IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 21 September 2014

Please note: this is an archived Conservation Outlook Assessment for Wulingyuan Scenic and Historic Interest Area. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Wulingyuan Scenic and Historic Interest Area

SITE INFORMATION

Country:
China
Inscribed in: 1992
Criteria:
(vii)

Site description:
A spectacular area stretching over more than 26,000 ha in China's Hunan Province, the site is dominated by more than 3,000 narrow sandstone pillars and peaks, many over 200 m high. Between the peaks lie ravines and gorges with streams, pools and waterfalls, some 40 caves, and two large natural bridges. In addition to the striking beauty of the landscape, the region is also noted for the fact that it is home to a number of endangered plant and animal species. © UNESCO

SUMMARY

2014 Conservation Outlook

Significant concern

The integrity of the property generally, and its natural scenic and aesthetic values in particular, are currently threatened with reduction and loss to an unacceptable degree. Active intervention by management to date has alleviated the problems somewhat, but a much more concerted effort is required to mitigate serious loss of the natural attributes that constitute the outstanding universal value of the property. The principal management focus should be introduction of effective regulatory measures to reduce the excessive development of tourist facilities and to control the overcrowding due to a rapid and continuing increase in visitor numbers. Management must also attend to the threats from air and water pollution, local community land and resource use practices, modification of waterways, and the increased incidence and intensity of flooding and landsliding, occurring both in the property and in the buffer zone.

Current state and trend of VALUES

High Concern
Trend: Data Deficient

The natural landscape and its outstanding scenic and aesthetic values and attributes are severely compromised by excessive and largely unchecked growth of tourist operations and facilities. These impacts are accentuated by the rapid and continuing increase in visitor numbers causing overcrowding in excess of both the physical and social carrying capacity of the property. Consequences of tourism and visitor pressures include loss of natural vegetation and wildlife habitat, disruption of ecosystems and species, reduction of scenic attributes and intrinsic wilderness values, and lessening of visitor satisfaction.

Overall THREATS

Low Threat

The threat from rapid and unchecked tourism growth and burgeoning visitor numbers remains the greatest challenge for managers. It calls for a greater level of management intervention to reduce the impacts on the natural values of the property from continuing urbanization and commercial development. Also of considerable concern is threat from pollution of air and water, some of which is a consequence of tourism development. Additional but lower threats originate from within the local community relating to agricultural and other land uses, and from modification to waterways and land surfaces, which is contributing to increased hazards from high-magnitude, low-frequency events, particularly flooding and landsliding.

Overall PROTECTION and MANAGEMENT

Some Concern

There are some serious deficiencies in management of the property. That of greatest concern relates to the lack of capacity to enforce laws and regulations, especially to control rampant tourism development. Management authorities have failed to maintain a proper balance between retention of the outstanding natural value of the property and the pressures of mass tourism leading to urbanization and commercialization of significant parts of the property. Remedying this unsatisfactory situation calls for a greater level of management intervention to reduce the impacts on the natural values of the property from continuing insufficiently regulated growth in tourism. Another significant problem concerns the myriad of agencies involved in decision-making and the complex and unworkable bureaucracy, which leads to improperly planned and un-coordinated action.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **An extensive and spectacular landscape of majestic quartz sandstone peaks**
  Criterion:(vii)

  The quartz sandstone peak forest landscape in Wulingyuan consists of more than 3,000 sandstone columns and peaks, presenting a spectacle unlike any other of its kind in the world. Between the peaks lie ravines and gorges with streams, pools and waterfalls. There are more than 40 caves many containing speleothems, and two huge natural stone bridges, one of which rises 357 m above the valley floor. The diverse ecological systems and rare plant and animal resources add to the outstanding beauty (IUCN Nomination evaluation 1992; SP Periodic Report 2002; WHC website, retrieved 2014).

Other important biodiversity values

- **Diversity of ecosystems with rare, endangered and relict species.**

  Wulingyuan was a refuge for many ancient species of flora and fauna during the Quaternary glaciations. It is home to some 3 000 species of tropical, subtropical and temperate plants, including 600 spp. of woody plants. There are116 species of 50 families of terrestrial vertebrates. Globally endangered animals include the Chinese giant salamander, Chinese water deer, Asiatic wild dog and Asiatic black bear (IUCN Nomination evaluation 1992; SP

Periodic report 2002).

