IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 15 June 2014

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

The Dolomites

SITE INFORMATION

Country:
Italy
Inscribed in: 2009
Criteria:
(vii) (viii)

Site description:
The site of the Dolomites comprises a mountain range in the northern Italian Alps, numbering 18 peaks which rise to above 3,000 metres and cover 141,903 ha. It features some of the most beautiful mountain landscapes anywhere, with vertical walls, sheer cliffs and a high density of narrow, deep and long valleys. A serial property of nine areas that present a diversity of spectacular landscapes of international significance for geomorphology marked by steeples, pinnacles and rock walls, the site also contains glacial landforms and karst systems. It is characterized by dynamic processes with frequent landslides, floods and avalanches. The property also features one of the best examples of the preservation of Mesozoic carbonate platform systems, with fossil records. © UNESCO

SUMMARY

2014 Conservation Outlook

Good with some concerns

Some concern exists about the management: a management system for the whole serial property has not been developed yet nor implemented. However, the work on this continues and the management system should be defined by 2016. Tourism activities and infrastructure within the site and in its surroundings represent a certain threat to the site's values. However, these threats tend to be highly concentrated in certain areas. But without a clear tourism strategy and an effective management system (including a monitoring system) some concerns about the conservation of the site's values remain.

Current state and trend of VALUES

Low Concern
Trend: Stable

The conservation of the site's landscape and its outstanding natural beauty are of some concern due to tourism activities and infrastructure within the property and in its surroundings. It is too early to evaluate a trend of the values. The geological values of the site are currently well preserved and will most likely be maintained in the foreseeable future.

Overall THREATS

Low Threat

Human activities and infrastructure within and surrounding the site, in particular those linked to tourism, represent a relatively high threat to the site's values, and in particular to the exceptional beauty of its landscape. However, these threats tend to be highly concentrated in some areas. Currently, there are only very low potential threats.

Overall PROTECTION and MANAGEMENT

Some Concern

The necessary measures to establish an overall management system for the entire property are ongoing but the management is not fully functional yet. The Overall management strategy should be complete by 2016. It will be important to effectively implement and resource the overall management strategy, sustainable tourism strategy, and monitoring system.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **Spectacular mountain landscape**
Criterion:(vii)

The Dolomites are widely regarded as being among the most attractive mountain landscapes in the world. Their intrinsic beauty derives from a variety of spectacular vertical forms such as pinnacles, spires and towers, with contrasting horizontal surfaces including ledges, crags and plateaux, all of which rise abruptly above extensive talus deposits and more gentle foothills. A great diversity of colours is provided by the contrasts between the bare pale-coloured rock surfaces and the forests and meadows below. The mountains rise as peaks with intervening ravines, in some places standing isolated but in others forming sweeping panoramas. Some of the rock cliffs here rise more than 1,500 m and are among the highest limestone walls found anywhere in the world. The distinctive scenery of the Dolomites has become the archetype of a “dolomitic landscape” (SoOUV 2009). The serial property comprises a diversity of landscapes that are spectacular not only because of their physical characteristics, but which also responds to natural changes in light to create views of great natural beauty (IUCN evaluation, 2009).

► **Extremely varied limestone formations**
Criterion:(viii)

The Dolomites are the classic site for the development of mountains in dolomitic limestone. The area presents a wide range of landforms related to

erosion, tectonism and glaciation. The quantity and concentration of extremely varied limestone formations is extraordinary in a global context, including peaks, towers, pinnacles and some of the highest vertical rock walls in the world (SoOUV 2009).The property also contains interesting glacial landforms, as well as karst systems. A further key feature is the dynamic nature of the landscape creating frequent landslides, floods, and avalanches (IUCN evaluation, 2009).

► Geological and fossil values of international significance

Criterion:(viii)

The geological values are of international significance notably the representation of a large part of the Mesozoic Era in a continuous manner, as well as some sequences of earlier and later stratigraphy. The property contains important reference areas for the Triassic period and one of the best examples of the preservation of Mesozoic carbonate platform systems, including accompanying fossil records of reef-building organisms (notably the evidence of Mesozoic carbonate platforms, or “fossilized atolls"). As a whole, the Dolomites permit the accurate reconstruction of the evolution of a passive continental margin and successive phases of continental collision and evolution over more than 250 million years (SoOUV 2009, IUCN evaluation 2009).

► Long history of geological studies

Criterion:(viii)

The scientific values of the property are also supported by the evidence of a long history of study and recognition at the international level. Pioneering studies on stratigraphy, mineralogy, sedimentology and paleontology have been undertaken in the Dolomites by leading geologists since the 18th century (SoOUV 2009, IUCN evaluation 2009).

Other important biodiversity values

► Faunal diversity

The property includes areas of national and regional importance for faunal biodiversity. The fauna is very diverse due to the great number of different

habitats, altitudinal levels and the region's pivotal biogeographic location. A gradual recolonisation of remote areas by large carnivores is occurring, and has been facilitated by a diminishing human use and disturbance of both valley lands and alpine pastures. This has encouraged the return of animals such as bear (partially reintroduced) and lynx, previously killed to protect livestock (IUCN evaluation 2009).

