IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 14 November 2014

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

Mount Etna

SITE INFORMATION

Country:
Italy
Inscribed in: 2013
Criteria:
(viii)

Site description:

Mount Etna is an iconic site encompassing 19,237 uninhabited hectares on the highest part of Mount Etna, on the eastern coast of Sicily. Mount Etna is the highest Mediterranean island mountain and the most active stratovolcano in the world. The eruptive history of the volcano can be traced back 500,000 years and at least 2,700 years of this activity has been documented. The almost continuous eruptive activity of Mount Etna continues to influence volcanology, geophysics and other Earth science disciplines. The volcano also supports important terrestrial ecosystems including endemic flora and fauna and its activity makes it a natural laboratory for the study of ecological and biological processes. The diverse and accessible range of volcanic features such as summit craters, cinder cones, lava flows and the Valle de Bove depression have made the site a prime destination for research and education. © UNESCO

SUMMARY

2014 Conservation Outlook

Good

The geological values of the site are well-preserved and its Outstanding Universal Value is not threatened at present. Protection and management of the site are mostly effective; however, some concerns exist regarding the current levels of staffing and funding. Additional financial and technical support could help improve visitor facilities and environmental education programmes. Etna remains one the best-studied volcanoes in the world, however, the capacity of the site management and other institutions to sustain ongoing monitoring and research needs to be strengthened.

Current state and trend of VALUES

Good
Trend: Stable

The geological values of the site are well-preserved and its Outstanding Universal Value is not threatened at present. Etna remains of one the best-studied volcanoes in the world, however, the capacity of the site management and other institutions to sustain ongoing monitoring and research needs to be strengthened.

Overall THREATS

Very Low Threat

Geological values of the site which are the basis for its inscription on the World Heritage List are currently not facing any threats and it is unlikely that any potential threats will emerge.

Overall PROTECTION and MANAGEMENT

Mostly Effective

Protection and management of the site are mostly effective with some concerns remaining regarding the levels of funding and staffing. Additional financial and technical support could help improve visitor facilities and environmental education programmes. Existing monitoring and research activities also need to be sustained in the long-term.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **One of the world’s most active and iconic volcanoes**
Criterion:(viii)

Mount Etna is one of the world’s most active and iconic volcanoes, and an outstanding example of ongoing geological processes and volcanic landforms (IUCN evaluation, 2013, SoOUV, 2013). The stratovolcano is characterized by almost continuous eruptive activity from its summit craters and fairly frequent lava flow eruptions from craters and fissures on its flanks (SoOUV, 2013).

► **One of the best-studied and monitored volcanoes**
Criterion:(viii)

Mount Etna is one of the best-studied and monitored volcanoes in the world, and continues to influence volcanology, geophysics and other earth science disciplines. Mount Etna's activity has been documented by humans for at least 2'700 years, making it one of the world's longest documented records of historical volcanism (SoOUV, 2013).

Other important biodiversity values

► **Endemic flora**

Mount Etna's flora is specialized to the very particular volcanic habitat. Ten endemic plant species are restricted to the zones above 2100 m. Several

species are protected by Italian laws and by the EU Habitats Directive (Nomination Dossier, 2012).

► Endemic fauna

Etna's endemic fauna includes mainly arthropods with numerous endemic insects. Several species are protected by Italian laws and by the EU Habitats Directive (Nomination Dossier, 2012).

► Unique ecosystems

As an isolated island volcano in the Mediterranean Basin biodiversity hotspot, Mount Etna supports important terrestrial ecosystems and communities with a high rate of endemism and adapted to the edaphic and climatic conditions (IUCN Evaluation, 2013). Several habitats are protected by Italian laws and by the EU Habitats Directive.

Assessment information

Threats

Current Threats

Very Low Threat

Geological values of the site which are the basis for its inscription on the World Heritage List are not facing any threats. There are a number of low threats affecting biodiversity values of the site.

► Livestock Farming / Grazing

Low Threat
Outside site

Low-intensity grazing is permitted and occurs in parts of the property in the summer season (IUCN Evaluation, 2013).

► Tourism/ visitors/ recreation

Low Threat
Inside site
Outside site

Mount Etna cableway and organized 4x4 drives increase access to the site which increases littering, erosion, noise and disturbance of wildlife(Pers. obs., 2014). For the past two years, public access to the top of Mount Etna has been officially prohibited for safety reasons, but this regulation has been difficult to enforce (IUCN Evaluation, 2013).

► Solid Waste

Very Low Threat
Outside site

Waste dumps outside the site can indirectly affect the fauna and the flora.

Potential Threats

► Fire/ Fire Suppression

Low Threat
Inside site
Outside site

Fires pose a threat to the site’s biodiversity values, especially the vegetation. Fires could be triggered naturally (volcanism, lightning) but also by humans (IUCN, 2013).

► Tourism/ Recreation Areas

Very Low Threat
Inside site
Outside site

Development of large-scale tourism infrastructure could potentially be a threat, especially inside the site, for example in the case of inappropriate developments. However, currently no proposals for such projects exist.

Protection and management

Assessing Protection and Management

► Legal framework and enforcement

Mostly Effective

The site includes part of the Regional Nature Park “Parco dell’Etna” established in 1987 by Decree of the President of the Sicilian Regional Autonomy which provides for adequate protection for the key values of the site. 77% of the site also overlap with Natura 2000 sites (SoOUV, 2013).

► Research

Mostly Effective

Several research activities are ongoing and involve local and international organizations (Nomination document, 2012).

