Ecotourism in China: Endogenous paradigms for SW China's indigenous minority peoples

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http://www.geocities.com/john_f_studley/ecotours.htm May 1999

1.0 Introduction

Few countries offer the tourist potential of the Peoples Republic of China, with its unique natural resources, scenic variety, ethnic diversity & cultural heritage as the world's oldest civilization. Although international tourism only began in 1978, there has been a dramatic increase in the number of foreign visitors, which has similar parallels in the domestic sector. Concerns, however, are already being expressed about the nation's environmental wellbeing and the threats posed by tourism to endangered species, sensitive habitats, unique abiotic features & indigenous ethnic peoples (Liu Jihan & R Dowling 1991)

Many definitions of "ecotourism" have emerged since the term was coined in 1987 (Lash 1997) and I am not sure of its perceptual meaning in Chinese. "Sheng tai nu You" roughly translates as "Tourism that is not based on exploiting or harming the local environment, ecology or society" (Luo Xiao pers comm 5/99). Rather like "sustainable development" it appears to lend itself to considerable ambiguity, suffers from the lack of a clear theoretical framework, and has a tendency to mean all things to all peoples (McLaren 1998, Tisdell 1996, Adams 1995, Lele 1991, Conroy 1988, Peet & Watts 1996). Although the terminology is new there have seemingly been systems or areas which have fulfilled the functions associated with the term, for much of China's 5000 years of history. From the earliest times (The Shang Dynasty 1766 BC- 1122 BC) there is evidence of both a conservation ethic and an understanding of environmental processes. Environmental consciousness used to be reinforced not only by rulers but through Daoism, Confucianism & Buddhism, but today there is a discrepancy between attitude & behaviour (Edmonds 1994, Needham 1956 1986, Schafer 1962, Yi-Fu Tuan 1968 1969, Smil 1984, Qu & Li 1994, Newby & Hong Tao 1991).

When I discussed the potential of "ecotourism" with forestry officials in 1998, there was familiarity with the term at National and Provincial level, but I had to explain the term at

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Prefectural & County levels. "Ecotourism" appeared in the English literature on China around 1991 (Liu Jihan & Ross Dowling, FL Newby & Hong Tao) but it has taken longer to reach institutional level.

China was one of the first signatories of the World Conservation Strategy (IUCN 1980), and the importance of "nature-based tourism" was recognised in China: Biodiversity Conservation Action Plan (NEPA 1994). The State Forestry Bureau sent delegates to an FAO Seminar on "Ecotourism for Forest Conservation and Community Development" in Chiang Mai in 1997. Subsequently "Ecotourism Interest Groups" were established at Provincial Forestry level (Ling Lin pers comm 1998), this year (1999) has been designated "Chinese Year of Ecotourism", the Chinese National Tourism Administration (CNTA) plans to develop forest tourism as a key project (China Daily 24/10/98, 23/1/99 & 22/4/99) and China's State Forest Bureau plans to expand its forest parks from 874 (7.48 m ha) to 2,000 parks by 2010 (19m ha). Although these measures appear to be steps in the right direction there are already signs that the conventional "forest park" paradigm is not working as envisaged, and difficulties have been experienced with unplanned development, poor integration between park agencies, neglect & overuse of environmental resources, pollution, over development or under development, poor quality or counterfeit souvenirs and resource damage during park development (Zhang 1989 Liu Jihan & Dowling 1991)

SW China is especially renowned for the uniqueness and variety of its flora, fauna and indigenous ethnic peoples. In some locations the untouched ecosystems are among the most diverse living assemblies on earth (Smil 1984). Although its recorded history is not as well known as Han China, there is evidence that the people have lived sustainably with their fragile world for 2,000 years, and still exhibit a conservation ethic deeply embedded both in historic government Tsatsig¹ and in their animistic and Tibetan Buddhist traditions (Bjork 1993, Tenzin P Atisha 1996, Chen Liang 12/9/98).

Since 1950 the world has witnessed the negative impact of modernity both on SW China's environment, and on the socio-cultural systems of its indigenous peoples. Modernity rather than enhancing their well being is seemingly destroying their environment and indigenous culture and robbing them of their means of life.

In 1997 China announced plans for reforestation, conservation and forest tourism, but the serious Yangtze floods of 1998 caused the government to impose a complete felling ban on the forests of SW China and to close 9m ha of grazing land, for reforestation. Although China, seemingly had to halt the planned "mining" of its second forest production base, the phased introduction of a suite of measures, including, conservation, reforestation, agroforestry and

ecotourism would have had less of a negative socio-economic impact. Almost overnight nearly 1 million Tibetans, involved in the logging industry seemingly lost their main means of income & livelihood, and local government, its main source of funds for education, medical services & infrastructure projects. The felling bans, on their own clearly are not working, and within days of them being instituted it was reported that Hongyuan County in Aba Prefecture (Sichuan Province) was flouting them (Studley 1999a & b) and subsequently 37 cases of illegal logging were reported in Sichuan Province (China Daily 4/5/99).

Both ecotourism and agro-forestry have the potential to support nature conservation, community development, & indigenous cultural identity & rights, but there are dangers of environmental destruction, elite capture, inappropriate tourist infrastructure, and of further "colonisation", commodification, marginalising and alienating of its indigenous peoples (IUCN 1980, McLaren 1998, Yiping Li 1998). There is already evidence that the conventional models of "forest tourism" adopted are having a negative socio-environmental impact in the Wolong Panda Reserve, Jiuzhaigou Nature Reserve & Hailougou Glacier Park (Wang X et al 1989, Schaller G 1998).

Until Jan 1999 (Ang Luo pers comm) large areas of SW China, mainly peopled by indigenous Tibetan peoples were "closed" to westerners without an "alien permit", and even before "Liberation" (The Sino-Tibetan War of Oct 1950) there was restricted access to foreigners. Under the aegis of "Year of Ecotourism" CNTA is promoting a series of new tours to three areas of Tibet. Given the challenges presented to China by its parks and reserves, and by tourism in Nepal & Ladakh there are very real dangers that if ecotourism is not carefully planned they will be repeated (Norberg-Hodge 1992, Stevens 1997, China Daily 23/1/99)

Given the seasonal nature of tourism, in SW China, it is unlikely on its own to provide sufficient income to support nature conservation and community development and one suggestion is to combine it with agro-forestry. Very little study has been done to date on the impact of ecotourism, agro-forestry, indigenous environmental knowledge or the development of a suitable endogenous paradigm (Wu Ning pers comm 4/99). The aim of this paper is to review the history of tourism, & conservation, in China, and examine its legacy, potential, dangers, & challenges and to suggest the development of a sustainable endogenous paradigm.

2.0 Historical Background

Throughout China's long history there is evidence of a long legacy of "tourism", conservation. and of "nature reserves".

