WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

MOUNT SANQINGSHAN NATIONAL PARK (CHINA) – ID No. 1292

1. DOCUMENTATION

i) Date nomination received by IUCN: April 2007

ii) Additional information officially requested from and provided by the State Party: IUCN requested supplementary information on 14 November 2007 after the field visit and on 19 December 2007 after the first IUCN World Heritage Panel meeting. The first State Party response was officially received by the World Heritage Centre on 6 December 2007, followed by two letters from the State Party to IUCN dated 25 January 2008 and 28 February 2008.

iii) UNEP-WCMC Data Sheet: 11 references (including nomination document)

iv) Additional literature consulted: Dingwall, P., Weighell, T. and Badman, T. (2005) **Geological World Heritage: A Global Framework Strategy.** IUCN, Gland, Switzerland; Hilton-Taylor, C. (compiler) (2006) **IUCN Red List of Threatened Species.** IUCN, Gland, Switzerland; IUCN (ed.) (2006) **Enhancing the IUCN Evaluation Process of World Heritage Nominations: A Contribution to Achieving a Credible and Balanced World Heritage List.** IUCN, Gland, Switzerland; Management Committee (2007) **Abstract of the Master Plan of Mount Sanqingshan National Park.** Mount Sanqingshan National Park; Management Committee (2007) **Mount Sanqingshan International Symposium on Granite Geology and Landscapes**. Mount Sanqingshan National Park; Migon, P. (2006) **Granite Landscapes of the World.** Oxford University Press; Migon, P. (2006) **Sanqingshan – The Hidden Treasure of China.** Available online; Peng, S.L., Liao, W.B., Wang, Y.Y. et al. (2007) **Study on Biodiversity of Mount Sanqingshan in China.** Science Press, Beijing; Shen, W. (2001) **The System of Sacred Mountains in China and their Characteristics.** In: World Heritage Centre et al. (eds) Final Report of the UNESCO Thematic Expert Meeting on Asia-Pacific Sacred Mountains, 5-10 September 2001, Wakayama City, Japan, pp. 121-128; Thorsell, J. and Hamilton, L. (2002) **A Global Overview of Mountain Protected Areas on the World Heritage List.** IUCN, Gland, Switzerland; Thorsell, J. and Sigaty, T. (1997) **A Global Overview of Forest Protected Areas on the World Heritage List.** IUCN, Gland, Switzerland; Udvardy, M. (1975) **A Classification of the Biogeographical Provinces of the World.** IUCN, Gland, Switzerland; UNEP-WCMC (1990) **UNEP-WCMC Data Sheet: Mount Huangshan Scenic Beauty and Historic Interest Site.** UNEP-WCMC, Cambridge; Wen, J. (2007) **Mt Sanqingshan, a botanical treasure.** Smithsonian National Museum of Natural History, The Plant Press, 10 (4): 1+12.

v) Consultations: 16 external reviewers. Extensive consultations were undertaken during the field visit including with representatives of the State Party at Central Government, Jiangxi Provincial, Shangrao Municipal and community levels; the management authorities of Mount Sanqingshan National Park and the park's Management Committee. A special session was also organised with local community representatives and other stakeholders including the private sector. The mission benefited from the presence of national and international experts on geology, biodiversity and other conservation matters.

vi) Field visit: Peter Shadie, October 2007

vii) Date of IUCN approval of this report: April 2008

2. SUMMARY OF NATURAL VALUES

The nominated property, Mount Sanqingshan National Park, is located at the western end of the Huaiyu mountain range of northeast Jiangxi Province, central east China, 430 km southwest of Shanghai. The nominated property comprises an area of 22,950 ha coincident with the National Park and surrounded by a buffer zone of 16,850 ha which is not part of the nominated property. The park is divided into a core zone of 3,780 ha and a protected zone of 19,170 ha. Its legal status and management objectives conform

to IUCN Protected Area Management Category II.

Sanqingshan is a little-disturbed, forested granite mountain massif rising steeply to 1,817 m above sea level. The area is subject to a combination of subtropical monsoonal and maritime influences with four distinct seasons and forms an island of temperate forest above the surrounding subtropical landscape. The park is dominated by granite geology and granite landforms shaped through uplift, weathering and erosion. Characterized by peak forest (a term used to describe stone peaks juxtaposed with forest vegetation), the property includes a concentration of diverse granite landforms many of which resemble the silhouettes of human and animal shapes (pictographic stones). These features assume significant importance in Chinese culture and add to the broader cultural and spiritual values of the park. The park includes a diversity of physical features including a series of v-shaped valleys, numerous waterfalls up to 60 m in height, lakes and springs, and 48 granite peaks and 89 granite pillars. Of further significance, the nominated property is on the headwaters of Xinjiang River, an important tributary to Poyang Lake, the largest freshwater wetland in the Yangtze River Basin. Due to its location and physiography, Sanqingshan is subject to an interesting combination of meteorological effects giving rise to bright halos on clouds and white rainbows produced by light refraction, cloud seas and atmosphere-enhancing mists. These qualities add to the visual impact of the park's landform features.