Assessment information

Threats

Current Threats

Low Threat

Of greatest concern is explosive growth of tourism in the 20 years since inscription of the property leading to excessive development of facilities, with increased urbanization and commercialism. Despite some management improvements, water and air pollution remain high threats. Threats of lesser concern relate to modification of river networks and water flows, impacts from local community uses of land and resources, and damage from low-frequency/high-magnitude events especially floods and landslides.

▶ **Tourism/ Recreation Areas**

High Threat
Inside site

Excessive and unchecked development of facilities especially in the decade following inscription of the property. Urbanization and commercialization of key scenic areas and main entrances. Towns developed in the property and villages grew into cities in the buffer zone and surrounding lands. By 2005, five new major tourist roads and a railway line constructed, two cable car lines and a 300m-highglass elevator installed, and 40 new hotels and restaurants built in the property. Serious loss of scenic and aesthetic quality, intrinsic wilderness attributes and traditional cultural values. Considerable localized environmental damage and disruption, including rock blasting, soil erosion, water and air pollution, and forest fragmentation causing plant and animal habitat loss and ecosystem disturbance (IUCN/WHC SOC Report 1998; SP Periodic Report 2002; Huang Liangbin 2006; Zhang 2008; Wei Xiang 2011)

► Tourism/ visitors/ recreation

High Threat
Inside site

Rapid increase from less than one million/yr. in 1992, to 17 million /yr. by 2012. Development of mass tourism operations. Physical and social carrying capacity exceeded, leading to undesirable environmental impacts and loss of visitor satisfaction (IUCN/WHC SOC Report 1998; Huang Liangbin 2006; Wei Xiang 2011).

► Water Pollution

High Threat
Inside site

Direct discharge of sewage and wastewater into waterways from residences, hotels and tourist centres. Fertiliser and pesticide runoff from agricultural lands. Growth of algae with general loss of water quality and reduction of drinking water. Atmospheric pollution and acid rain, especially due to increase in sulphur dioxide levels from burning of coal and of carbon monoxide from vehicle exhausts (IUCN/WHC SOC Report 1998; Huang Liangbin 2006; Wei Xiang 2011).

► Dams/ Water Management or Use

Low Threat
Inside site

Construction of dams and reservoirs for flood control and water uses; dredging of river beds; changes of river courses; constriction of flow discharge due to riverbank protection works and house construction; and filling in of springs (IUCN/WHC SOC Report 1998; Huang Liangbin 2006; Wei Xiang 2011).

► Identity/ Social Cohesion/ Changes in local population and community

Low Threat
Inside site

Tens of thousands of residents in the property (accurate numbers unspecified) with extension of housing and commercial areas causing increased urban development and loss of natural land and ecosystem

disturbance. Sewage discharge and chemical runoff from residential areas and agricultural lands. Illegal hunting and collection of firewood (IUCN/WHC SOC Report 1998; Huang Liangbin 2006; Wei Xiang 2011).

► Avalanches/ Landslides, Storms/Flooding

Low Threat
Inside site

Flooding intensity and frequency increasing due to river course alterations and discharge restrictions. Landslides increasing due to clearing of forests and instability of slopes due to undercutting by road construction (IUCN/WHC SOC Report 1998; Huang Liangbin 2006; Wei Xiang 2011).

Potential Threats

Data Deficient

The current threats are on-going, awaiting further management intervention. There are no specific potential threats to the property.

► Other

Data Deficient
Inside site

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Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

There has been significant wide-spread disturbance of the residential community through re-location and re–housing (SP Periodic Report, 2002). There is expressed concern that traditional cultural practices and values are being lost (XIANG, 2011).

► Legal framework and enforcement

Some Concern

Newly formulated regulations on World Natural Heritage Protection are commendable, but weak enforcement remains a serious problem (Huang Liangbin 2006).