If we include heritage travel, pilgrimage and festivals as "tourism" it is possible to chart its history over four millennia covering the reigns of the dynastic emperors from 2000 BC to AD 1900 (Overmyer 1986, Li & Sofield 1994). It virtually disappeared during the twentieth century during the Kuomintang regime and Mao Zedong's regime. Mao suppressed culture, habits and tourism, and with the exception of the 800-year-old Xiaolan Chrysanthemum festival, virtually the only form of "tourism" allowed was its use as a propaganda tool (Sofield & Li 1998).

It was only after the "opening & reform policies" of Deng Xiaoping in 1978 that trends were reversed and tourism allowed (Meisner 1986). Tourism was endorsed because of its capacity to contribute to modernisation and because of its perceived contribution to national unity. However, contradictions remain between the competing ideologies of socialism, modernisation, globalization & traditional culture, as China moves towards the year 2000. Although China has embraced the "socialist market economy", its form remains embedded in ancient heritage. The resolution of the tension between its traditional roots and contemporary commoditisation is essential in Swain's view (1989) to develop sustainable tourism.

Chinese civilization realised the need to protect natural resources, especially flora and fauna long before the birth of Christ and the importance of tree planting in soil erosion control and water conservation. Many passages in Chinese classical literature refers to the ruler's duty to safeguard the environment. We read in Shi Ji, during the Shang dynasty (1766BC-1122BC) that there was awareness of wildlife preservation, and in the Guoyu of Duke Xuan's (608BC - 590 BC) need to learn the environmental lessons of the past. This suggests that rules about environmental protection may predate the Zhou period (1122BC-221BC). From the Wen Tao it is evident that the connection between deforestation and soil erosion was understood as early as the Warring States era (403-221 BC) and from the early Chinese philosopher Mencius (372 BC- 289 BC) the dangers of over killing wild animals. In the Chou Li a work compiled in the third century BC two classes of "conservation official" are recognized, a Shan-yu, inspector of mountains and a Lin-heng, inspector of forests who were charged with the care and conservation of mountains and forests. By the Song period (AD 960-1275) the concept of an ecological balance in nature was recognised as was the consequences of filling in lakes to create extra crop land. From the fourteenth century onwards population pressure was such that environmental protection was often of secondary importance and became increasingly an ideal (Edmonds 1994Yi-Fu Tuan 1968)

The earliest examples of "reserves" or "parks" in China belonged to its rulers, and although their purpose was as gardens, temples or for hunting they indirectly served as protected or semi-protected environments. Parks and reserves can be found in imperial records from the Qin (221 BC- 207 BC) and Han dynasties (206 BC-220AD) down to the last dynasty, the Qing dynasty (1644-1912). Sacred mountains and forests and often extensive temple lands also helped to preserve species which might have disappeared (eg. Metasequoia glyptostroboides, Ginkgo biloba, Carpinus putoensis). China first nature reserve, the Dinghu Mountain Nature Reserve (Guangdong Province), was established in 1956, but it was really only after 1979 that substantial development of nature reserves began, by which time it was probably too late for many animals. The ecological approach to environmental problems did not really begin until after 1983 when a wildlife protection bureau was established, and the China Wildlife Conservation Association was founded (Fu 1989, Liu 1990). By 1991 China had established 708 nature reserves covering 5.6 % of China's national territory (Jiang Zhai 1993, Edmonds 1994)

3.0 China's Environment

The Peoples Republic of China is the third largest country on earth and has the largest population (1.1 billion in 1991). Its huge population together with enormous pollution generated by a rapidly industrialising country has created an increasing awareness for the need for nature conservation and environmental protection

3.1 Natural Resources

China has an abundance of natural resources many of which are either partly or wholly utilized as tourist attractions. The main natural tourist attractions are its famous mountains, lakes, rivers, caves and nature reserves. The most famous mountains are the five sacred mountains (Taishan, Heng, Hua, Hen & Song) and the five Buddhist mountains (Emei, Wutai, Jihua, Kailash¹ & Putuo). There are numerous rivers and lakes in China, the most famous include the Yangtze as it passes through the "Three Gorges", and the Li River as it passes Guilin. The most scenic of China's lakes are the West Lake in Hangzhou, Taihu in Jiangsu, Dianchi in Kunming, Tianchi in the Tianshan mountains & the Jingpo Lake in Heilongjiang. The most famous limestone caves include Seven-Star Cave & Reed-Flute cave in Guilin, Shanjuan Cavern & Linggu Cavern in Yixing, Yaolin Fairyland in Tonglu and the Water cave in Benxi. China's nature reserves include the Changbai Mountain Reserve in Jilin, the Shennong reserve in Hubei, the Wolong reserve in Sichuan, the Wuyi reserve in Fujian and the Xishuangbanna reserve in Yunnan

3.2 Biotic Resources

China has the greatest diversity of wildlife in the world. There are more than 2,000 species of terrestrial vertebrates, more than 10 percent of the world's total. There are 1,189 known species of birds, nearly 500 animal species, more than 210 species of amphibians and 320 species of reptiles. Among the wild animals, there are many rare species found only in China. These include the giant panda, golden monkey, white-lipped deer, takin, Chinese river dolphin and Chinese alligator. China has 7,000 species of woody plants, of which 2,800 are arbors. The metasequoia, China cypress, cathaya, silver fir, China fir, golden larch, Taiwan flousiana, Fujian cypress, and eucommia are trees found only in China.

3.3 Ethnic Resources

Chinese historical records have since earliest times made reference to peoples considered different from the "Han" Chinese. Over eight thousand separate groups have been identified over three thousand years. Historically the dominant Han peoples referred to them as the :- Man, Yi, Jung & Ti, the "barbarians of the four directions", although there is no evidence to suggest that they were culturally or technologically inferior. Today there are 56 recognized

1 Kailash is also sacred to Hinduism, Jainism & Bonpo

nationalities in China, of which the Han are numerically the largest with 10442 million (1990). The 55 "national minorities" comprise 91.2 million, or 8.04% of the population. The diversity of groups is matched by an equally diverse spectrum of languages and social relations. 23 ethnic groups now have a written language, some based on Sanskrit, some on the Latin language, and some on Chinese. Up to 60% of China's ethnic minorities inhabit the outlying areas of China, and many live in remote forest and mountain territories of SW China, areas of unparalleled biodiversity, where until recently they have lived sustainably with their world. Although their knowledge systems have been negatively impacted by modernity, many of them still exhibit a very strong conservation ethic embedded in their beliefs. (Heberer 1989, Dreyer 1976, Long Chun Lin nd, Long Chun Lin & Chen Sanyang 1994, Gao Lishi 1992, Pei Shengji nd)

4.0 Tourism

Since 1978 when China finally opened its doors to international tourists, there has been a dramatic increase in the number of foreign visitors. In 1990, there were in excess of 27 million overseas visitors of whom over 4 million were classified as international. The top five countries of origin were Japan, USA, UK, Australia and the Phillippines. In !988 there was over 4 million international visitors on organised tours which represented a six-fold increase over the previous decade. The Tiananmen Square incident of June 1989, however resulted in a slump, and 65% fewer tourists arrived than in the previous year, but in 1990, partly due to the Asian Games, Beijing had over 1 million visitors (up 53% over 1989). During the Eighth Five year plan (1991-1995) tourism development formed part of a major strategy and during 1992 there was a massive tourist campaign.