Sanqingshan has a complex geological past. Its rocks give evidence of nearly a billion years of earth's development reaching back to the late pre-Cambrian (1,000-542 million years ago). The property is a massive uplifted pluton of deeply faulted and dissected granite, with the central massif of Yujing (1,817 m) dominating a fragmented network of jointed granite features. The area sits in the triangular juncture of three fault lines trending SSW-NNE, NW-SE and SW-NE which form the valleys bounding Sanqingshan. The park coincides with the site of collision of the Yangzi and Cathaysia continental plates; however, the granite intrusion which created the Sanqingshan massif itself is of much younger Mesozoic age. The Sanqingshan granites are notable for the compact occurrence of three different types of granite which were formed during the late Cretaceous period. Subsequent uplift, weathering and erosion has resulted in the present forest of pinnacles which are acknowledged as one of the most spectacular granite landscapes in China. The area's geomorphology is distinguished from nearby areas in showing no evidence of glaciation.

In addition to its scenic and geological values, Sanqingshan is an ecological island comprising temperate forest in a predominantly subtropical landscape. The park falls within the Sino-Japanese deciduous forest realm; however, climatic influences combine with altitudinal variation to create a concentrated and diverse assemblage of flora and fauna. The forest displays distinct vertical zonation across nine forest types from warm temperate evergreen broadleaf and coniferous foothill forest to low coppice forest on the summit. In terms of biodiversity, Sanqingshan is home to a number of relict, rare and endangered species of which 45 species are listed in the IUCN Red List of Threatened Species. Examples of rare plant species include *Cyclocarya paliurus, Ginkgo biloba, Liriodendron chinense, Magnolia cylindrica, Pseudotaxus chienii and Pseudotsuga gaussenii.* Sanqingshan has one of the best developed *Pseudotsuga gaussennii* forests in eastern Asia, covering an area of 533 hectares. Among the rare animal species are the Chinese anteater or pangolin, the Malayan porcupine, the Asian black bear, the clouded leopard, the Serow, Black Muntjac, two globally threatened pheasant species and the scaly-sided merganser. A notable feature are 68 East Asian – North American disjunct plant genera – i.e. closely related taxa occurring on two continents separated by thousands of kilometres of ocean. Examples of these genera include *Acorus, Campsis, Hydrangea, Illicium, Liquidambar, Liriodendron, Magnolia, Menispermum, Nelumbo, Penthorum, Phryma, Pseudotsuga, Sassafras, Saurura, Stewartia, Torreya and Tsuga*.

The park is also well known for its array of Taoist cultural relics, stone carvings and temples. Mount Sanqingshan has been a Taoist shrine since a priest, Ge Hong, came to the mountain 400 years ago. The ancient religion of Taoism is based on worship in and of nature, a philosophy which is very much in keeping with the conservation ethic now in practice in Mount Sanqingshan.

3. COMPARISONS WITH OTHER AREAS

As a mountain property, Sanqingshan needs to be compared with comparable mountain properties, including those on the World Heritage List, in particular in the Palearctic Biogeographic Realm. An important basis for comparison are IUCN's thematic studies "A Global Overview of Forest Protected Areas on the World Heritage List" of 1997 and "A Global Overview of Mountain Protected Areas on the World Heritage List" of 2002. Comparable mountainous properties with temperate and/or subtropical forests in the Palearctic Realm include eight existing World Heritage properties in China (Huanglong, Huangshan, Jiuzhaigou, Mount Emei, Mount Wuyi, Taishan, the Sichuan Giant Panda Sanctuaries and the Three Parallel Rivers of Yunnan Protected Areas), and Yakushima and Shirakami-Sanchi in Japan.

Granites cover 15% of the earth's surface. The nominated property may be compared with a number of other properties in granitic terrains. The granite massif of Yosemite, USA, much of which is characterized by temperate forest, is perhaps the best comparison

for Sanqingshan on the basis of its granitic record of Earth's evolution. In contrast to Sanqingshan, Yosemite was glaciated and displays quite different landscape values. Most other comparable granite World Heritage properties are characterized by massive granite batholiths such as Mount Kinabalu, Malaysia, and/or with granitic columns and pillars modified by the impact of glaciation such as Huangshan.

The closest comparison in terms of aesthetic and geological/geomorphological values is Huangshan, which is already inscribed on the World Heritage List under criterion (vii). The values of Sanqingshan are similar to those of Huangshan; however, the granite features of Huangshan are considered to be less fine in detail, and dulled in effect by past glaciation. The aesthetic beauty of Sanqingshan also derives from the juxtaposition of its granite features with the mountain's vegetation enhanced by the meteorological conditions which create an ever-changing and arresting landscape. In summary, Sanqingshan has aesthetic values that meet or exceed those of Huangshan and this provides a basis for inscription on the World Heritage List under criterion (vii).

The closest comparison in geological/geomorphological terms is also with Huangshan, which also contains Cretaceous granite peak forest landforms. However, IUCN notes that Huangshan is not currently inscribed under criterion (viii), so it does not provide the same benchmark to establish the potential case for Sanqingshan. Reviews note that there are similarities between the two properties such as similar lithology, the age of the rocks, and the mountainous appearance of the landscape. In detailed landform terms, Sanqingshan can be distinguished from Huangshan on some points: the landforms of Sanqingshan are best classified within the so called "all-slopes category" of granitic landforms (i.e. containing all angles of slope), while Huangshan is a plateau which only locally, around its periphery, assumes certain characteristics of all-slopes topography. The granite of Huangshan is also more bulky and tends to be sculpted into massive domes and blocks. Slender shapes and pinnacles do occur although not to the extent seen in Sanqingshan. However, IUCN considers that these distinctions are relatively specialized and that the geological/geomorphological similarities between the properties are much more evident than the differences. IUCN also notes that the values of the two properties are similar and complementary. IUCN considers that, taken alone, there is not a compelling case for inscription of Sanqingshan under criterion (viii); however, there could be a case for the State Party to consider a serial nomination, under this criterion, based on the similar and complementary values of Sanqingshan and Huangshan.

