Mount Taishan

2020 Conservation Outlook Assessment

SITE INFORMATION

Country: China
Inscribed in: 1987
Criteria: (i) (ii) (iii) (iv) (v) (vi) (vii)

The sacred Mount Tai (‘shan’ means ‘mountain’) was the object of an imperial cult for nearly 2,000 years, and the artistic masterpieces found there are in perfect harmony with the natural landscape. It has always been a source of inspiration for Chinese artists and scholars and symbolizes ancient Chinese civilizations and beliefs.

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SUMMARY

2020 Conservation Outlook Finalised on 02 Dec 2020

GOOD WITH SOME CONCERNS

Given the importance of Taishan for the Chinese people, both locally and nationally, there should be long-term, sustainable support for conserving the values of the site. A well-funded and well-staffed management system is in place to deal with the most serious threats to Taishan – the negative impacts of heavy and growing visitation and the danger of wildfires and pest infestation. The existing management system has reported stronger participation of local communities in decision-making and gaining equitable benefits following previous concerns however the degree to which these are substantiated is unknown. The impacts of cable cars on the scenery and visitor experience are continued areas of concern. In recent years, interpretation has been gradually improved, but the content of the interpretation needs to be further strengthened.
FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ Dramatic mountain scenery  

Criterion: (vii)  

With nearly 3 billion years of natural evolution, Mount Taishan was formed through complicated geological and biological processes, which resulted in a gigantic rock mass covered with dense vegetation towering over the surrounding plateau. This dramatic and majestic mountain is an outstanding combination of a beautiful natural landscape dominated by the cultural impacts of thousands of years of human use and valued in turn for its profound influence on Chinese culture. Mount Taishan is one of the most famous sacred mountain of China, with exceptional historic, cultural, aesthetic and scientific value (World Heritage Committee, 2012).

Other important biodiversity values

▶ Rich flora and fauna  

1614 species of higher plants from 775 genus, 191 families occur in the property. The site’s fauna includes 25 species of mammals, 315 bird, 12 reptile and 6 amphibian species (IUCN Consultation, 2017).

Assessment information

Threats

Current Threats  

Low Threat  

The adverse impacts of large, increasing numbers of visitors threaten scenic values and visitor experience but measures have been taken to address this threat. Forest fires and dry conditions threaten natural and scenic values of the property. Additional threats come from the disease infestation of trees and adverse impacts of extreme weather. Cable cars concentrate visitors in vulnerable places and degrade the experience of some visitors, especially those who come as pilgrims. There is a threat of loss of traditional culture and the effects of loss of traditional livelihoods.

▶ Logging/ Wood Harvesting  

(Changes in size and composition of forests)  

Low Threat  

Inside site, scattered(5-15%)  

Outside site

Historical decrease in Pinus forests, due mainly to the conversion to Quercus and mixed forests has occurred in scattered areas in the site. A recent study found that more than two-thirds of the forests in Mount Taishan are in a sub-health or unhealthy state, with a large and increasing number of dead trees having appeared in the site (Meng et al., 2019), although this deterioration may not be solely attributable to forest diseases and pests.

▶ Other Ecosystem Modifications  

(Forest diseases and insect pests)  

High Threat  

Inside site, widespread(15-50%)  

Outside site

Forest diseases and insect pests threaten the ecological environment and scenic values of Taishan (State Party of China, 2003). However, recently efforts have been made in addressing this threat.
Tourist pressures are very heavy, inundating the area during holidays and festivals (UNEP-WCMC, 2011). Pollution resulting from high visitation rates continues has been a problem in the past (IUCN Consultation, 2017). However, the sewage system in the property has now been integrated into the urban sewage pipe network, which has greatly reduced the threat of sewage to the property (IUCN Consultation, 2020). Additionally, Regulations on Ecological Protection of Taishan Scenic Spots was enacted in May, 2018. This regulation document identified from a legal perspective several aspects of eco-protection such as financing, monitoring, management and responsible parties, etc. It underlined the need of ecological restoration and specifies "non-open area and closed rotation area" to address the issue of over visitation (Tai-an Municipal Government, 2018).