In 1995 over 46 million tourists entered China, an increase of 19 percent over the previous year and in 1997, which was "Visit China Year", CNTA re-packaged 35 of its best products and 16 routes. These include a Great Wall Tour, Yellow River Tour, Silk Road, South West Ethnic Tour, Muslim Tour, Holiday Resort Tour and the new Folklore Tour through Central China. Of note was the increase in "ethnic" tours. During the summer of 1997 of the fourteen tours arranged by CNTA six were of an ethnic nature. Local authorities in ethnic minorities are being encouraged to restore traditional buildings and temples (Li 1991 Kou 1990, Dai 1990, Liu 1991.)

4.1 Tourism infrastructure

Along with the development of Tourism, China has attached great importance to the construction of tourist facilities, and by 1991 had 2,000 hotels, which had risen to 3,000 by 1996. In 1989 it purchased 45 jumbo jets which increased capacity by 30% and enabled it to fly 370 international & domestic air routes, and by 1996 this had expanded to 727.

4.2 Ecotourism

This Year (1999) is "Chinese Year of Forest Tourism" and China's State Forest Bureau announced plans to expand its forest parks from 874 (7.48 m ha) to 2,000 parks by 2010 (19m ha). Every attempt is being made to tap into what China considers to be "rich biological and cultural resources of rare wealth to mankind" (Tao 1990). Even though China does not have

extensive forests remaining, there are a relatively large number of unusually spectacular forest parks that often include ancient cultural and sacred resources as well as unique mountains and rivers.

5.0 Parks & Reserves

Parks in China are divided into two basic systems: a national system of reserves, owned by the State and a civil park system.

Chinas reserves can be categorised into various types (Newby & Hong Tao 1991, Liu & Dowling 1991, Edmonds 1994). These include reserves for: scientific research, scenic nature, flora & fauna protection, natural resource management, landform protection, sacred reserves & archeological reserves.

Many of China's larger national nature reserves can be categorized as scientific research reserves, and they tend to be showcase reserves located in E.China. Wolong Panda Reserve in Sichuan would fit this category.

The scenic reserves ("forest parks") are used primarily for tourism (but also for research) and are equivalent to "national parks". Jiuzhaigou (Sichuan) with its hot springs and tourist hotels fits this category.

Flora & Fauna ("nature") reserves have been established mainly to help restore damaged ecosystems or even to protect one species of flora (eg Haloxylon ammodendron at Ganjia Lake Reserve) and include areas of primary forest and semi-natural ecotypes (Richardson 1990)

Natural resource management reserves are conservation areas which are allowed to be exploited within limits. These include the grasslands of SW China and forested areas of Eastern China.

Landform reserves are characterized by special geological or geomorphic features, and they have high tourist value. The Shilin (Stone Forest) nature reserve, near Kunming, with its unusual kast features is one example.

Sacred forests & mountains do not appear under many Chinese classifications of "reserves or parks", but they represent not only places of pilgrimage and tourism, but havens for wildlife conservation. They appear to be as important to Han Chinese, who sometimes associate them with dragon culture, as to the minority peoples. (Barnes & Dashun 1996, Naquin & Chuen-Fang Yue 1997, Bernbaum 1990, 1996, 1997, Chavannes 1910, Blondeau 1996, Diemberger 1992, Long Chun-Lin & Chen Sanyang 1994, Long Chun-Lin nd, Karmay 1996). Sacred mountains appear to serve several functions; as power places that enshrine political authority (Mount Tai Shan), as a cosmic axis (Mount Kailash), as the focus of communal identity (Kharta area of S.Tibet), as centres of mandalas, as sources of blessing (Tai Shan¹), as places for

¹ Elderly women climb Tai Shan to make offerings to have grandchildren if their daughters or daughters-in-law are infertile (Bernbaum 1990)

Shamans to re-charge themselves with power, and as places of spiritual revelation (Mount Wutai Shan²). The peoples of SW China (eg the Dai & Tibetans) believe that the flora, fauna and rivers associated with sacred mountains are companions of the divinities that dwell there and are under their special protection (Long Chun-Lin & Chen Sanyang 1994, Stevens 1993 Pei 1993, Studley Evans & Steendam de Vries 1995)

Archeological reserves seemingly represent a category yet to be developed. Portions of the Great Wall and the Qin dynasty tombs near Xian are two potential sites for this type of reserve (Edmonds 1994).

Most of China's nature reserves do not fit neatly into one category, and there is considerable overlap. Many of them are, in fact, multifunctional which leads to a conflict of interest.

6.0 Conservation

Although China has experienced massive deforestation since 1950, and 3,000 tree species have been seriously reduced in number, there appear to be no examples of tree species disappearing in the last 30 years. What is more worrying, thought is environmental degradation and loss of habitat resulting from deforestation. There is a good deal of specific information on the extinction or endangered state of numerous mammals and birds. Since 1949 ten wild mammal species have become extinct (including Equus przewalskii & Saiga tatarica) and 20 are endangered. Most of the endangered species are in SW China where the countries richest forests have been indiscriminately cut causing drastic declines of mammal and bird counts.(Edmonds 1994, Ma & Chang 1980)

Encouraging progress in nature conservation dates only from the latter half of the 1970's. As of 1980 China had 72 nature reserves, with the oldest dating back to the late 1950's. A few more were added in the early 1960's, 34 were set up between 1976 and 1983 and by 1994 China had established 763 nature reserves covering 66.18 million hectares (Liu 1991, Smil 1984). In addition the government has established breeding centres for more than 60 animal species under threat of extinction such as the Siberian Tiger, Pere David's deer and the Giant Panda, and for plants as well (Edmonds 1994)

Management of wildlife began in China with the protection of the giant panda, the golden monkey (Rhinopithecus roxellanae) and a few other rare animals in 1959. Prior to 1980 wild animals were viewed from a utilitarian view, and if their economic value was not apparent

² Buddhist pilgrims expect to see manifestations of Manjushri, the Bodhisatva of Wisdom, who may appear in the form of a dragon, a prince seated on a lion, or as a ball of fire (Bernbaum 1996)

seemingly elimination was best (Greer & Doughty 1976). From 1989 379 vertebrate species were protected (in two classes of protection) and 389 species of plant (in three classes). Class one include endemic, rare, precious or threatened species. Class two include species which are declining or whose geographical distribution is becoming restricted. Class three includes plant species of economic importance for which harvesting is to be limited (Zhu J 1989, Edmonds 1994)

