IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 08 November 2017

Please note: this is an archived Conservation Outlook Assessment for China Danxia. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

China Danxia

SITE INFORMATION

Country:
China
Inscribed in: 2010
Criteria:
(vii) (viii)

Site description:
China Danxia is the name given in China to landscapes developed on continental red terrigenous sedimentary beds influenced by endogenous forces (including uplift) and exogenous forces (including weathering and erosion). The inscribed site comprises six areas found in the sub-tropical zone of south-west China. They are characterized by spectacular red cliffs and a range of erosional landforms, including dramatic natural pillars, towers, ravines, valleys and waterfalls. These rugged landscapes have helped to conserve sub-tropical broad-leaved evergreen forests, and host many species of flora and fauna, about 400 of which are considered rare or threatened. © UNESCO

SUMMARY

2017 Conservation Outlook

Good

The conservation outlook for the property is generally good. The current state of the values of the property and the trend are respectively satisfactory and stable. The serial nature of the property, with its six widely separated component parts, is complex but the authorities must be commended on the degree to which they have provided a uniformly consistent legal and institutional framework for protection and management. Existing staff and other management resources appear to be adequate in coping with current factors affecting the property and low levels of threat. Protection of the property is assisted by its remoteness from development and the robust character of the geological landscape. There is a need to ensure protection of the natural forest vegetation and biodiversity, which contribute significantly to the scenic and aesthetic qualities and to the on-going land forming processes. It is necessary to be vigilant in the face of an inevitable increase in visitor numbers and tourism development, as well as pressures from rural development, and astute management intervention will be required to avoid any undesirable impacts. Continuously increasing the level of international understanding of the Danxia geological landscape, through increased collaborative research and scientific publication and wider promotion campaigns, will be important.

Current state and trend of VALUES

Good
Trend: Stable

The current state of the outstanding scenic and aesthetic and geological values of the property is satisfactory and the trend is stable. Remoteness of the property from urban and industrial development and the inherently robust character of the geological landscape combine to provide for a strong degree of integrity for the serial property despite its geographical discontinuity and complexity. All six sites in the property have strong legal protection and active

management sufficient to cope with existing and foreseen environmental and human pressures. There is a need for vigilance in the face of the real prospect of substantially increased tourism development and pressures for rural development and construction. Management must also give due attention to protection of the natural forest habitats that add significantly to the overall visual and aesthetic values of the property and are vital to maintain the on-going natural geomorphological processes. Protection of the geological values of the property would be enhanced through greater international scientific exposure of the Danxia formation and landscapes, as well as development of geological monitoring indicators.

Overall THREATS

Low Threat

Overall the threats to the property are at a low to very low level, though in some cases it is difficult to judge because of limited available information. It appears that the more notable threats are from pressure of township and associated infrastructure development, water pollution, construction of tourism facilities and from the growth of visitor numbers and tourism. Threats are generally higher in the buffer zone than inside the property. Existing management capacity appears to be sufficient to respond adequately to current threats.

Overall PROTECTION and MANAGEMENT

Mostly Effective

Overall, the protection and management of the property can be assessed as mostly effective and there are no significant concerns. This is an extremely complex serial property comprising six components in six provinces scattered across some 1700 km of Southeast China. The effort made to provide uniformly effective legal, institutional and management mechanisms for protection of the Outstanding Universal Value throughout the property is highly commendable. On-going protection effort should give emphasis to managing the growing pressure from tourism, and to the need to give greater international scientific exposure to China Danxia though collaborative research and wider publication.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **An exceptionally beautiful landscape**
  Criterion:(vii)

  China Danxia is an impressive landscape of great natural beauty. Red conglomerate and sandstone have been shaped into spectacular peaks, pillars, cliffs and imposing gorges, together with winding rivers and majestic waterfalls, within a sub-tropical forest setting (SoOUV, 2010).

- **Oustanding geological features with great variety of distinctive landforms**
  Criterion:(viii)

  The term "Danxia" describes the physical landform characterized by steep cliff slopes and developed from uplifted continental (terrestrial) reddish conglomerate and sandstone, also known as "red-beds". China Danxia is the world’s most outstanding example of this landform. Each of the six component parts of this serial property displays landforms characteristic of the different stages of Danxia landform development, and collectively they illustrate the full extent of geomorphic evolution of the Danxia formation in southeastern China and form a complete sequence of landform evolution (SoOUV, 2010).