The key value of Sanqingshan noted in the nomination dossier and reviews in relation to ecological and biological processes is the rich assembly of intercontinental disjunct plants between East Asia and North America. This is an interesting and important value of the property but somewhat of a specialised scientific feature in relation to the application of criterion (ix). IUCN does not consider this to be a sufficient basis for supporting a case for inscription on the World Heritage List under criterion (ix). However, even on the basis of comparative analysis in relation to this specialised feature, the case for inscription appears to be weak. When comparing numbers of disjunct species occurring in Sanqingshan and other properties, it is important to note that there is technical debate over the systematic status of a number of the species listed in the nomination, which includes both species and subspecies. Reviewers have noted the need for caution in relation to comparisons, as the different consideration of species and/or subspecies affects the numbers of disjunct species noted in different lists. An example is *Pseudotsuga gaussenii,* referred to in the nomination as a key species, but regarded a subspecies by others including the Conifer Specialist Group of the IUCN Species Survival Commission.

IUCN notes that the phenomenon of disjunct species is widespread. In China, eight sites are noted by the State Party as having more than 50 disjunct genera each. Sanqingshan (68 genera) has, by a narrow margin, the largest number of disjunct species, followed by Mount Shenlongjia in Hubei province (67), and the three World Heritage properties Huangshan (58), Mount Lushan (58) and Mount Wuyi (55). It is therefore possible to conclude that the phenomenon is already well represented on the World Heritage List including in three World Heritage properties in China. In addition, Mount Wuyi (99,975 ha), the Sichuan Giant Panda Sanctuaries (924,500 ha) and the Three Parallel Rivers of Yunnan Protected Areas (1,698,419 ha) are much larger properties than Sanqingshan (22,950 ha), and have much larger numbers of relict and endemic species, and demonstrate a much broader range of ecological and biological processes. In conclusion, IUCN considers the values of Sanqingshan in relation to disjunct and relict species are too specialised to be a distinctive claim for Outstanding Universal Value, and in any case are already represented by other World Heritage properties, including in China.

Although Sanqingshan has not been nominated under criterion (x), IUCN has undertaken an initial comparative analysis under this criterion in order to provide guidance to the State Party, and the results of this analysis are shown in Table 1. The nominated property is a relatively undisturbed mountain forest with a rich flora and fauna, and functions as a refuge for a number of rare and threatened species that have survived from the Mesozoic and Tertiary Eras. Comparable mountainous properties which have been inscribed on the World Heritage List under criterion (x) include Huangshan, Mount Emei and Mount Wuyi.

Mount Wuyi, four times the size of Sanqingshan and spanning the both Chinese Subtropical Forest and South Chinese Rainforest biomes, has the richest flora and fauna amongst these properties, with Mount Emei or Sanqingshan ranking second depending on the attribute considered. Consequently, Mount Wuyi has been recognised as "the most outstanding area for biodiversity conservation in south-east China and a refuge for a large number of ancient, relict species, many of them endemic to China". Sanqingshan and Huangshan, which include Oriental Deciduous Forest and Chinese Subtropical Forest, have similar and complementary values in terms of the *in situ* conservation of biodiversity and threatened species, with Sanqingshan's species numbers generally comparable or greater than those for Huangshan. Therefore, and also because of their relative proximity, there appears to be a potentially strong case for recognition of Sanqingshan under criterion (x) as a serial extension of Huangshan, which is already inscribed under this criterion; and the State Party may wish to give this further consideration.

In summary, IUCN's comparative analysis concludes that there is a basis for inscription of Sanqingshan under criterion (vii), as its aesthetic values meet or exceed those of Huangshan, which is already inscribed on the World Heritage List. Taken alone, the values of the nominated property under criteria (viii) and (ix) (and maybe also criterion (x) although the property was not nominated under this criterion) are however not of Outstanding Universal Value, and could warrant recognition on the World Heritage List only if re-nominated as a serial property in combination with similar and nearby sites, in particular Huangshan.

4. INTEGRITY

4.1 Legal status

Mount Sanqingshan National Park is the state property of the Peoples Republic of China. It was designated a national park by the State Council of the Peoples Republic of China in 1988. In 2005 it was further designated a national geopark by the Chinese Ministry of Land and Resources and in 2006 inscribed on the list of National Natural Heritage by the Ministry of Construction. The park is protected under a number of national laws with major protection and management afforded under the umbrella of the 2006 Regulations on Management of Mount Sanqingshan National Park of Jiangxi Province.