7.0 SW China

SW China is deeply dissected by four of Asias largest rivers (Bramaputra, Salween, Mekong and Yangtze), which flow in a SE course through deep limestone and sandstone gorges. Elevation ranges from 2000m to more than 7000 m and the area is dominated in the east by Minyak Gangkar¹ (7590m). The steep slopes are mostly covered by coniferous forest, and the region contains China's largest forest resource. Nowadays this vast region, known to the indigenous Tibetan people as Kham² is divided for political and historical reasons between four Chinese provinces and comprises 47 counties³. The region is characterised by its unique Tibetan culture, customs and buildings and rich biodiversity. There are still believed to be over 1500 species of higher plant, more than 90 mammal species, more than 350 bird species, and more than 25 reptile and amphibian species. Of note are 52 conifer species, 10 pheasant species and 330 mushroom species. (Liu 1985a 1985b, Li 1993, Gyurme Dorje 1996, Schaller 1998a)

The forests of SW China, were among the most extensive areas of forest cover in the whole of China, and included the forests of SE Tibet AR, Western Sichuan, Northern Yunnan, South West Gansu, and SE Qinghai. Since 1950, when they were designated China's "second timber production base" and macro-scale timber production enterprises were established all these areas have experienced indiscriminate felling (Richardson 1990, Li 1993). The destruction was caused by "planned" commercial timber extraction, and not through population pressure (Li & Zhang 1985, Smil 1984, Winkler 1998). The forests of SW China have never been managed on a sustainable basis, and most of them lack a management plan or any form of monitoring (Richardson 1990). Timber is not only required for China's booming economy, but it is often the most important source of cash revenue for local administrations, enabling them to fund education health & infrastructure (Zhao 1992). State forest enterprises are required to sell a minimum timber quota which is as much as 3 times the sustainable yield, at a price that is

¹ Chinese (Pinyin): Gongga Shan

^{2 &}quot;Four Rivers & six mountain ranges"

³ According to Gyurrme Dorje (9996) Kham includes:-Nyangtri District (3) Nakchu District (7) & Chamdo District (11) in Tibet Autonomous Region, Dechen TAP (3) in Yunnan Province, Kandze TAP (16) & Mili TAC in Sichuan Province, & Yushu TAP (6) in Qinghai Province. In addition Winkler (1998) includes parts of Ngawa (Aba) TAP in Sichuan Province

below production costs (Winkler 1998). To compensate for this they sell even more timber on the free market. As a result in some areas annual felling is four times more than the sustainable yield (Yang 1985). As a result: Forest cover in Tibet AR has fallen from 9 % (1950) to 5 % (1985), in Yunnan from 55 % (1950's) to 30 % (1975), and in Sichuan from 30% (1950) to 6.5% (1998). (Li Zhixi and He Qiang 1995 pers com, Pomfret 1998, Winkler 1998).

Although the biodiversity of SW China is still considerable, deforestation is doing away either singly or in concert with much of the natural foundations requisite for such diversity. The most dominant tree species in the temperate & subalpine zone of SW China include Picea, Pinus, Abies, Tsuga, Quercus, Juiperus, & Larix and at lower level Fagaceae, Lauraceae, Araliaceae, Manoliaceae and many species of bamboo. Deforestation is posing a threat not only to the dominant forest species, but especially to a number of very rare gymnosperms¹. (Hsiung and Johnson 1981, Gyurme Dorje 1996, Li 1993). A great deal of information exists on extinct or endangered birds and mammals in China. Many of the endangered species are found in SW China and include 18 mammal² and 23 bird³ species. Where forests have been indiscriminately cut this has resulted in large declines in mammal and bird counts. (Ma & Chang 1980, Smil 1984 Tsultrim Palden Dekhang, Li 1993). The reduction in predators, has resulted in a massive infestation of rodents⁴ and lagomorphs in many areas of SW China resulting in the degradation of over 8m ha pasture and extensive areas of "black sands", where no grazing can occur (Zheng Boquan 1980, Marc Foggin 1998 pers. comm., Smith undated, Studley 1996 & 1999, Smil 1984, Xu Dixin 1981)

Although China, at the national level, has a solid record in the area of biodiversity conservation, this has made very little difference to the peoples of SW China, where many of the reserves lack staff, funds, infrastructure or a management plan. The international conservation community has focussed on the panda at the expense of other endangered species (Schaller 1998a).

¹ e.g Dawn Redwood (Metasequoia glyptostroboides)

² takin (Budorcas spp), wild yak (Bos grunniens), serow (Capricornis sumatraensis), red deer (Cervus elaphus wallichi), musk deer (Moschus spp), goral (Naemorhedus spp), argali sheep (Ovis ammmon hodgsoni), antelope (Pantholops hodgsoni), giant panda (Ailuroopoda melanoleuca), red panda (Ailurus fulgens), leopard (Neofelis nebulosa), snow leopard (Panthera uncia), black bear (Selenarctos thibetanus), brown bear (Ursus arctos pruinosus), wild ass (Equus hemionus kiang), golden monkey (Rhinopithecus roxellanae)

³ eagles (Aquila chrysaetos Haliaetus leucoryphus), bearded vulture (Gypaetus barbatus), falcon (Falco cherrug), kites (Haliastur indus), grouse (Syrrhaptes tibetanus), partridge (Arborrophila mandellii ,A. rufogularis, A. rufpectus, Perdix hodgsonniiae, Lerwa lerwa), pheasant (Crossoptilon crossoptilon, Ithaginis cruentus, Lophophorus impejanus, L. sclateri, Lophura leucomelanos), snow cock (Tetraogallus himalayensis, T. tibetanus), tragopan (Tragopan blythii, T. Satyr, T. Temmincki) and crane (Grus nigricollis Anthropoides virgo)

⁴ Qinghai microtus, Ochotona curzoniae Hodgson, O. Daurica, Myospalax spp & Marmota Himalayana Hodgson

Deforestation is not only responsible for biodiversity loss but very high rates of evapotranspiration and albedo, and a reduction in water retaining capacity which has resulted in extremes of water run-off. These extremes have seemingly led either to drought & desertification or erosion, debris flow and floods (Yang 1986, Winkler 1998, Tacke 1981, Richardson 1990). Increased albedo has been linked with the exacerbation of snow disasters and increased erosion and floods have led to degraded hydro-electric & irrigation systems, loss of life and damage (Winkler 1998).

Last summer (1998), China experienced severe floods effecting many of Asia's largest rivers. The Yangtze river experienced the worst flooding since 1954, claiming more than 3,650 lives and causing more than USD 30 billion in damage. This prompted the desperate measures by the government who imposed a complete felling ban on SW China, and closed 9m ha of grazing land, to facilitate reforestation. Almost overnight 1 million Tibetans, who were involved in the timber trade or yak herding, lost their means of livelihood, and local governments lost their main source of income.