► Integration into regional and national planning systems

Some Concern

Multiple agency management and complex bureaucratic systems are problematic. Private business interests are readily able to exploit public resources (Huang Liangbin 2006)

► Management system

Some Concern

Comprehensive revision of the property management plan in 2005 has improved goals, policies and monitoring in particular. There are still some significant gaps in environmental and tourism management. The administrative framework has improved significantly since 2000 (IUCN/WHC SOC Report 1998; SP Periodic Report 2002; SOUV 2010)

► Management effectiveness

Some Concern

Effectiveness of management is seriously hindered by a myriad of government planning, policy-making and management agencies leading to disparate and un-coordinated goal setting and management direction (IUCN/WHC SOC Report 1998; SP Periodic Report 2002; Huang Liangbin 2006; Zijun Tang 2011)

► Implementation of Committee decisions and recommendations

Some Concern

1. Manage tourism sustainably in face of rapid increase in facilities – many buildings and tourist facilities demolished, improved waste management systems installed, shuttle bus introduced, improved ticketing. 2. Prepare a species conservation status report as basis for inscription under biodiversity

criteria – some lists of species compiled, but no attempt made to assess biodiversity values. 3. Manage the buffer zone for conservation objectives – planned expansion of buffer zone not conducted. Major tourism developments and urbanization in buffer zone and surrounding lands. Extensive re-afforestation of cleared and agricultural land. 4. Seek WH emergency funding for repair of flood damage – not done. (WH Committee decision; IUCN nomination evaluation report; IUCN/WHC SOC Report 1998; SP Periodic Report 2002).

► Boundaries

Data Deficient

Boundaries were considered inadequate in 2002 because “division between Zhanggjiajie Forest Park and the neighbouring Xinglong and Shati townships in Yongding is unreasonable” (Periodic Report, 2003). No further information available.

► Sustainable finance

Mostly Effective

Revenue generation from tourist operations is very significant (SP Periodic Report 2002; Wei XIANG 2011).

► Staff training and development

Mostly Effective

Staff numbers have increased from approx. 500 in 2002 to almost 700 in 2011, but training requires improvement (SP Periodic Report 2002; Wei Xiang 2011).

► Sustainable use

Mostly Effective

Reduction in natural resources and environmental impacts from community agricultural and farming uses continue to be of some concern (IUCN/WHC SOC report 1998; Huang Liangbin 2006).

► Education and interpretation programs

Highly Effective

Apparently active and reasonably effective.

► Tourism and interpretation

Serious Concern

Tourism growth and development remain the most important and problematic areas for management of the property.

► Monitoring

Highly Effective

Monitoring system for environmental conditions, air and water quality, noise pollution, vegetation and ecosystems, animal habitats and species, pests and geological risks has improved markedly in recent years (SP Periodic Report 2002; SOUV 2010).

► Research

Highly Effective

There is an active research program and the results of research are taken into account for improved management (SP Periodic Report 2002).

Overall assessment of protection and management

Some Concern

There are some serious deficiencies in management of the property. That of greatest concern relates to the lack of capacity to enforce laws and regulations, especially to control rampant tourism development. Management authorities have failed to maintain a proper balance between retention of the outstanding natural value of the property and the pressures of mass tourism leading to urbanization and commercialization of significant parts of the property. Remedying this unsatisfactory situation calls for a greater level of management intervention to reduce the impacts on the natural values of the property from continuing insufficiently regulated growth in tourism. Another significant problem concerns the myriad of agencies involved in decision-making and the complex and unworkable bureaucracy, which leads to improperly planned and un-coordinated action.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**
Data Deficient

There is little evidence from available reports that the threats in the buffer zone and surrounding lands are being effectively addressed.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **An extensive and spectacular landscape of majestic quartz sandstone peaks**
High Concern
Trend:Data Deficient

The property’s outstanding scenic and aesthetic values and attributes are severely impacted by unchecked growth of tourist operations and facilities. A rapid increase in visitor numbers is causing overcrowding which exceeds the physical and social carrying capacity of the property. The imbalance between retention of the outstanding natural values of the property and the pressures of mass tourism has created undesirable levels of urbanization and commercialization of significant parts of the property (IUCN/WHC SOC Report 1998; SP Periodic Report 2002; Huang Liangbin 2006; Zhang 2008; Wei Xiang 2011).