Management of the property is the responsibility of the Ministry of Construction, Jiangxi Province and Shangrao Municipality with direct management delegated to the Management Committee of the Mount Sanqingshan National Park. The Management Committee also acts as a coordination body bringing together the various departments of government at State, Provincial and Municipal levels who have a mandate or interest in the park. This is crucial as the various departments maintain their separate authorities and therefore must be coordinated to ensure consistent and coherent management and protection for the property. There is clearly close cooperation between all levels of government involved in the protection of the property. Although a number of departments are involved, there is a clear sense of shared objectives and the Management Committee is representative and includes senior representatives

Table 1: Comparison of Sanqingshan with Huangshan, Mount Emei and Mount Wuyi World Heritage properties in terms of key biodiversity attributes (species numbers include subspecies; species numbers in brackets for Sanqingshan are from supplementary information provided by the State Party)

Attribute	Huangshan	Mount Emei	Mount Wuyi	Sanqingshan	First ranked	Second ranked
Date inscribed	1990	1996	1999	Nominated for 32 COM 2008	n/a	n/a
Criteria	(ii), vii, x	(iv, vi), x (did not meet vii)	(iii, vi), vii, x (did not meet ix)	Nominated under vii, viii, ix	n/a	n/a
Area of property (ha)	15,400	15,400	99,975	**22,950**	Wuyi	Sanqingshan
Plant species	1,805	3,200	3,728	**2,373 (1,857)**	Wuyi	Emei
Vertebrate species (total)	297	434	475	**401 (-)**	Wuyi	Emei
Fish species	24	60	40	**36 (-)**	Emei	Wuyi
Bird species	170	256	256	**226 (207)**	Wuyi, Emei	-
Reptile species	38	34	73	**49 (31)**	Wuyi	Sanqingshan (Huangshan)
Amphibian species	20	33	35	**23 (24)**	Wuyi	Emei
Mammal species	45	51	71	**67 (48)**	Wuyi	Sanqingshan (Emei)

of the various departments of government, ensuring high level oversight of the property's management.

4.2 Boundaries

The park boundaries are appropriately drawn to protect the naturalness of the landscape and the areas required to maintain the scenic qualities of the property. The property, although relatively small, includes all of the granite peaks and pillars which provide the framework for its aesthetic values. It also includes important forest remnants and wildlife habitats. Boundaries are accurately surveyed and demarcated on the ground with more than 100 boundary markers and the buffer zone is similarly well demarcated. The park is roughly circular in shape and this is considered an effective design to ensure the integrity of the landscapes and ecosystems it contains. The property's integrity is further enhanced by the designation of a buffer zone that is actively managed in sympathy with the park.

4.3 Management

Mount Sanqingshan National Park is managed under a well designed zoning system. A Master Plan for the park is in place covering the period 2003-2020. This sets out the development plans for the park over the long term in a national and regional context. A more detailed Conservation and Management Plan was prepared for the park in 2005 and revised in 2007 in line with the World Heritage nomination. The Conservation and Management Plan is consistent with the overall Master Plan although some areas of planned development noted in the latter plan (such as further cable cars) are now considered to be excessive and will not be implemented (see Section 4.4. below). The Conservation and Management Plan adequately describes the park's values, establishes objectives of management and articulates management prescriptions for park zones. It identifies sectoral protection policies, monitoring and research activities and management resourcing.

Adequate and effective staffing is in place to manage the park. 242 staff are employed with larger numbers engaged seasonally. A mix of technical, maintenance and administrative staff are employed covering geological and biological sciences, management, law enforcement, communication, maintenance and administration. Local villagers are employed in a range of park functions. One advantage of the multi level government administration is that the relevant provincial departments also control rural development in the buffer zone where firm controls are in place.

The park is very well funded and receiving particular attention within the Central Government's five year plan. This, together with financial contributions from Jiangxi Province and Shangrao Municipality, is funding significant interventions in the park including the removal of 12 hotels to eliminate overnight accommodation in the park. The State Party reports some 235 million USD has been invested in the park since 1990 and annual funding has increased fifteen-fold in the last five years. Current reported levels of funding are very high by international standards.

Effective research and monitoring programmes are in place, including for water and air quality, noise and visitor use. A recent comprehensive biodiversity survey was completed involving 150 researchers and 20 field trips. A large amount of visitor information is available and a new visitor centre in Fenshui has been built with state of the art interpretation. A new visitor centre and museum is also under construction in the south of the park.

4.4 Threats and human use

The park's natural resources are in good condition and threats are considered manageable. The most significant threat relates to the future increase in tourism and related infrastructure and access development as outlined in more detail below. There are also some quarrying sites within the nominated property and buffer zone; however none are reported to be operational. The Master Plan commits to eliminating any industrial and mining activity in the park and to progressively rehabilitate quarry sites. IUCN encourages the park authorities to implement these measures as quickly as possible.

Tourism

The most significant threat to the park comes from tourism. Tourism use of the park has increased almost tenfold since 1988 (37,000 visitors), with the park receiving some 300,000 visitors per year at present. The Management and Conservation Plan caps visitation at a targeted 900,000 visitors per year. The park plans to manage tourism growth through developing facilities outside the core zone.