Other important biodiversity values

- **Intact sub-tropical forest remnants protecting significant biodiversity values.**

  The rugged landscapes in the property protect sub-tropical broad leaved evergreen forests and a range of wildlife habitats important for endemic, endangered and threatened species of conservation significance. The forests are mostly secondary, comprising 23 different subtropical vegetation types, and include many ancient trees. In total the property contains 5,772 vascular plant species, more than 40 of which are endemic to the property and more than 600 endemic to China. Of the 34 species on the IUCN Red Data List, two are critically endangered, seven are endangered and 13 are vulnerable. Among the fauna are 836 vertebrates and some 3,000 insect species. Excluding insects, there are 47 species endemic to China and 66 species are listed by CITES. The eastern sites lie within a WWF Global 200 priority ecoregion and a WWF/IUCN Centre of Plant Diversity (People’s Republic of China, 2008a; UNEP/WCMC, 2012).

Assessment information

Threats

Current Threats

Low Threat

Overall the threats to the property are at a low to very low level, though in some cases it is difficult to judge because of limited available information. It appears that the more notable threats are from pressure of township and associated infrastructure development, water pollution, construction of tourism facilities and from the growth of visitor numbers and tourism. Threats are generally higher in the buffer zone than inside the property. Existing management capacity appears to be sufficient to respond adequately to current threats.

► Invasive Non-Native/ Alien Species

Low Threat
Inside site, extent of threat not known
Outside site

Alien pest species are reported but specifics are lacking. Nonetheless, the local governments have been developing measures to prevent the invasion. (People’s Republic of China, 2008a; 2008b; Nomination document, 2010).

► Housing/ Urban Areas

Low Threat
Inside site, localised(<5%)
Outside site

Villages and small towns are common, but the development pressure appears to be mainly in the buffer zone (People’s Republic of China, 2008a). Impacts include visual impacts on the landscapes and environmental fragmentation (IUCN Consultation, 2017).

► Fire/ Fire Suppression

Low Threat
Inside site, localised(<5%)
Outside site

Wildfires occur during the dry season and at times of drought. Early-warning, preparedness and prevention systems are in place (People’s Republic of China, 2008a; 2008b; Nomination document, 2010).

► Tourism/ Recreation Areas

Low Threat
Inside site, localised(<5%)

There has been a modest increase in annual tourist numbers with steady growth continuing. Current numbers are well below the physical and social carrying capacity, though some congestion occurs at the most popular scenic spots in holiday seasons. Management capacity is sufficient to cope with current tourism pressures, but on-going vigilance is required. A skyway was built in Xiangbi Mountain and Paiya Peak of Longhushan for tourism in 2016 and 2017. (IUCN, 2010; People’s Republic of China, 2008a;

http://www.yingtan.gov.cn/dtxx/gzdt/ztxq/201707/t20170719_430639.htm; http://www.yingtan.gov.cn/dtxx/zwyw/201609/t20160929_400617.htm; Li Hangfei, 2016).

► Water Pollution

Low Threat
Inside site, localised(<5%)
Outside site

There are some factories, causing effluents in Danxiashan of Guangdong province. The mining factories on Fuyi River upstream of of Langshan, Hu’nan province cause the riverbed pollution and ecological damage. (http://www.mep.gov.cn/gkml/hbb/qt/201601/t20160114_326277.htm; Chen Zhijun, Xu Feixiong, Liu Jiayi,2016). Air pollution is low in most areas of the property (IUCN Consultation, 2017).

► Logging/ Wood Harvesting, Fishing / Harvesting Aquatic Resources, Livestock Farming / Grazing, Poaching

Low Threat
Inside site, localised(<5%)
Outside site

Subsistence living and resource use occur at most sites but with variable degrees of threat (People’s Republic of China 2008a). Impacts include expansion of agricultural areas (IUCN Consultation, 2017).

Potential Threats

Data Deficient

The mountainous terrain is susceptible to geological and weather event, such as the occurrence of landslide and rockfall and stream flooding. The level of threat is difficult to determine from existing information.

► Avalanches/ Landslides

Low Threat
Inside site, localised(<5%)

The mountainous terrain is susceptible to the occurrence of landslide, rockfall, unstable rock collapses and stream flooding. There has been some

localised monitoring and management intervention (People’s Republic of China, 2008a; 2008b; Jiang Fuwei, Qiu yan, Li Chunling, 2016).

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

People from the local communities are involved in management and have a good understanding of the World Heritage status (People’s Republic of China, 2008a). However, there is a lack of measures aimed at development of local communities (IUCN Consultation, 2017).

► Legal framework

Mostly Effective

All land in the property is State-owned. Protection status varies from site to site but includes national nature reserve, national forest and geopark. The property has protection under the relative laws and regulations of national, provincial and local governments (People’s Republic of China, 2008a; 2008b; UNEP/WCMC, 2012).