A cable car in Zhongtianmen was built in 1983 and ungraded in 2000 and an additional cable car in Taohuayuan was built in 1993. The impact of the cable cars on the environment is being restored and improved after many years, but there is still some residual and ongoing impacts on the landscape of Mount Taishan World Heritage site including significant impacts on the scenic values for which the site is listed due to highly concentrated visitor presence surrounding the cable cars (IUCN Consultation, 2020).

Continual dry weather and man-made actions increase the danger of forest fires (State Party of China, 2003). In the dry season the pine forest is very vulnerable to fire. Preservation and management facilities such as fire control have been inadequate in the past (UNEP-WCMC, 2011). A number of management measures have been undertaken to address the issue, including the restriction areas that can be visited by tourists and delineating the areas open for visitation. Forest fire prevention networks have been established. These measures helped reduce fire risks and resulted in a long period without major fires (IUCN Consultation, 2017). Recent wet weather has reduced this threat to some extent, however the threat remains at a low level.

Relocation of villagers from Taishan and lack of their involvement in decision making, accompanied by perceptions of inequitable distribution of benefits from tourism and associated inadequate compensation could threaten future local support for conservation and protection of the site. Recent efforts towards community participation in the protection of the property have been reported, however the efficacy of these efforts are currently unknown.

Relocation of villagers from Taishan and lack of their involvement in decision making, accompanied by perceptions of inequitable distribution of benefits from tourism has been a long term concern for conservation and protection of the site (Xiang, 2009). Interviews with individuals subject to the relocation programme identified several effects of the relocation programme including the changes to lifestyle and tradition, loss of tourism businesses and revenue, inadequate compensation for relocation, inequitable benefits with some being able to remain and others being relocated as well as a feeling that local residents were better placed as custodians of the site than the conservation professionals (Xiang and Wall, 2016). However, more and more residents are reported to be participating in the protection of
the site through training and publicity efforts on behalf of the management (IUCN Consultation, 2020).

### Overall assessment of threats

<table>
<thead>
<tr>
<th>Threat</th>
<th>Classification</th>
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<tr>
<td>The adverse impacts of large, increasing numbers of visitors threaten scenic values and visitor experience but measures have been taken to address this threat. Forest fires and dry conditions threaten natural and scenic values of the property. Additional threats come from the disease infestation of trees and adverse impacts of extreme weather. Cable cars concentrate visitors in vulnerable places and degrade the experience of some visitors, especially those who come as pilgrims. Finally, although difficult to effectively characterise and quantify within the scope of this assessment, there are a number of potential threats associated with the relocation programme if not managed appropriately.</td>
<td>Low Threat</td>
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### Protection and management

#### Assessing Protection and Management

**Management system**

- **Mostly Effective**

  The Tai'an Municipal Administrative Committee of the Taishan Scenic and Historic Interest Zone is responsible for both the protection and administration of the area. On the basis of multi-disciplinary scientific studies, the Ministry of Urban and Rural Construction and Environmental Protection, the University of Beijing and the Administrative Committee of the Mt. Taishan Scenic Beauty and Historic Interest Zone jointly revised a Management and Development Plan for the zone from 2002-2010 in accordance with the Interim Regulations issued by the State Council. (WCMC, 2011). In 2016, the Master Plan of Taishan National Park was revised by the Management Committee of Taishan. The administrative structure has been modified and the local government function strengthened (IUCN Consultation, 2017).