There are two cable car systems in place which focus use. Proposals are in place to establish facilities at the cable car bases of Jinsha and Waishuangxi with natural gas powered buses used to bring in visitors who would park in buffer zone villages. Visitor numbers are monitored and access is controlled through ticket and permit sales. Most use is concentrated around the top stations of the cable cars and associated trail systems. The recently built suspended walkway or 'Sky Path' is an impressive 4 km construction which gives access to the scenery of Mount Sanqingshan. Trail use is closely monitored with 20,000-30,000 visitors per year currently using the 50 kms of walking trails in the park. Trails are well constructed in granite and would have the capacity to withstand larger numbers of visitors. As only about 10% of visitors use the more remote trails, tourism pressure is concentrated and will increase mainly in the existing intensive use areas of the park.

Visitor safety and noise management requires additional attention as visitor numbers increase. It is recommended that attention be paid to the trail conditions, limiting access in winter and reviewing the safety of trail barriers. The use of loudspeaker systems for tour groups should also be prohibited because this impacts on the solitude of the park experience for other users. As the park becomes increasingly well known, demand may increase for adventure recreation such as abseiling and rock climbing. Park authorities will need to anticipate this and manage accordingly.

Plans are being implemented to remove 12 hotels (7 removed already) from within the core zone of Mount Sanqingshan National Park. This, together with a ban on overnight accommodation in the park, will help reduce visitor impacts such as solid and liquid waste. Toilets and visitor facilities appear adequate at present but may need to be kept under review as visitor numbers increase. Currently all waste is physically removed from the park and this practice should be continued. Sensitive management of these facilities and measures to anticipate and mitigate waste management problems need to be put in place. The design of facilities to reduce visual impact should also be considered including siting and paint colour of solar panels, surveillance cameras and toilets.

A particular concern relates to plans to develop additional visitor infrastructure which are noted in the plans for the park. Mount Sanqingshan National Park is a relatively small area which needs to remain intact to provide sufficient area for natural ecological functions to continue. IUCN opposes proposals to construct or upgrade road access in the western part of the park and the construction of any additional cable car systems. Any other development such as that proposed at cable car base stations needs to be carefully monitored and subject to rigorous Environmental Impact Assessment. IUCN welcomes advice that plans for a third cable car have been abandoned as this would have potential impact on the aesthetic values of the park.

IUCN notes that the successful planning and management of infrastructure represents the most important aspect of management of the property in relation to its values. In essence the highest priority should be placed on restricting further infrastructure development to that which is necessary, maintaining any increase in visitor numbers within the capacity of the park, and ensuring that further infrastructure is developed in the existing intensive use areas, so that the values of Mount Sanqingshan National Park remain unspoilt. IUCN recommends that a visitor management plan be developed and implemented as a sub-plan of the Management and Conservation Plan to ensure that the range of relevant issues is given appropriate attention, to plan and regulate any possible development of additional visitor infrastructure and to establish indicators to monitor visitor impacts on the park.

Resident populations

At present, 5,790 people live in a number of villages within the nominated property. The authorities are actively relocating up to 1,000 inhabitants of the park from environmentally sensitive or hazardous areas. The relocation of local communities living in protected areas is a sensitive issue and must be handled in a fair and open manner. IUCN has noted previously that, if local communities are relocated in relation to the management of protected areas, it is essential that this process is negotiated and by consent, and not forced. In the case of Mount Sanqingshan National Park, the process is a negotiated one and those relocated are compensated with free-of-charge new housing, access to alternative land and annual financial payments. Efforts are made to provide alternative livelihoods linked to the park. For example, in the buffer zone village of Guangshan, 30% of the 400 inhabitants are engaged in park related activities.

Controls and standards are in place for village development; however, there is some concern over the mix of building styles and materials. Consistency of design and the use of traditional styles and materials are encouraged in the park's villages and buffer zone gateway communities to ensure harmony with the park's features. Considerable efforts have been made to inform and gain the support of local people to the park and its protection. Village Committees are established and involved in the park although more could be done to enhance participatory approaches to management decision making.

Climate change and forest fires

The park is potentially vulnerable to climate change impacts, particularly due to the vertical zonation of plants and animals and the lack of connectivity of the area to other natural areas. The park is currently free of alien invasive species however this could change under the influence of climate change. Climate change could also bring other threats such as increased forest fires and pests. A monitoring and research programme is recommended to assess climate change impacts and trends and to recommend adaptive strategies. The development of protected areas in the area surrounding the park and connected by appropriate buffer zones and corridors is recommended.

Naturally occurring fires (lightning strikes) are suppressed and the park has been fire free for 20 years. Lightning induced fire is usually accompanied by rain so that these fires rarely spread. Little is known about the fire sensitivities of the forests and their natural fire regimes. As noted above climate change could result in changes to fire frequency and intensity and warrants additional research. Planting of non native fire resistant species should not be used as a strategy to mitigate forest fires as it introduces the threat of alien invasive species.

In summary IUCN considers that the property meets the necessary conditions of integrity as set out in the Operational Guidelines.

5. ADDITIONAL COMMENTS

5.1 Cultural values

Although not nominated as a cultural property IUCN has looked into the cultural values of the property, noting that the nearby property of Huangshan was nominated and inscribed as a mixed property. Of particular relevance is an assessment by Peking University on "The System of Sacred Mountains in China and their Characteristics" (Shen 2001). This assessment notes that two thirds of Chinese territory are mountainous and that Chinese sacred mountains can be divided into four main categories: Five Grand Mountains, Buddhism Sacred Mountains, Taoism Sacred Mountains and Tibetan Sacred Mountains.