► Enforcement

Mostly Effective

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

► Integration into regional and national planning systems

Mostly Effective

The development and management of China Danxia are planned in a thirteenth five-year plan. Local governments put the site’s development and protection as a priority status. It plays an important role in the development of the local areas and the whole country (The thirteenth five-year plan, 2017).

► Management system

Mostly Effective

A management plan exists for each of the sites in the serial property and there is an integrated management plan for the property as a whole (People’s Republic of China, 2008a; 2008b). A Committee has been set up for the entire property, under the dual leadership of MOHURD and provincial government (IUCN Consultation, 2017).

► Management effectiveness

Mostly Effective

Generally, there appear to be adequate long-term legislative, regulatory, institutional and traditional protection and management mechanisms for safeguarding the inscribed values of the property at national, provincial and local level. (People’s Republic of China, 2008a; 2008b; IUCN Consultation, 2017).

► Implementation of Committee decisions and recommendations

Mostly Effective

At the time of inscription, the WH Committee requested the State Party to ensure the effective long-term management and protection of the property and meet integrity requirements; to focus on the protection and effective management of the important biodiversity values; to support the organization of international meetings and to continue scientific research regarding the Danxia Landform; and to make available in translation key scientific studies on the topic of the China Danxia and to actively assist the further development of international scientific knowledge of the China Danxia phenomena and red-beds sandstone geomorphology more generally. The 1st International Symposium on Danxia Landform was convened in 2009, supported by the IUGS and IAG and several scientific institutions in China, intended to strengthen research and scientific collaboration on Danxia and similar landforms throughout the world (34COM.8B.1; Xiao Shizen et al., 2009). The 3rd International Symposium on Danxia Landform was convened in 2015 and showed new international development and achievements in the field of Danxia landform research (IUCN Consultation, 2011). Cooperation in the field of research was also established with the USA, some European

countries and Australia (IUCN Consultation, 2017).

▶ Boundaries

Mostly Effective

Boundaries of the property and the buffer zones for each of the component parts are well demarcated and logical with respect to ensuring integrity (IUCN, 2010; People’s Republic of China, 2008a; 2008b).

▶ Sustainable finance

Mostly Effective

Up to now, the funding for protection, management and development has been sufficient. All components of the World heritage site are provided with adequate funds (Nomination document, 2010).

▶ Staff training and development

Mostly Effective

There are enough qualified staff employed at each of the sites in the property, and training opportunities are available (IUCN, 2010; People’s Republic of China, 2008a; 2008b).

▶ Sustainable use

Mostly Effective

Subsistence lifestyles and scientific uses are supported in and around the property (People’s Republic of China, 2008a).

▶ Education and interpretation programs

Highly Effective

Programs are in place and every component site has its own exhibition halls for education and interpretation. (People’s Republic of China, 2008a; 2008b). The 2nd of August of every year is celebrated as "China Danxia World Heritage Day", with all component sites holding "Heritage Week" promotional activities (IUCN Consultation, 2017).

► Tourism and visitation management

Some Concern

Tourism management is guided by management plans. Some interpretation programs and methods could benefit from up-grading. However, it’s important to manage the growing pressure from tourism (People’s Republic of China, 2008b; Li Hangfei, 2016).

► Monitoring

Mostly Effective

Baseline condition assessment and monitoring of change for natural values and for species, as well as for geological disasters and water quality, have been established in key areas. Every component site has its own monitoring indicators and departments. (People’s Republic of China, 2008a; 2008b; UNEP/WCMC, 2012; Nomination document, 2010).

► Research

Highly Effective

There is a long history of national research in Danxia geology and active research programs are in place or planned. The property has a long history of cooperation with the National Danxia Landform Research Society and the Chinese Geographical Society-Red and Danxia Research Working Group. In recent years the property also received support from the International Association of Geographers (IAG), and signed a cooperation agreement to establish a research programme. In recent years research cooperation has also been ongoing with the St. Louis University, the University of Oxford, University of Tokyo and other foreign schools, with three doctoral thesis and a master's thesis completed on Danxia landforms. The University of Bergen in Slovakia and the University of Belgrade in Serbia also carry out scientific research oat the property. Since the inscription of the property on the World Heritage List, more than 10 articles have been published in international journals and 5 master's thesis and doctoral thesis 8 were completed. (IUCN Consultation, 2017).

Overall assessment of protection and management

Mostly Effective

Overall, the protection and management of the property can be assessed as mostly effective and there are no significant concerns. This is an extremely complex serial property comprising six components in six provinces scattered across some 1700 km of Southeast China. The effort made to provide uniformly effective legal, institutional and management mechanisms for protection of the Outstanding Universal Value throughout the property is highly commendable. On-going protection effort should give emphasis to managing the growing pressure from tourism, and to the need to give greater international scientific exposure to China Danxia though collaborative research and wider publication.