Other important biodiversity values

▶ **Diversity of ecosystems with rare, endangered and relict species.**

Wulingyuan was a refuge for many ancient species of flora and fauna during the Quaternary glaciations. It is home to some 3 000 species of tropical, subtropical and temperate plants, including 600 spp. of woody plants. There are116 species of 50 families of terrestrial vertebrates. Globally endangered animals include the Chinese giant salamander, Chinese water deer, Asiatic

wild dog and Asiatic black bear (IUCN Nomination evaluation 1992; SP Periodic report 2002).

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
High Concern
Trend: Data Deficient

The natural landscape and its outstanding scenic and aesthetic values and attributes are severely compromised by excessive and largely unchecked growth of tourist operations and facilities. These impacts are accentuated by the rapid and continuing increase in visitor numbers causing overcrowding in excess of both the physical and social carrying capacity of the property. Consequences of tourism and visitor pressures include loss of natural vegetation and wildlife habitat, disruption of ecosystems and species, reduction of scenic attributes and intrinsic wilderness values, and lessening of visitor satisfaction.

Additional information

Key conservation issues

▶ **Loss of scenic, aesthetic and biodiversity values and attributes from excessive tourism development.**
Local

Mass tourism development including proliferation of facilities and services has led to urbanization that has caused environmental damage and ecosystem disruption.

▶ **Rapidly increasing numbers of visitors to the property.**
Local

Visitor numbers have increased remarkably since inscription of the property, leading to overcrowding that impacts the environment and lowers visitor

satisfaction.

▶ **Air and water pollution**

Local

Air pollution is caused by emissions from coal fires and from vehicle exhausts; water pollution results from improper disposal and treatment of wastes.

▶ **Modification of rivers and water flows.**

Local

Rivers are dammed, diverted and constrained by embankments and buildings.

▶ **Increased flooding and landsliding.**

Local

Floods are increasing in intensity and frequency, especially due to modification of discharges; land sliding is accentuated by bared ground and by road construction.

Benefits

Understanding Benefits

▶ **Outdoor recreation and tourism**

Almost 5 billion yuan in tourist revenue was earned in 2009 – an increase from 2 billion yuan in 2002 (Wei XIANG 2011). A disproportionate amount of revenue benefit is going to local people. Large businesses and tourist operators are benefitting most. Many private companies are exploiting the property which is a public resource (Huang Liangbin 2006). Some hotels are State-owned.

▶ **Commercial wells**

Several dams and reservoirs have been constructed within the property and surrounding catchments. There is better control of flood discharges and reduced impact from flooding on people and property. Hydro energy generation is occurring. There is much improved water supply from

reservoirs for residents and businesses in the property and buffer zone.

▶ **Does management of the site provide jobs (e.g. for managers or rangers)?**

Cash income is available through employment of almost 700 people as staff in the property. Many more local people benefit from tourist revenue generation. The service and construction industries are enhanced by tourist development and the provision of facilities. Subsistence agriculture is permitted in the property. There are improved water supply, energy sources, and waste management systems. Re-housing of displaced people is occurring.

Summary of benefits

Tourist operations generate a very substantial amount of revenue for the property, as well as providing employment, both in the property and in the local business community. Better water management has improved water supply, flood control and generation of energy, which has reduced the dependence on coal for fuel. The local community has benefitted greatly from employment, cash income and the support of sustainable living. There is some concern that traditional cultural practices and values are being lost.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	.		.

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№	References
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5	Wei XIANG 2011.Anon. 2012. Striking development of Wulingyuan Scenic Area over past 20 years. hn.chinanews.com
6	Zhang, C.Z. et al. 2008. Meeting needs equals enhancing satisfaction? Case study of cableway and lift riding in World Heritage site Wulingyuang, China.MMV4 Proceedings-management.
7	Zijun Tang (undated). Tourism and heritage protection: an empirical study on World Heritage site Wulingyuan in China from the perspective of property rights economics. Jishou University.