Eight of the Chinese sacred mountains noted in this study are included on the World Heritage List or on the Tentative List of the State Party of China, as noted in Table 2. From this table IUCN notes the following points that appear to be important in relation to the nominated property:

- Sanqingshan, considered a Taoism Sacred Mountain by the study, is the only sacred mountain nominated only as a natural property, rather than as a mixed property. This suggests that the cultural values of the property have not been considered in a consistent way compared to past nominations, and that they appear to have been given insufficient attention in the present nomination.

- The study suggests that the values of Sanqingshan as a sacred mountain are comparable or greater than those of Huangshan, which is not considered a Taoism Sacred Mountain and one of the most significant Chinese sacred mountains in the study. Given that Huangshan was inscribed as a mixed property, this further supports the above observation.

IUCN notes that these matters are for the State Party to consider and are not the subject of the present evaluation. If nominated for cultural values, IUCN considers that a link could be made between the nominated property and the nearby Mount Huangshan World Heritage property, but clearly such a proposal in relation to cultural criteria would need to be evaluated by ICOMOS.

5.2 Nomination of properties with similar values

In the context of the present evaluation, IUCN recalls the decision of the Committee at its 16th session (Santa Fé, 1992) regarding the separate listing of similar sites. In that case China nominated two properties of very similar character that were practically adjoining. The 1992 Committee decision notes: "The Committee recognized that the Jiuzhaigou Valley Scenic and Historic Interest Area and the Huanglong Scenic and Historic Interest Area belong to the same ecological unit, despite being under different county administrations. Taking into account the views expressed by members, the Committee proposed that the separate listing of Huanglong and Jiuzhaigou as World Heritage sites be regarded as Phase I of a two-phase process. The Committee recommended that the Chinese authorities initiate Phase II by investigating the land intervening between the Huanglong and Jiuzhaigou sites (including the previously nominated Wanglang Reserve) and consider submitting a revised nomination for inscription as a unified site in the Minshan Mountains. Such a revised nomination would incorporate the Huanglong and Jiuzhaigou sites and other land considered as meeting World Heritage criteria. The Committee also noted that many precedents exist, including transfrontier sites, where the inscription of a large site does not imply the necessity for a single administrative structure." IUCN notes that there seems to have been no follow up to this Committee decision by the State Party of China.

Table 2: Chinese sacred mountains on the World Heritage List or on the Tentative List of China

Name	Classification (Shen 2001)	Category	World Heritage Status
Taishan	Five Grand Mountains	Mixed	Inscribed 1987
Huashan	Five Grand Mountains	Mixed	Tentative List
Shongshan	Five Grand Mountains	Mixed	Tentative List
Emeishan	Buddhism Sacred Mountain	Mixed	Inscribed 1996
Wutaishan	Buddhism Sacred Mountain	Mixed	Nominated for 33 COM (2009)
Putuoshan	Buddhism Sacred Mountain	Mixed	Tentative List
Wuyishan	Taoism Sacred Mountain	Mixed	Inscribed 1999
Sanqingshan	**Taoism Sacred Mountain**	**Natural**	**Nominated for 32 COM (2008)**

IUCN considers the 1992 Committee decision is also relevant to the present nomination and recommends that the Committee recalls this decision and notes that further values of Mount Sanqingshan could warrant recognition on the World Heritage List only if re-nominated as a serial property in combination with similar and nearby sites, in particular Mount Huangshan, which is currently inscribed as a mixed site.

5.3 Tentative Lists and serial nominations

IUCN considers that the present nomination would have been more satisfactory had the values of the nominated property and other nearby properties been considered from the outset in a coordinated way through the consideration of a serial nomination. IUCN considers it is disappointing that the State Party did not consider a serial nomination given both the 1992 Committee decision noted in Section 5.2 above and its innovative and successful serial nomination of the South China Karst, inscribed on the World Heritage List in 2007. IUCN considers that the following two important points can be drawn from this experience which would be helpful in guiding further work by the State Party of China and by States Parties in general:

1) There are a number of other potential sites with similar values currently on the Tentative List of the State Party of China which might be put forward for separate consideration by the World Heritage Committee. IUCN recommends that the Committee invites the Chinese authorities to consider carefully, in consultation with the Advisory Bodies, the future strategy for nominations and the potential to develop a wider range of serial approaches in order to reduce the potential for nominations that do not meet the requirements of the Convention. The serial nomination of the South China Karst, inscribed in 2007, provides a model that could be of value in other inter-provincial nominations within China; and

2) The nomination of Mount Sanqingshan illustrates the importance of considering the full range of natural and cultural values that may be relevant for World Heritage inscription during the planning phases of nominations, and potential synergies with similar nearby sites. IUCN therefore recommends that the Committee takes the opportunity to encourage States Parties to give fuller consideration to rigorous, global comparative analysis and to consider the use of the mechanism of extensions (including serial and transnational extensions) where significant sites with similar and/or complementary values are identified through such analyses.