Alternative income sources are required that support nature conservation and community development, and the potential of ecotourism combined with agro-forestry requires urgent study.

8 The challenges

On the basis of China's experience with tourism and scenic parks & reserves to date and the global lessons about the impact of tourism on fragile environments nature conservation, and indigenous peoples there are number of challenges ahead if China plans to introduce "ecotourism" that is sustainable and more "green" than "greenwash" (Cao Min 1999, McLaren 1998)

8.1 The challenge of Forest Parks

In the past decade China has established over eighty-four national sites of scenic beauty as well as over five hundred historic and national relic sites. Rapid tourism development however, resulted in a number of on-site problems. These have seemingly been caused by poor planning, constant changes of management agency, a lack of cooperation between too many agencies, and the lack of a centralised management system. This has resulted in :- pollution, soil erosion, urbanization, litter, industrial waste, haphazard or inappropriate location of concessions (hotels in particular), inappropriate building styles, poor maintenance, acid rain, the erosion of traditional ethnic culture and social values, elite capture and inequitable benefit sharing, and the "McDonaldization" of tourism. (Zhu 1990 Liu & Dowling 1991, Newby & Hong Tao 1991, Dangerfield 199, Tisdell 1996, Li & Hinch 1998, McMaster 1999, Zhang 1989). In the past few years, however local governments have done more to protect relics, restore temples, plant trees and develop tourism services. Forest Parks appear to be needed more for their

¹ A homogenized consumer wasteland, with the same buses, the same soulless hotels, the same services, the same uniforms, and a loss of the unique and the authentic (McMaster 1999, Ritzer 1993)

social values than for the limited economic returns associated with timber harvest. One of the major goals for China's Forest Parks is to provide benefits to the domestic market and international foreign visitors. Unfortunately these goals are not compatible as the use patterns and needs of the foreign visitor is not the same as the Chinese. Typically the foreign visitor uses a forest park for camping, orienteering, backpacking, mountain biking, kayaking, high risk recreation (skiing, mountain climbing, hunting, caving) driving-for-pleasure, caravanning, & recreational vehicle use. All of these activities are very low on the preference list of typical Chinese park visitors. Chinese forest park visitors typically dress in their best clothes and go to the parks to enjoy their families and romantic interests. Car ownership is low precluding the possibility of driving-for-pleasure, bicycle riding is deemed a necessity not a recreational activity, there are few facilities for RV's or caravans, sleeping in a tent on the ground and backpacking are not considered recreational and most Chinese people do not like high risk recreation.

Forest parks can only be utilized when they are properly developed. If conservation is not fully considered the resource may be damaged during development. One example of this is the Hailuogou Glacier Park, in Sichuan, which I first visited in 1994, when it had a few discrete hotels, and a path which wound its way between magnificent conifers (Abies spp & Picea spp) which linked the three camps to the glacier. Today it has been over-developed, with large brash concrete hotels, poorly aligned power lines, and an unnecessary "Motorway" slicing through the forest, to the edge of the glacier (Schaller 1998).

In order to preserve tourist resources it is necessary to regulate, conserve and educate. The number of tourists in the Forbidden City has been regulated by raising the admission fee. A new section of the Great Wall (at Mutainyu) has been opened to relieve pressure on the congested Badaling section, and two more sections are being restored. Environmental conservation regulations are needed for all major tourist areas. In addition there is a need for natural environment interpretation and education (Liu & Dowling 1991)

8.2 The challenge of Nature Conservation

The major purpose of 80% of China's reserves is the protection & conservation of flora and fauna, but similar problems to the scenic reserves have been caused by; the lack of a central planning agency, agencies who only protect their own interests, reserves that are too small to be effective, illegal tree felling, a lack of cooperation between adjacent forest parks & reserves, low levels of environmental education amongst the people living close to the reserve, staff shortages, a failure to compensate local inhabitants, a failure to curb or control tourism, and hunting in exchange for shooting fees and the sale of trophy heads. Some of these problems are caused by the contradictory reserve goals of maximising income and conservation.(Edmonds 1994, Richardson 1990)

8.3 The challenges of Ethnic Tourism

China is seemingly keen to promote "ethnic" tourism, because of demand and its potential for "developing" some of China's more remote areas and incorporating them into the market economy. However there appears to be an emphasis on the economic development of select "ideal" groups, often to the detriment of culture & environment, and often without an adequate socio-environmental impact assessment. This has resulted in :- a lack of ethnic control and ownership, elite capture, the "freezing" of ethnic culture, assimilation with the national society, inequitable benefit distribution, authentic compromise and incomplete ethnic images¹, the erosion of traditional ethnic culture and social values, and a lack of ethnic capacity building in resource management, marketing or site development (Li 1994, Li & Hinch 1998)

One critical characteristic of indigenous or ethnic tourism development is the actual "ownership" or control an ethnic minority group can exert in the process. If the group has legally recognised power in determining local use of national services and infrastructure, and natural resource management it is likely to play a strong role in its own tourism development. The cooperation of local, national and international concerns is a central issue in this kind of tourism development. Political autonomy plays a key role in this development process which benefits minority groups.(Li & Hinch)

The paradoxes of ethnic tourism occur because of inherent contradictions between conservation and change associated with the process of development. Viable cultures are not static but evolve and tourism accelerates socioeconomic change which often affects the authenticity of ethnic tourism. Cultural pluralism is an important asset in ethnic tourism, yet political and economic institutions tend to integrate minority peoples into the national society.

Culturally & economically sustainable tourism development must fit the local society and make cultural sense. The ethnic people themselves must own the process of local tourism development, and the state, in turn, may benefit from cultural diversity in both a socio-cultural and an economic sense (Swain 1989)

9 Developing Ecotourism

The introduction of ecotourism by CNTA, is very welcome. If China, however wants to go beyond the rhetoric of politically correct buzz words it should consider the negative impact of "ecotourism" in many parts of the world (See McLaren 1998) and re-examine its classical paradigms of ecotourism. Seemingly to ensure the sustainability & viability of; its environment, its flora & fauna, and its indigenous peoples there is a need to adopt an unambiguous definition of ecotourism and mechanisms for its development, monitoring and evaluation. One definition to consider would be "responsible travel to natural areas that conserves the environment and sustains the well-being of local people" (The Ecotourism Society 1991). If ecotourism,

¹ Cultural programming can be very selective and only ethnic groups who reflect the unity of China's minority peoples may be chosen (CNTA 1994)

however is to be developed in remote areas that have been impacted by China's felling bans, ecotourism additionally should:-