**Effectiveness of management system**

- **Highly Effective**

  According to the 1998 UNESCO mission to Taishan, at the time of inscription the site was well managed, with considerable effort expended in careful path formation, extensive re-vegetation (83% of the site is now forested), removal of human wastes, encouraging visitors not to litter etc. The administration also was doing a good job of managing around 2.5 million visitors per year, but needed to put more effort into educating visitors about the cultural and natural values of the site (Jing, 1998). In recent years, management agencies have increased and improved the interpretation system in the property, built exhibition halls, carried out various popular science activities, and raised public awareness of World Heritage protection through publicity and education (IUCN Consultation, 2020). In 2005, after the adjustment in the management system of Taishan, more stringent water resources protection and management system has been established following previous concerns (IUCN Consultation, 2017).

**Boundaries**

- **Highly Effective**

  The boundaries of the property and buffer zone are adequate to ensure protection of its World Heritage values (State Party of China, 2003a; 2003b).

**Integration into regional and national planning systems**

- **Highly Effective**

  The property is managed under the regional level. The Shandong People’s Congress issued special Regulations to protect Taishan in 1991 (State Party of China, 2003a; 2003b). The Conservation and Management Regulations on Taishan National Park and Regulations on National Parks of Shandong Province were further revised and improved in 2016 and 2017 (IUCN Consultation, 2017).
**Relationships with local people**

Local people have been relocated with attendant loss of arable land and disruptions to their traditional livelihoods and ways of life. Although they revere the mountain as their mother and are enthusiastic about tourism and have derived some benefits from it as a partial replacement for loss of livelihoods, they have experienced less than equitable roles in decision-making (Xiang, 2009). The Rural Revitalization Strategy of the Chinese government underlines the rural local well-being and revitalization of the rural culture, which may assure more efforts of involving the local villagers in tourism benefits from the heritage mountain (Xiang, 2020).

**Legal framework**

Legal protection is afforded to both natural and historic heritages of Taishan under the state's Cultural Relics Protection Law, Forest Protection Law, Interim Regulations Concerning the Administration of Scenic Beauty and Historic Interest Zones and various local regulations and administrative decrees (WCMC, 2011). Management is considered to be legal, contractual, and traditional (State Party of China, 2003a; 2003b).

**Law enforcement**

Enforcement of relevant regulations is effective overall (IUCN Consultation, 2017).

**Implementation of Committee decisions and recommendations**

As follow-up action to recommendations made by the WH Committee in 1998, the Government of China has pulled down inns scattered under the Jade Emperor Peak, removed the ‘Pavilion Watching Sunrise’ on Watching Sunrise Peak; and (removed 9,000 m² of ‘shabby’ houses (State Party of China, 2003a; 2003b). However, recommendations regarding removal of cable cars have not been adopted.

**Sustainable use**

Controls on tourism and commercial activity in place (such as Regulations and Implementing Rules on Operating Points in Taishan), along with local veneration of the sacred mountain and its importance for Chinese culture and history, could form a basis for sustainable use of the site. However, the current overemphasis on economic benefits over resource conservation could pose some problems (Xiang, 2009). Over visitation during high seasons endangers the sustainability of resource use in the long run and continues to be of concern (IUCN Consultation, 2017).

**Sustainable finance**

Financial resources for the maintenance and protection of Taishan are allocated from the government and supplemented by entrance fees to scenic areas (World Heritage Committee, 2012). Funding is considered adequate, and can maintain the regular protection of the site (State Party of China, 2003a; 2003b). However, no data is available for recent years.

**Staff capacity, training, and development**

In 2017 the staff of the Park comprises 1819 employees: 632 in management, 554 technical and 633 other support personnel (IUCN Consultation, 2017).

**Education and interpretation programs**

The Taishan administration was encouraged to put more effort into educating visitors about the cultural and natural values of the site. The Geopark Museum of Taishan and the Tianwai Village Tourist Center and Taohua Vally Tourist Center built in 2010 provide important educational facilities (IUCN Consultation, 2017).