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

Mostly Effective

On available evidence, there appears to be a relatively seamless transition between management inside and outside the property. All key stakeholders in the surrounding communities support the World Heritage status of the property.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ An exceptionally beautiful landscape

Low Concern
Trend:Stable

The current state of the outstanding scenic and aesthetic values of the property is satisfactory and the trend is stable. All six sites in the serial property have strong legal protection and active management sufficient to cope with existing environmental and human pressures. There is a need to

be vigilant especially regarding the real prospect of a substantial increase in the numbers of visitors and growing tourism development, as well as rural development and associated increase in construction. Overuse of some scenic spots and excessive facilities development could cause localised physical damage and undesirable visual intrusion detrimental to the scenic quality of the beautiful natural landscape and to the degree of visitor satisfaction. Management must also give due attention to protection of the natural forest habitats (IUCN, 2010; People’s Republic of China, 2008a).

► Oustanding geological features with great variety of distinctive landforms

Good
Trend:Stable

The current intact state of the outstanding geological and landform values of the property and the stable trend give little cause for concern. The six component parts of the property are all remotely located in mountainous terrain so are well buffered from areas of urban and industrial development. The geological values are inherently robust and resilient against agents of disturbance and change. These characteristics of remoteness and resilience provide for a strong degree of integrity for the serial property, despite its geographical discontinuity and complexity. Protection of the geological values of the property would be enhanced through greater international scientific exposure and wider promotion of the Danxia formation and landscapes. To date, the State Party has responded well to the recommendations of the Committee and IUCN in this regard (IUCN, 2010; People’s Republic of China, 2008a; 34COM.8B.1; Xiao Shizen et al., 2009). Outstanding geological features of the property remain well preserved (IUCN Consultation, 2017).

Summary of the Values

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

Good

Trend: Stable

The current state of the outstanding scenic and aesthetic and geological values of the property is satisfactory and the trend is stable. Remoteness of

the property from urban and industrial development and the inherently robust character of the geological landscape combine to provide for a strong degree of integrity for the serial property despite its geographical discontinuity and complexity. All six sites in the property have strong legal protection and active management sufficient to cope with existing and foreseen environmental and human pressures. There is a need for vigilance in the face of the real prospect of substantially increased tourism development and pressures for rural development and construction. Management must also give due attention to protection of the natural forest habitats that add significantly to the overall visual and aesthetic values of the property and are vital to maintain the on-going natural geomorphological processes. Protection of the geological values of the property would be enhanced through greater international scientific exposure of the Danxia formation and landscapes, as well as development of geological monitoring indicators.

► **Assessment of the current state and trend of other important biodiversity values**

Low Concern

Trend: Stable

Although inscribed for its outstanding scenic and geological values, the China Danxia property also has biodiversity values which are of national and regional significance. These values should be well protected within the context of World Heritage protection for the property, but elements of flora and fauna are readily lost and difficult to restore so more effective on-going management intervention is required.

Additional information

Benefits

Understanding Benefits

►

Legal subsistence hunting of wild game, Fishing areas and conservation of fish stocks, Traditional agriculture

Subsistence activities such as hunting, farming, fishing and firewood collection are permitted by regulation, and traditional customs and religious beliefs are respected and maintained. There is some threat from modernization.

▶ **Outdoor recreation and tourism**

Commercial tourism operations are growing modestly but steadily throughout the property and the associated economic opportunities are of great benefit to residents both in the property and the buffer zone. It is important that the level of development is maintained within the physical and social carrying capacity of the property and that the excesses of mass tourism are avoided.

▶ **Soil stabilisation, Water provision (importance for water quantity and quality)**

The protection of the property is highly significant for control of soil erosion, land stability, forest conservation and the maintenance of water quality.

▶ **Importance for research**

Danxia geology is nationally renowned in China based on long-established research. China has a major role to play in making this information available to the wider international scientific community.

Summary of benefits

The China Danxia property makes a major contribution to maintaining the traditional lifestyles, customs and beliefs of the local communities and to enhancing their socio-economic standing through employment opportunities and income generation either directly in the property or indirectly, through commercial tourism operations in particular.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Sun Yat-sen University	From: 2013 To: 2018	Collection of basis data from the field of Danxia geomorphology science, and development of a database and shared resource platform about Danxia geomorphology.
2	Guizhou Normal University	From: 2012 To: 2018	Scientific support , systematic monitoring, reporting, scientific research and other work plans to guide the annual work.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Local site management and national authorities.	Research and investigation of tourism management planning and intervention approaches, especially in anticipation of increased tourism development.	
2	Local and national scientists	Combined research projects with scientists and collaboration with scientific organizations outside China, and publication of research results in the international English language scientific literature.	

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