► **Plant diversity**

The property includes areas of national and regional importance for plant biodiversity. The flora of the Dolomite region includes c. 2,400 plants. Not all the species are represented in the property, however some component protected areas included in the site host a very high plant biodiversity: the national Park of the Dolomiti Bellunesi alone has 1,350 species, a quarter of Italy's flora, and 55 forest types (IUCN evaluation 2009).

Assessment information

Threats

Current Threats

Low Threat

Activities and infrastructures linked to tourism represent a high threat to the site's Outstanding Universal Value in some areas. Many other human activities represent a low threat but if added together they could be of some concern. It is very important to evaluate de cumulative effect of all the human activities on every component of the property.

► **Livestock Farming / Grazing**

Very Low Threat
Inside site

Summer pasture activities occur within the site. While cattle are limited to

the few fertile grazing grounds, sheep are found in many places.

► Roads/ Railroads

Low Threat
Inside site
Outside site

There are few public roads crossing small parts the property, but many other roads and tracks are present. These are used for the limited forestry and hunting (only in Bolzano province) activities and to supply the mountain refuges (IUCN Evaluation, 2008). These roads represent a low threat to the site's biodiversity.

► Commercial hunting

Very Low Threat
Inside site
Outside site

Except in the nature parks and national parks, hunting is permitted in the area (but is well managed) (IUCN Evaluation, 2008, Nomination file 2008).

► Tourism/ visitors/ recreation

High Threat
Inside site
Outside site

The Dolomites are a very important touristic destination within the Alps. Important touristic infrastructure surrounds the components of the site. Tourism facilities and activities are at the limits of tolerance for a natural World Heritage site in some of the component parts of the property (e.g. Marmolada, component 2 and Tre Cime, part of component 5). Tourism infrastructure also has significant impacts within the buffer zone. Further infrastructure development can have a high potential to affect the landscape and the superlative beauty of the site, as well as its biodiversity (IUCN Evaluation, 2008; Nomination file, 2008).

► Logging/ Wood Harvesting

Low Threat

Inside site
Outside site

The intensity of these forestry activities is low and commonly limited to individual trees. However, no legal prohibition of clear cuttings exists. This is a low threat for the landscape value of the site and its biodiversity (IUCN Evaluation, 2008).

Potential Threats

Very Low Threat

Currently, there are only very low potential threats.

► Earthquakes/ Tsunamis

Very Low Threat
Inside site
Outside site

The Dolomites in Friuli and the Sinistra Piave (left Piave bank) are known to be particularly active. This area is part of the western edge of the Friuli seismogenic system and is subject to widespread, frequent earthquakes with a magnitude of < 3. Occasionally, stronger earthquakes have been recorded at the edges of this system (8th October 1986, M = 3,1) (CPTI11). Seismic activities could lead to large scale landslide phenomena, which could potentially affect the landscape and geomorphology linked attributes (Nomination dossier, 2008).

► Temperature changes

Very Low Threat
Inside site

The glaciers and permafrost melting is mentioned in the Nomination files (2008). This could be a potential threat for the values related to the superlative beauty of the site.

Protection and management

Assessing Protection and Management

▶ Sustainable use

Some Concern

The sustainable tourism strategy should be completed by 2015 (Management progress report, 2013).

▶ Education and interpretation programs

Mostly Effective

A training program on management of world natural heritage is being implemented and research programs in collaboration with universities and institutes are ongoing. (Management progress report, 2013)

▶ Tourism and interpretation

Some Concern

The sustainable tourism strategy should be completed by 2015 (Management progress report, 2013)

▶ Monitoring

Some Concern

The monitoring system should be included in the overall management strategy that will be completed in 2016 (Management progress report, 2013)

▶ Research

Mostly Effective

There are some research institutes involved (EURAC; University of Udine inter alia), but more information about the actual research activities would be beneficial (Management progress report, 2013)

▶ Sustainable finance

Mostly Effective

The finances are provided by the regions and provinces on the basis of a plan

approved every three years (the financing for 2011-12 was approved on this basis with the total funding of 400’000 Euro/year) (Management progress report, 2013). Since 2012 the Foundation received an annual contribution from the Board of supporters (74’000 Euros). The Municipality of Cortina d’Ampezzo contributed directly to the financing in 2012 (35’000 Euros). The Ministero dei Beni culturali finances some projects (225’000 Euros in 2011) (Management progress report, 2013)

► Relationships with local people

Data Deficient

In the overall management strategy there is no description of the role of the local communities (Mission report, 2011). They should be integrated into the individual management plans of all component parts, but no information on this is currently available other than that they are involved as Member Assembly in the management of the property. Local authorities and stakeholders are actively involved in the development of the guidelines for the sustainable tourism strategy and other functional networks (Management Progress report 2013).

► Legal framework and enforcement

Mostly Effective

The existing legal framework is considered effective (Mission report, 2011). However, in regards to some threats (especially tourism development), some concerns remain.