**Tourism and visitation management**

Taishan is heavily visited. Between 1996 and 2001 annual visitors totaled 2.1 million, including 18,000
foreigners. In 2010 there were 3.96 million visitors, an increase of 11.7% on 2009 (UNEP-WCMC, 2011) and the tourism numbers have maintained these high levels since, with Spring Festival the site even attracted more than half a million visitors in one week in February 2018 (China Daily, 2018). However, the site management has increased capital investment, improved the construction of tourism infrastructure, and increased the experience of tourists. At the same time, the local authority reports to continue to improve the interpretation system in the site, through the construction of exhibition halls and natural and cultural education for tourists (IUCN Consultation, 2020). Additionally, an online booking system with time-limited reservations, has increased the control of tourist access to the sunrise area in Daiding (the peak), improving tourist satisfaction and avoiding irreversible damage to the site (IUCN Consultation, 2020). Cable cars are the vital issue to address the over-crowding problem on the mountain top during the high season, with calls having been made to remove or reduce operation of the ‘front’ cable car to a strictly designed time-table to control visitor numbers and to avoid disrupting the visitors who choose to climb the mountain on foot (Xiang, 2020).

- **Monitoring**

  Mostlly Effective

  As of 2003, there was a regular monitoring program for air and water quality, plant diseases and pests and the condition of famous trees (WCMC, 2011). Between 1987 and 2003, 8 monitoring exercises were carried out (cultural relics, famous trees, forest diseases, wild plants, animals, microorganisms, forest resources and heritage). In 2001, a WH Administrative Office was created in Taishan to co-ordinate regular monitoring and a ‘Heritage Data Base’. The objective is to “turn discontinuous to continuous monitoring”. Primary monitoring indicators include: (i) air and waste gas analysis; (ii) water quality; (iii) plant diseases & insect pests; and (iv) the state of famous trees. (State Party of China, 2003a; 2003b). No more recent information is available.

- **Research**

  Highly Effective

  The Ministry of Urban and Rural Construction and Environmental Protection of Beijing University and the Historical Interest Zone Administrative Committee have collectively studied the geology, landforms, animals and cultural relics, as well as forest fires, pine disease and forest regeneration to provide a scientific basis for managing the area (WCMC, 2011). An analysis of spatio-temporal landscape patterns between 1986 and 2001 was carried out, showing major changes in forest cover and composition (Guo, 2006). Research in 2009 used Taishan as a case study to examine the implications of World Heritage designation for resource conservation, visitor experience, and local well-being (Xiang, 2009). More recently, research has focused on early warning of major forest pests (Shen 2012), biodiversity (Wang 2013), landscape forest management (Guo 2014; Meng et al., 2019) and Quaternary glaciers in Taishan (Zhang 2012). Also, Xiang (2020) is conducting follow-up research on the sustainable local well-being of this heritage mountain with Rural Revitalization as a Chinese national strategy in consideration.

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**Overall assessment of protection and management**

Mostly Effective

The importance of Taishan as a major sacred site has ensured that the mountain has been fairly well protected for its natural, cultural, and spiritual values. A well-staffed and well-funded administration with clear legal authority means that the site has received protection that has addressed some major threats. However, overcrowding during peak seasons still remains a problem. The management also needs to involve local communities more in its decision-making, but is expected to do so in the future.

- **Assessment of the effectiveness of protection and management in addressing threats outside the site**

  Data Deficient

  Other than impacts of management on four villages outside the site, three of which consist mostly of communities relocated from Taishan, there is little information on the effectiveness of protection and management in addressing threats outside the site. The management has provided some benefits to these villagers, which has helped maintain their support for nature conservation on Taishan, but there is little evidence to show villagers were involved in decision-making on relevant matters (Xiang, 2009) or that conservation goals fo the site are aligned with the values of the local community with respect to their livelihoods and cultural traditions (Xiang and Wall, 2016). Although
it is reported that local involvement in such processes is to be enhanced in the future (IUCN Consultation, 2020).