- avoid any negative impacts that can damage or destroy the integrity or character of the ethnic, natural or cultural environments being visited
- should educate the traveller on the importance of conservation
- direct revenue to the conservation of natural areas and the management of protected areas
- bring equitable economic benefit to local & indigenous communities and direct revenues to people living adjacent to protected areas
- emphasise the need for local & indigenous ownership, planning & management of parks & reserves, & endogenous development.
- not exceed the social or environmental "carrying capacity"
- encourage local & indigenous capacity building in conservation, tourism & interpretation
 & reserve management.
- retain a high percentage of the revenue in the local or indigenous community by
- encouraging the development of locally owned facilities and services.
- develop infrastructure sensitively in harmony with the local environment and building traditions, based on appropriate technologies that conserve local flora and fauna

The development of ecotourism needs to be accompanied by the sustainable development of the natural resources adjacent to protected areas because ecotourism is often seasonal and as compensation to the local people for loss of grazing, timber, NTFP & agricultural resources in the park. One possible answer to this would be an agro-forestry programme, which would not only take pressure off the parks resources, but provide benefits that would augment tourism (Pederson 1990)

The development community has not adequately addressed how ecotourism can work with local & indigenous communities, and most plans to date have been exogenous. Priority should be given to the development of endogenous paradigms, predicated on the traditional cultural frameworks and cognition of the local people (Escobar 1995, Ferguson 1994)

Currently community values, beliefs & indigenous knowledge are rarely integrated into development plans. The benefits for local people are often considered as peripheral, to the primary goals of nature conservation or profit. Participatory or endogenous approaches that empower local people are not common. It is time for those who facilitate "development" to resource and empower local communities to develop paradigms predicated on endogenous definitions of progress, self determination, development & sustainability (Brandon 1993, Beauclerk et al 1988)

If ecotourism is to be developed among the indigenous peoples of SW China, it is important to learn the lessons from India and Nepal. When tourism was introduced in "Little Tibet" (Ladakh) in the mid 1970's it had a very negative impact. Indigenous cultures can easily be devastated by tourism. At this level tourism creates its own universe, an artificial world with no place for the local population. The shift from traditional lifestyle to the technological world represents a shift from ethical values based on the interdependence of all life forms toward

a value-free objectivity with no ethical foundation. Ladakhi society was self-sufficient until tourism, one of consumerism's most exaggerated features came along. The psychological pressures to modernize and the promise of economic gain are potent rationalizations of tourism development. Although it promised much it delivered very little, resulting in cultural rejection, loss of self esteem, alienation, loss of self-reliance, rejection of local goods, rejection of traditional values, begging, weakening of family and community ties, and the acquisition of material status symbols (McLaren 1998, Norberg-Hodge 1992, Goldstein 1992)

The peoples of SW China have since 1950 been impacted by assimilation, acculturation, sedentarization, modernity and the market economy which has posed threats on their environment, cultural and social systems. There are real dangers that ecotourism could exacerbate the situation. Few studies have been conducted on the importance of the natural world in their lives or the potential for ecotourism. It would appear that before ecotourism is further promoted participatory research is required addressing their worldview and environment predicated on; an impact (social, cultural, environmental) assessment, research into indigenous knowledge & conservation ethics, rural appraisal & environmental perceptual mapping (Cary 1995, Colfer 1996, IIED 1993, MTITD/ICL nd, PDTMP 1996, Richardson 1996, Salim nd, Studley 1999c Warren 1992)

This would enable the identification of a sustainable endogenous paradigms that would support ecotourism, nature conservation, agro-forestry and community development.

9 Conclusions

The introduction of ecotourism into China, especially into the remote mountain areas of SW China affected by Chinas felling ban has the potential both for supporting systems of socioenvironmental sustainability or their destruction.

It offers the prospect of

either supporting nature conservation and community development in minority areas, predicated on endogenous paradigms of self determination, ownership, cultural authenticity & fit, indigenous knowledge, and conservation ethics.

or as a means

of exploiting minority people, predicated on exogenous paradigms of "colonisation", market incorporation, homogenization, commodification, elite capture, marginalisation, alienation and environmental destruction.

Both Han China and the minority peoples of SW China, have long histories with rich repositories of conservation ethics and holistic environmental consciousness hidden in their knowledge systems. As China moves into the new millennium, and searches for sustainable paradigms for its land and its peoples it should consider tapping into its historic past and indigenous minority knowledge systems rather than allowing itself to be "colonized" by alien paradigms & values of

western modernity The challenges of China's parks and reserves, do need to be addressed as a prerequisite for the development of ecotourism. There does appear to be a need for centralised control of both "forest parks" and "nature reserves", with unambiguous goals, good planning, strategic zones, monitoring and evaluation, impact assessment, more environmental education, adequate compensation, and mechanisms for inter departmental cooperation.

Introducing ecotourism into indigenous minority areas does present its own challenges, especially if China does not wish to repeat the mistakes made in other parts of the world (namely Ladakh). This requires an unambiguous definition of ecotourism, research into indigenous knowledge & conservation ethics, an impact assessment, rural appraisal & perceptual mapping, and the identification of endogenous paradigms that would support ecotourism, nature conservation, agro-forestry and community development.

It would appear that ecotourism, combined with agro-forestry has much to offer the indigenous mountain people of SW China, and providing it can be predicated on a sustainable endogenous paradigm, it will not only help them sustain their culture, livelihood and environment, but the world to continue to experience the unique diversity of China.

10. Literature Cited

Adams WN, 1995, Green Development Theory; Environmentalism and Sustainable Development in Power of Development (Ed J Crush) pp 87-99 London Routledge

Barnes G & Dashun G, 1996, the Ritual Landscape of 'Boar Mountain' Basin: the Niuheliang Site of North-eastern China in World Archeology 28(2) pp 209-219

Beauclerk, John et al, 1989 Indigenous Peoples: A Field Guide for Development Oxfam

Bernbaum E 1990 Sacred Mountains of the World Random House Book

Bernbaum E 1996 Sacred Mountains: Implications for Protected Area Management in Parks 6 (1) pp 41-48

Bernbaum E 1997 Sacred Mountains in Unesco Courier 50 Sept pp 34-36 France Unesco

Bjork Sven 1993 The Honguan Wetland Research Project : An Ecological & Technical Feasibility Study of Peat Mining in Hongyuan Sichuan University of Lund & SINR Chengdu

Blondeau A-M & Steinkellner 1996 Reflections of the Mountain: Essays on the History and Social Meaning of the Mountain Cult in Tibet and the Himalaya Vienna Austrian Academy of Science Press

Bornemeier J, et al, 1997 Ecotourism for Forest Conservation & Community Development Bangkok FAO

Brandon K 1993 Basic Steps Towards Encouraging Local Participation in Nature Tourism Projects in Ecotourism:.. (Ed Linberg & Hawkins) VT the Ecotourism Society

Buffetrille K 1996 One Day the Mountains Will Go Away... Preliminary Remarks on the Flying Mountains of Tibet in Reflections of the :(Eds Blondeau & Steinkellner) pp 77-90 Vienna Academy of Sciences Press