► Integration into regional and national planning systems

Mostly Effective

The regional management system is integrated into the overall management strategy (Mission report, 2011). This strategy will be completed in 2016 (Management Progress report 2013).

► Management system

Some Concern

The Foundation Dolomiti-Dolomen-Dolomitis-Dolomites UNESCO was established on the 13th May 2010 as the institutional mechanism for co-

ordinated management of the nine separate component sites of the serial World Heritage Property. The nine component sites are found within five provinces and three separate Regions (Friuli Venezia Giulia, Trentino Alto Adige and Veneto) (Mission report, 2012). The proposed management structure will integrate all important stakeholders and coordinate all different regions/provinces and local governance structures. However, this management system is not yet fully functional (Management Progress report 2013).

► Management effectiveness

Some Concern

The management system is not complete yet (Management progress report, 2013)

► Implementation of Committee decisions and recommendations

Mostly Effective

All decisions are being addressed. The deadline for the completion of the overall management strategy is 2016 (Management progress report, 2013).

► Boundaries

Mostly Effective

The property includes all areas that are essential for maintaining its OUV. What concerns biodiversity values of the site, there is a lack of data on the ecological connectivity between the component protected areas included in the site.

► Staff training and development

Data Deficient

In 2011 3 full time staff members worked for the management body (Foundation). There is no further information on training and development (Mission report, 2011).

Overall assessment of protection and management

Some Concern

The necessary measures to establish an overall management system for the entire property are ongoing but the management is not fully functional yet. The Overall management strategy should be complete by 2016. It will be important to effectively implement and resource the overall management strategy, sustainable tourism strategy, and monitoring system.

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

Management outside the site is not directly linked to the conservation of the site's OUV.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Spectacular mountain landscape**
Low Concern
Trend:Stable

The state of the site's mountain landscape is good, however existing threats from tourism overuse and development are of concern in some areas (IUCN Evaluation 2008, Mission report 2011).

▶ **Extremely varied limestone formations**
Good
Trend:Stable

Geological values of the site are less impacted by tourism activities and infrastructure (IUCN Evaluation 2008).

▶ **Geological and fossil values of international significance**
Good
Trend:Stable

Geological values of the site are less impacted by tourism activities and infrastructure (IUCN Evaluation 2008).

► Long history of geological studies

Good
Trend:Stable

Geological values of the site are less impacted by tourism activities and infrastructure (IUCN Evaluation 2008).

Other important biodiversity values

► Faunal diversity

The property includes areas of national and regional importance for faunal biodiversity. The fauna is very diverse due to the great number of different habitats, altitudinal levels and the region’s pivotal biogeographic location. A gradual recolonisation of remote areas by large carnivores is occurring, and has been facilitated by a diminishing human use and disturbance of both valley lands and alpine pastures. This has encouraged the return of animals such as bear (partially reintroduced) and lynx, previously killed to protect livestock (IUCN evaluation 2009).

► Plant diversity

The property includes areas of national and regional importance for plant biodiversity. The flora of the Dolomite region includes c. 2,400 plants. Not all the species are represented in the property, however some component protected areas included in the site host a very high plant biodiversity: the national Park of the Dolomiti Bellunesi alone has 1,350 species, a quarter of Italy’s flora, and 55 forest types (IUCN evaluation 2009).

Summary of the Values

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

Low Concern

Trend: Stable

The conservation of the site's landscape and its outstanding natural beauty are of some concern due to tourism activities and infrastructure within the property and in its surroundings. It is too early to evaluate a trend of the values. The geological values of the site are currently well preserved and will most likely be maintained in the foreseeable future.

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

Low Concern

Trend: Data Deficient

Different activities linked to tourism as well as other activities (sanitary cuttings, hunting) affect the site's fauna and flora (Mission report, 2011). It is too early to evaluate the trend for the values.

Additional information

Key conservation issues

▶ **The overall management strategy is not yet complete**

Local

This strategy will ensure a coordinated and efficient management and governance of all the components of the property.

▶ **Absence of a monitoring system**

Local

A monitoring system should be part of the overall management strategy.

▶ **Absence of a tourism development strategy**

Local

A tourism development strategy would provide guidelines to minimize the impacts of tourism on the OUV of the property and its surroundings.

Projects

Compilation of active conservation projects

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

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Joint educational program	An educational program on World Heritage and the OUV of the property needs to be developed for schools of all the regions (Provinces).	

REFERENCES

№	References
1	CPTI11 - A. Rovida, R. Camassi, P. Gasperini and M. Stucchi (eds.), 2011. CPTI11, the 2011 version of the Parametric Catalogue of Italian Earthquakes. Milano, Bologna, http://emidius.mi.ingv.it/CPTI, DOI: 10.6092/INGV.IT-CPTI11
2	Management progress report, Fondazione Dolomiti, 2013
3	Mission Report. Reactive monitoring mission, The Dolomites (Italy), IUCN, 2011
4	Nomination of the Dolomites for inscription on the WHL, Province di Belluno, Bolzano, Pordenone, Trento, Udine, 2008.
5	WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION, THE DOLOMITES (ITALY) – ID No. 1237 Rev, IUCN 2008