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ Dramatic mountain scenery

The high regard in which Taishan is held by local communities and the Chinese people insures that values as one of China’s most important sacred mountains have been largely maintained and enhanced, with the exception of cable cars that have left scars on the landscape and can interfere with those visiting the site as pilgrims as well as other some visitors’ tourism experiences. Since inscription numerous shacks, houses, and unsightly structures have been removed, improving the scenery and other measures have been taken to add protection to the site.

Summary of the Values

▶ Assessment of the current state and trend of World Heritage values

Overall the high regard in which Taishan is held by local communities and the Chinese people insures that its aesthetic values as one of China’s most important sacred mountains have been largely maintained and enhanced, with the exception of unsightly cable cars that have left scars on the landscape and can interfere with those visiting the site as pilgrims as well as other some visitors’ tourism experiences. Since inscription numerous shacks, houses, and unsightly structures have been removed, improving the state of the site.

▶ Assessment of the current state and trend of other important biodiversity values

No comprehensive information is available on the current state of the site's flora and fauna. However, some species have been in decline, including for example the endemic plant species of Sorbus taishanensis and Rhus taichanensis. However, measures have been put in place to address the issue (IUCN Consultation, 2017). Another improvement through the Chilin Fish re-introduction programme has ensured that freshwater biodiversity and water quality in the site has improved, albeit through artificial cultivation (IUCN Consultation, 2020).

Additional information

Benefits

Understanding Benefits

▶ Cultural and spiritual values, History and tradition

The natural and cultural heritage of Taishan enshrines cultural and spiritual values central to Chinese culture and history, having to do with the identity, beliefs, and ideals of the Chinese people.
Factors negatively affecting provision of this benefit:
- Overexploitation: Impact level - High, Trend - Increasing

**Cultural and spiritual values, Sacred natural sites or landscapes**

Taishan itself is the most important sacred mountain in China and is regarded by local villagers as their mother. The mountain also has within it numerous smaller sacred sites and features, such as trees, rocks, and temples, which provide cultural and spiritual benefits to local people and visitors.

**Health and recreation, Outdoor recreation and tourism**

As China's most important sacred mountain and repository of Chinese history and civilization, Taishan is one of the most important tourist sites in China and provides major economic, spiritual, cultural, and historical benefits to visitors and local people. The high visitation due to its place in Chinese civilization and history insures sustainable financing for management of the site.

Factors negatively affecting provision of this benefit:
- Overexploitation: Impact level - High, Trend - Increasing

**Summary of benefits**

Conservation of nature at Taishan protects a major sacred mountain highly valued for its importance in Chinese history and civilization and its role as a repository of priceless cultural relics. The cultural and spiritual values enshrined in the mountain sustain local cultures and communities and remind the Chinese people of their cultural and natural heritage. The high visitation of tourism that Taishan attracts provides economic benefits for local people and ensures that management will have sustainable funding for taking proper care of the site.

**Projects**

**Compilation of active conservation projects**

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<th>Organization</th>
<th>Brief description of Active Projects</th>
<th>Website</th>
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<td>1</td>
<td>Tai'an Municipal Administrative Committee of the Taishan Scenic and Historic Interest Zone</td>
<td>The Ministry of Urban and Rural Construction and Environmental Protection, Peking University, TsingHua University and Administrative Committee of Taishan National Park have collectively studied the geology, landforms, cultural relics, forest regeneration and disease control, natural disaster, water harnessing and other protection and management goals and environmental elements of the property, to provide a scientific and important basis for rational utilization and effective management of the site. The Tai'an Municipal Administrative Committee of the Taishan Scenic and Historic Interest Zone, which is responsible for both the protection and administration of the area, should be consulted as to whether any of these or other projects are on-going.</td>
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REFERENCES

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<tr>
<td>4</td>
<td>IUCN Consultation. (2020). IUCN Confidential Consultation- Mt. Taishan, China.</td>
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<td>6</td>
<td>Meng, Y., Cao, B., Dong, C., &amp; Dong, X. (2019). Mount Taishan forest ecosystem health assessment based on forest inventory data. Forests, 10(8), 657.</td>
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