Cao Min 22/4/99 Expo 99 Preparations Finished in China Daily Beijing

Cary J 1995 An Analysis of Perceptions of High Country Landscapes: A Test of Comparative Quantative Methods & An Artificial Neural Network Technique Landscape Research Nz Ltd

Chen Liang 12/9/98 Tibet's Biodiversity Conserved in China Daily Beijing

China Daily 4/5/99 Briefs (Page 3 Date: 4/5/99) in China Daily Beijing

China Daily 18/3/99 Hainan Strives for Sound Ecology in China Daily Beijing

China Daily 23/1/99 Travel Notes (Page 5 Date 23/1/99) in China Daily Beijing China Daily 24/10/98 Focus on Forest Tourism Fosters Income Ecology in China Daily Beijing

CNTA 1994 China Folklore '95 Beijing CNTA

Colfer C.J.P et al 1996 Assessing People's Perceptions of Forests in Danau Sentarum Wildlife Reserve Working Paper No. 13 Bogor CIFOR

Conroy C 1988 Introduction in the Greening of Aid: Sustainable Livelihoods in Practice (Eds Conroy & Livinoff) pp Xi-xiv London Earthscan

Dai Y 1990 Revitalizing China's Tourism in Beijing Review 1 Jan 27

Dangerfield L 1995 Growing Treasures in China Now 153 pp 10-11

Diemberger H 1994 Mountain Deities Ancestral Bones & Sacred Weapons. Sacred Territory and Communal Identity in E. Nepal & S.Tibet in Report No. 1/1 144-153 (Ed Kvaerne) 6th Seminar Institute for Comparative Research in Human Culture

Dreyer June Teufel 1976 China's Forty Millions Cambridge Ma & London Harvard University Press

Edmonds R.L. 1994 Patterns of China's Lost Harmony London Routledge

Escobar A 1995 Encountering Development: the Making and Unmaking of the Third World Princetown Princetown University Press

Ferguson J 1990 the Anti-politics Machine: Development Depoliticisation and Bureaucratic Power in Lesotho Cambridge Cambridge University Press

Forbes B Fistonich A Zi Xiang Dong & Studley J 1996 Shiqu County Livestock Purchasing Report Hong Kong Friends of China Foundation

Fu Lixun 1989 Woguo Huanjing Kexue Jishu De Fazhan Beijing Zhongguo Huanjing Chubanshe

Goldsmith E et al 1995 the Future of Progress: Reflections on Environment and Development Dartington Green Books

Greer CE & Doughty RW 1976 Wildlife Utilization in China in Environmental Conservation 3 (3) pp 200-208

Gyurme Dorje 1996 Tibet Handbook with Bhutan Bath Footprint Handbooks

Heberer Thomas 1987 Ethinic Minorities in China: Tradition and Transform Raderverlag Edition Herodot

Heberer Thomas 1989 China and its National Minorities: Autonomy Or Assimilation? Armonk NY M. E. Sharpe

Hsiung Wenyue & FD Johnson 1981 Forests & Forestry in China in Journal of Forestry 79 (2) pp 76-79

Huang Zhiling 27/2/99 Yibin Offers Multiple Attractions in China Daily Beijing

IIED 1993 Participatory Rural Appraisal on Tourism & Development in Kalam & Bayun London IIED

IUCN 1980 World Conservation Strategy Gland Switzerland IUCN

Ives J 1994 Effects of Development on Rural Poverty Minority Peoples and the Mountain Environment N Yunnan Province China in Mountain Research and Development 14(2)181-184 California

Jiang Zhai 1993 Zhongguo Huanjing Baohu Gongzuo De Xin Jinzhan Dili Zhishi

Jing Zhuqing 27/3/99 Forest Park Offers Tranquility in China Daily Beijing

Karmay SG 1996 The Tibetan Cult of Mountain Deities and its Political Significance in Reflections of the Mountain: (Eds Blondeau & Steinkellner) pp 59-76 Vienna Academy of Sciences Press

Kou Z 1990 1992-Golden Year for Beijing Tourism in Beijing Review 29 Oct pp 26

Lankford SV & Knowles-Lankford J 1995 Impacts of Tourism Development in the Penghu National Scenic Area Republuc of China in USDOAF General Tecnical Report Issue 323 pp 90-95 USA US Dept. Of Ag

Lash G 1997 What is Community-based Ecotourism in Ecotourism for Forest Conservation & Community Development (Ed Bornemeier et al) pp 2-13 RECOFTC Report No 15 RAPPublication 1997/42 Bangkok FAO

Lele SM 1991 Sustainable Development: A Critique in World Development 19 pp 607-621

Li & Zhang Mingtao W 1985 Watershed Management in the Mountain Regions of SW China From Watershed Management Kathmandu ICIMOD CAS

Li FMS & Sofield THM 1994 Tourism and Socio-cultural Change in Rural China in Tourism:the State of the Art (Ed AV Seaton et al) pp 854-867 Chichester Wiley

Li N 1991 'Visit China in 1992' to Be Kicked Off in China Review 1 July pp 34-35

Li W 1993 Forests of the Himalayan-Hengduan Mountains of China and Strategies for Their Sustainable Development Kathmandu ICIMOD Lindberg K et al 1997 Ecotourism in China: Selected Issues and Challenges in Pacific Rim

Liu Jianjun 1990 Saving Wildlife: A Nation Mobilized in Beijing Review 16 22 pp 18-23 Beijing

Liu Jihan & Ross Dowling 1991 Integrating Tourism Development & Environmental Conservation in China in Ecotourism:incorporating the Global Classroom (Conf. 9/91) Brisbane Canberra Bureau of Tourism Research

Liu Zhaoguang 1985 Gongga Shan Chenhgdu Chengdu Insitute of Biology

Tourism pp 128-143 New York CAB International

Beijing

Liu Zhaoguang 1985 The Flora of Gongga Shan Chengdu Chengdu Insitute of Biology: Academia Sinica

Liu Y 1991 Tourism: Prospects for 1991 in Beijing Review 21 Jan pp 15-18

Long Chun-lin, nd, Dragon Culture Sacred Forests and Indigenous Knowledge on Resource Management in Western Yunnan China Kunming Chinese Academy of Science

Long Chun-lin & Chen Sanyang 1994 Indigenous Knowledge and Natural Resources Management in Zixishan Region Chuxiong China Kathmandu ICIMOD

Ma Shijun & Chang Shuzhong 1980 It is of Immediate Urgency to Protect Our Environment & Natural Resources in Economic Management 10 pp 28-29 39

Martin G 1995 Ethnobotany :Volume 1 London Chapman & Hall

Mclaren D 1998 Rethinking Tourism and Ecotravel West Hartford Kumarian Press

Mcmaster P 19/4/99 Stop Homogenization to Protect Tourism in China Daily Beijing

Meisner M 1986 Mao's China and After: A History of the Peoples Republic London & New York Collier Macmillan