6. APPLICATION OF CRITERIA

The property has been nominated under criteria (vii), (viii) and (ix). IUCN considers that the nominated property meets criterion (vii) based on the following assessment:

Criterion (vii): Superlative natural phenomena or natural beauty

Mount Sanqingshan's remarkable granite rock formations combine with diverse forest, near and distant vistas, and striking meteorological effects to create a landscape of exceptional scenic quality. The most notable aspect is the concentration of fantastically shaped pillars and peaks. The closest comparison in terms of natural features is nearby Mount Huangshan which has similar values; however its granite features are less fine in detail due to the influence of past glaciation. The natural beauty of Mount Sanqingshan also derives from the juxtaposition of its granite features with the mountain's vegetation enhanced by meteorological conditions which create an ever-changing and arresting landscape. The access afforded by suspended walking trails in the park permits visitors to appreciate the park's stunning scenery and enjoy its serene atmosphere.

IUCN considers the nominated property meets this criterion.

IUCN considers, however, that the nominated property does not meet criteria (viii) and (ix) based on the following assessment:

Criterion (viii): Earth's history, geological and geomorphic features and processes

The nominated property illustrates ongoing geological processes in the development of representative granite mountain landforms and provides an important illustration of columnar dissection of a faulted granite batholith. However, the property's geological and geomorphic values are similar and complementary to those of the nearby Mount Huangshan World Heritage property, and the distinctions are on a relatively specialised basis. Taken alone the property's values are therefore not sufficient to be a distinctive claim for Outstanding Universal Value.

IUCN considers the nominated property, taken alone, does not meet this criterion; however, it might have potential to do so in combination with Mount Huangshan.

Criterion (ix): Ecological and biological processes

The nominated property illustrates ecological and biological processes in the evolution and development of plant communities through its rich assemblage of East Asian – North American disjunct plants. It preserves many relict species in relatively large and healthy populations, and is also an important centre for active speciation. The values of the property in

relation to disjunct and relict species are however too specialised to be a distinctive claim for Outstanding Universal Value, and in any case are already represented by other World Heritage properties, including Mount Huangshan and Mount Wuyi in China.

IUCN considers the nominated property does not meet this criterion.

IUCN notes that the nominated property has a rich flora and fauna, including a number of rare and threatened species, which are not put forward for inscription under the relevant criterion (x), but could also provide a basis for further consideration by the State Party, especially in relation to Mount Huangshan which is already inscribed under this criterion. IUCN also notes that the cultural values of the property appear to have been given insufficient consideration within the nomination.

7. RECOMMENDATIONS AND STATEMENT OF OUTSTANDING UNIVERSAL VALUE

IUCN recommends that the World Heritage Committee adopt the following decision:

The World Heritage Committee,

1. *Having examined Documents **WHC-08/32.COM/8B** and **WHC-08/32.COM/INF.8B2**,*

2. *Inscribes **Mount Sanqingshan National Park, China**, on the World Heritage List on the basis of **criterion (vii)**;*

3. *Adopts the following Statement of Outstanding Universal Value:*

Values

Mount Sanqingshan National Park displays a unique array of forested, fantastically shaped granite pillars and peaks concentrated in a relatively small area. The looming, intricate rock formations intermixed with delicate forest cover and combined with ever-shifting weather patterns create a landscape of arresting beauty.

Criterion (vii) – Superlative natural phenomena or natural beauty: Mount Sanqingshan's remarkable granite rock formations combine with diverse forest, near and distant vistas, and striking meteorological effects to create a landscape of exceptional scenic quality. The most notable aspect is the concentration of fantastically shaped pillars and peaks. The closest comparison in terms of natural features is nearby Mount Huangshan which has similar values; however its granite features are less fine in detail due to the influence of past glaciation. The natural beauty of Mount Sanqingshan also derives from the juxtaposition of its granite features with the mountain's vegetation enhanced by meteorological conditions which create an ever-changing and arresting landscape. The access afforded by suspended walking trails in the park permits visitors to appreciate the park's stunning scenery and enjoy its serene atmosphere.

Integrity

The park boundaries are appropriately drawn to protect the naturalness of the landscape and the areas required to maintain the scenic qualities of the property. The property, although relatively small, includes all of the granite peaks and pillars which provide the framework for its aesthetic values. Boundaries are accurately surveyed and demarcated. The property's integrity is enhanced by the designation of a buffer zone that is not part of the inscribed property.

Requirements for Protection and Management

The property has effective legal protection, a sound planning framework and is currently well managed. The park benefits from strong government support and funding. The park's natural resources are in good condition and threats are considered manageable. There is an effective management regime in place for the park. The key requirement is to manage the property to retain its aesthetic values, and a delicate balance will need to be maintained with the provision of visitor access. The most significant threat relates to the future increase in tourism, and careful and sensitive planning of the related infrastructure and access development is required.

4. *Recommends the State Party, in order to strengthen the integrity and management of the property, to:*

   a) *Develop and implement, in recognition of increasing numbers of park visitors, a visitor management plan as a sub-plan of the Management and Conservation Plan for Mount Sanqingshan National Park. Such a plan should anticipate and address the need to manage the environmental impact of additional visitors, the need to maintain and develop a zoned use plan, and the need to provide appropriate additional visitor facilities in suitable and sensitively selected locations;*

   b) *Ensure that any development of new visitor facility infrastructure in relation to increasing use be limited and subject to rigorous environmental impact assessment. Construction of additional cable car systems or the development of additional roads in the park should not be supported; and*
   c) *Establish research and monitoring programmes*

to monitor visitor numbers and their impacts, and assess and adapt to the impacts of climate change on the park including the potentially adverse impact of fire and invasive alien species on the park's aesthetic and natural values;

