan for the implementation of sustainable basic infrastructure. Currently, specialists from the Swiss Federal Institute for Environmental Science and Technology (EAWAG), a Swiss Federal Research Institute, are at work to establish a sustainable sanitation system for historic Sideng Village. It includes both liquid and solid waste. Its main advantages are that a (very expensive) sewerage system will not be required and that human and animal waste will be used for soil fertilization, increasing at the same time the capacities of organic food production. Sideng Village will be the pilot project for other villages in the Shaxi Valley. In addition solid waste, water supply, drainage and grey water are addressed.

- A tourism development plan. Tourist itineraries, sites of interest to tourists and potential locations for hotels and other related infrastructure are outlined.
- A protection and development plan for Shaxi’s historic sites. This plan caters for preservation, adequate restoration and re-linking of the historical sites in the valley.

- Creating sustainable investment opportunities. In line with the development of the comprehensive development plan, a phased and adapted investment plan for the commune will be worked out. Its goal is to allow the community to apply for infrastructure funding to the provincial and national authorities and to offer a base for private investments. With this funding and other investments, which are already partially promised, the development vision for Shaxi Valley will be realized.

4.5 Rehabilitation and Development of Historic Sideng Village as the Core Part of Sustainable Tourist Development in Shaxi Valley

The core of the future population and economic development of Shaxi Valley is Sideng. Meanwhile, the historic part of Sideng Village and its immediate surroundings are clearly the core areas for future tourism development. To assure that this development will be sustainable and not threaten the historic fabric and sensitive wetland along the river in front of the village, detailed preservation plans and regulations, as well as urban and landscape design plans have been worked out. These provide for protection and development areas and a framework for development of new tourism-related structures close to the historic village as well as a scheme for replacement of collapsed buildings inside their old fabric.

Meanwhile, the historic market place, with its theater stage, the Sideng Temple District, which dates back to the Ming Dynasty (1415 AD), and the other historically most important houses in the village have been carefully surveyed. Future functions for reuse of the partially abandoned buildings around the market square have been defined. Detailed restoration and rehabilitation plans are being drawn up. Adaptations outside the historic village have been carried out in a manner that makes the historic market square once again an attractive place to host a part of the local weekly market and cultural or tourism-related functions have been assigned to some of the abandoned buildings.

Every effort is being made to ensure that the historic Shaxi Market Square again becomes an attractive meeting place for local residents as well as for visitors from abroad.

5 Conclusion

Although the Shaxi Rehabilitation Project adapts the principle ideas of sustainable tourism development, rural tourism, and ecotourism, its overall philosophy reaches far beyond the limits of tourism development. The comprehensive planning and development approach used in the Shaxi Rehabilitation Project focuses on the sustainable development of a rural community by generating a framework for ecological, economic, and social issues which balance development and conservation in the long run. Tourism will not be the sole vehicle for the viability of the Shaxi Valley communities but only one of four tiers alongside “a well-maintained structural environment, improved infrastructure, and a diversified economy.” The overall findings of the Shaxi Rehabilitation Project with regard to the principle of sustainable development are that sustainable tourism development in remote rural areas cannot be achieved without focusing on sustainable community development and establishing comprehensive planning frameworks and guidelines.
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