MTITD/ICL Community Participation in Tourism: Development of A Replicable Framework for Project Identification & Implementation London & Dominica Min. Of Tour/Imperial College

Naquin S & Chuen-fang Yue Eds 1997 Pilgrims and Sacred Sites in China in Method & Theory in the Study of Religion 9 (2) pp 183-186 Walter De Gruyter & Co

National Environmental Protection Agency 1994 China: Biodiversity Conservation Action Plan Beijing NEPA

Needham J 1956 Science & Civilization in China Vol II Cambridge Cambridge University Press Needham J 1986 Science & Civilization in China Vol 6 Biology & Biological Technology Cambridge Cambridge University Press

Newby FL & Tao H 1993 the Sleeping Giant Awakens: Forest Parks for Tourism in China in Leisure & Tourism: Social & Environmental Change pp 641-645 Sydney University of Technology

Norberg-hodge Helena 1992 Ancient Futures : Learning From Ladakh Delhi Oxford University Press

Overmyer DL 1986 Religions of China: the World As A Living System San Fransisco Harper & Row

PDTMP 1996 A Report on Participatory Tourism Appraisal in Pitlochry Scotland Edinburgh Scottish Participatory Initiatives for Pitlochry Tourist Management Programme

Pedersen A 1990 Issues Problems & Lessons Learned From Three Ecotourism Planning Projects (Paper) in Ecotourism & Resource Conservation (Ed Kusler) pp 61-74

Peet R & Watts M 1996 Liberation Ecologies: Environment Development Social Movements London Routledge

Pei Shengji 1993 Managing for Biological Diversity Conservation in Temple Yards and Holy Hills... in Ethics Religion & Biodiversity (Ed Hamilton) pp 118-132 Cambridge the White Horse Press

Pomfret J 22 Yangtze Flood Jolts China's Land Policies; Curbs Set to Protect Environment Washington Washington Post

Qu Geping & Li Jinchang 1994 Population & Environment in China London Paul Chapman Publishing

Richardson CW et al 1996 Thinking About Ecology: Cognition of Pacific Northwest Forest Managers Across Diverse Institutions in Human Organization 55(3) 314-323

Richardson D 1990 Forests and Forestry in China : Changing Patterns of Resource Management Washington DC Island Press

Ritzer G 1993 the Mcdonaldization of Society London Sage Book

Salim A et al (ud) Impact of Deforestation on People's Conservation Ethic Bogor CIFOR

Schafer EH 1962 the Conservation of Nature Under the T'ang Dynasty in Journal Economic & Social History of the Orient V P 282 JE & SHOTO

Schaller GB 1998 A Wildlife Survey in Ganzi Pecture Western Sichuan New York Wildlife Conservation Society

Schaller GB 1998 Comments on the Hailuogou Reserve (English & Chinese) New York Wildlife Conservation Society

Shao Zongwei 24/4/99 Forestry Funding Increased in China Daily Beijing

Smil V 1984 the Bad Earth: Environmental Degradation in China London Zed Books

Smith, nd At Position Paper on 'Rodent Control' Measures on the Qinghai-Xizang Plateau Beijing CCICED

Sofield THB & Fung Mei Sarah Li 1998 Hitorical Methodology and Sustainability: An 800-year-old Festival From China in Journal of Sustainable Tourism 6(4) pp 267-292

Studley J 1999a Environmental Degradation in SW China (with references) on http://ourworld.compuserve.com/homepages/john_studley

Studley J 1999b Environmental Degradation in SW China in China Review Spring Issue 12 pp 28-33 London Great Britain -China Centre

Studley J 1999c Environmental Perception & Conservation Ethics Among Forest Actors: Part 1 Methods Testing .. http://ourworld.compuserve.com/homepages/john_studley John Studley

Sun Shangwu & Cao Min 17/3/99 Guizhou Continues to Enjoy Positive Trend in Tourism in China Daily Beijing

Swain MB 1989 Developing Ethnic Tourism in Yunnan China: Shilin Sani in Tourism Recreation Research 14 (1) pp 33-39

Tacke EF. 1993 in Forests of the Himalayan-hengduan Mountains and Strategies for Their Sustainable Development (ed W.Li) Kathmandu ICIMOD

Tao Hong 1990 Conceptual Designing & Planning of Tang Yu Forest Park in Shaanxi Province the Peoples Republic of China (Unpb MSc Thesis) University of Maine

Tenzin P Atisha 1996 the Tibetan Approach to Ecology London Office of Tibet Web Site

Tisdell C 1996 Ecotourism Economics and the Environment: Observations From China in Journal of Travel Research Vol 34 (4) pp 11-19 USA University of Colorado

Tsultrim Palden Dekhang 1996 Biodiversity of the Tibetan Plateau London Office of Tibet Web Site

Tuan Yi-fu 1968 Discrepancies Between Environmental Attitude and Behaviour: Examples From Europe and China; Canadian Geographer 12(3) 176-191

Wang X et al 1989 Ziran Baohuqu De Lilun Yu Shijian Beijing Zhongguo Huanjing Kexue Chubanshe

Warren D 1992 Indigenous Knowledge Biodiversity Conservation & Development (Keynote Address) Conservation of Biodiversity in Africa: Local Initiatives & Inst. Nairobi National Museums of Kenya

Winkler D 1998 The Forests of the Tibetan Plateau: Human Impact and Deforestation in Past and Present in GE Clarke (Ed) Band OADW

Xu Dixin 1981 the Position and Role of Forests in the National Economy in Hong Qi No. 23 Dec 1 pp 40-45

Yang Y 1985 Great Importance Should Be Attached to the Ecological Balance of the Subalpine Forest of Western Sichuan. Int. Symp. On Ecology of the Development of Mountain Areas.

Yang Y 1986 Importance of Ecological Balance in the Subalpine Forest of Western Sichuan Intercol Bull 13

Yiping Li & Tom Hinch 198 Ethnic Tourism Attractions & Their Prospect for Sustainable Development At 2 Sites in China & Canada in Asia Pacific Journal of Tourism Research 2(1)5-18

You H 1996 Economy & Environment in Sustainable Tourism Place Design & Planning in Binhai Tourism Holiday Area At Shanhaiguan in Architectural Journal 9 pp 26-32 China

Zhan Lisheng 18/1/99 Guizhou Seeks Way to Vitalize its Economy in China Daily Beijing

Zhao Ang 1992 the Crisis of the Forest Industry in the Tibetan Area of Sichuan and Ways Toward Positive Development in Economic Geography (Jinji Dili) 12(1) pp 55-61 Changsa

Zheng Boquan 1980 Several Options on Strenthening Construction of Grasslands in Agricultural Econonomics Issue 3 pp 34-35

Zhu Jing 1989 Nature Conservation in China in Journal of Applied Ecology 26 pp 825-833

30/05/99 London John Studley