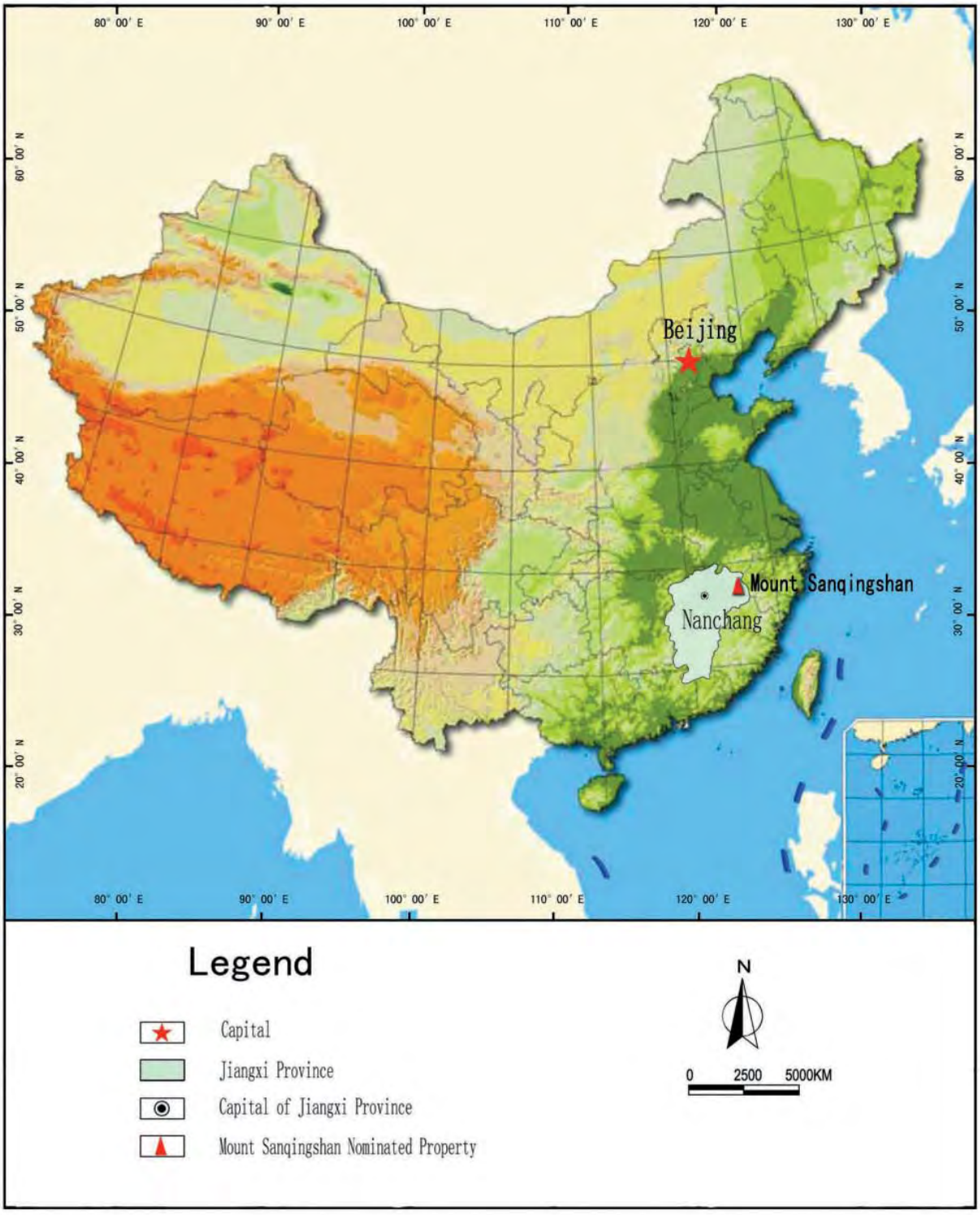
5. *Recalls the decision of the Committee at its 16th session (Santa Fé, 1992) regarding the separate listing of similar sites; and notes that further values of Mount Sanqingshan could warrant recognition on the World Heritage List only if re-nominated as a serial property in combination with similar and nearby sites, in particular Mount Huangshan, which is currently inscribed as a mixed site;*

6. *Notes that there are a number of other potential sites with similar values currently on the Tentative List of the State Party of China which might be put forward for separate consideration by the World Heritage Committee; and therefore invites the Chinese authorities to consider carefully, in consultation with the Advisory Bodies, the future strategy for nominations and the potential to develop a wider range of serial approaches in order to reduce the potential for nominations that do not meet the requirements of the Convention. The serial nomination of the South China Karst, inscribed in 2007, provides a model that could be of value in other inter-provincial nominations within China;*

7. *Further notes that the nomination of Mount Sanqingshan illustrates the importance of considering the full range of natural and cultural values that may be relevant for World Heritage inscription during the planning phases of nominations, and potential synergies with similar nearby sites; and encourages States Parties to give fuller consideration to rigorous, global comparative analysis and to consider the use of the mechanism of extensions (including serial and transnational extensions) where significant sites with similar and/or complementary values are identified through such analyses.*

Map 1: Location of the nominated property

Fig.1.1 Location of Mount Sanqingshan Nominated Property in China



Map 2: Boundaries of the nominated property