► Monitoring

Mostly Effective

There is a large network of monitoring stations and remote sensors to monitor and analyze the volcano’s activity level. Data are also being collected on beech and pine forest areas and on tourism pressure (Nomination document, 2012). Ecological monitoring (e.g. fauna / wild cat, wider flora) could be expanded and/or needs additional resources.

► Tourism and interpretation

Some Concern

Tourism facilities require improvements and environmental education programmes need to be enhanced (IUCN Evaluation, 2013)

► Education and interpretation programs

Some Concern

The IUCN Evaluation Report (2013) noted that environmental education could

be enhanced with additional financial and technical support.

▶ Sustainable use

Data Deficient

Data deficient

▶ Staff training and development

Some Concern

The management authority Ente Parco dell’Etna has 48 staff members; however, there is a certain lack of onsite management presence and limited expert staff capacity in the fields of volcanology and ecology (IUCN Evaluation, 2013).

▶ Sustainable finance

Some Concern

The management authority Ente Parco dell’Etna receives its core funding from the Sicilian Regional Authority. Other sources of funding include the Italian State and the European Union. IUCN Evaluation report noted that “additional financial and technical support is needed for example to improve the environmental education and ecotourism facilities in the property, and tourism facilities in the buffer zone and wider park area” (IUCN Evaluation, 2013).

▶ Boundaries

Highly Effective

The boundaries of the site are clearly defined and include the site’s key geological values which are the basis for its inscription (IUCN Evaluation, 2013).

▶ Implementation of Committee decisions and recommendations

Data Deficient

As the site was inscribed on the World Heritage list in 2013, the World Heritage Committee made a number of recommendations, including review and updating of the management plan, enhancement of visitor facilities and promotion of existing education, monitoring and research activities (Decision

37COM 8B.15). It is too early to judge whether any progress has been achieved in the implementation of these recommendations.

► Management effectiveness

Some Concern

The IUCN Evaluation report noted that the current levels of staffing and funding were adequate, however, they “may be short of the levels required as World Heritage Site” (IUCN Evaluation, 2013).

► Management system

Mostly Effective

The management of the site is coordinated by the public agency Ente Parco dell’Etna – the management authority of the Etna Regional Nature Park (IUCN Evaluation, 2013). The park’s Executive Committee, a technical body, is in charge of decisions concerning the park’s budget, administration and management. The park director leads the day-to-day administration and management of Etna Park (IUCN Evaluation, 2013). The main instrument for the management of the protected area is the park territorial plan and related regulations (Nomination document, 2012).

► Integration into regional and national planning systems

Mostly Effective

Coordination between different national and regional institutions could be improved. At the time of inscription the World Heritage Committee requested the State Party to “coordinate regional and national authorities to maintain and strengthen their support to the property, to further increase the management capacity of the property” (Decision 37COM 8B.15).

► Relationships with local people

Highly Effective

The World Heritage nomination was developed through a participatory process and was widely supported by a wide range of stakeholders (IUCN Evaluation, 2013).

Overall assessment of protection and management

Mostly Effective

Protection and management of the site are mostly effective with some concerns remaining regarding the levels of funding and staffing. Additional financial and technical support could help improve visitor facilities and environmental education programmes. Existing monitoring and research activities also need to be sustained in the long-term.

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

Data Deficient

Data deficient

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ One of the world’s most active and iconic volcanoes

Good
Trend:Stable

The geological values of the site are well-preserved and its Outstanding Universal Value is not threatened at present (IUCN Evaluation, 2013).

▶ One of the best-studied and monitored volcanoes

Low Concern
Trend:Stable

Etna remains one of the best-studied volcanoes in the world, however, the capacity of the site management and other institutions to sustain ongoing monitoring and research needs to be strengthened.

Other important biodiversity values

► Endemic flora

Mount Etna's flora is specialized to the very particular volcanic habitat. Ten endemic plant species are restricted to the zones above 2100 m. Several species are protected by Italian laws and by the EU Habitats Directive (Nomination Dossier, 2012).

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► Unique ecosystems

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Summary of the Values

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

Good

Trend: Stable

The geological values of the site are well-preserved and its Outstanding Universal Value is not threatened at present. Etna remains of one the best-studied volcanoes in the world, however, the capacity of the site management and other institutions to sustain ongoing monitoring and research needs to be strengthened.

► Assessment of the current state and trend of other important

biodiversity values

Low Concern

Trend: Stable

Biodiversity values of the site have been slightly impacted, mainly in the buffer zone, by a number of threats, including grazing, impacts of tourism and waste.

Additional information

Key conservation issues

▶ Disbandment of the Technical and Scientific Committee

Local

Due to the lack of financial resources, the Technical and Scientific Committee of the Mt Etna Park was disbanded in 2013.

▶ Waste

Local

Numerous unauthorized waste dumps exist (mainly around the site, in the buffer zone).

▶ Lack of scientific staff

Local

The number of scientific staff members is insufficient, considering the size of the site, and lacking some core competencies (e.g. in the field of botany).

Benefits

Understanding Benefits

▶ Livestock grazing areas

Low-intensity grazing is permitted and occurs in parts of the property in the summer season (IUCN Evaluation, 2013).

▶ **Importance for research**

Mount Etna is one of the best-studied and monitored volcanoes in the world.

▶ **Outdoor recreation and tourism**

The site is an important tourism destination.

▶ **Sacred natural sites or landscapes**

Mt Etna is an iconic volcano for Sicily, Italy and is well known all over the world. It has also served as a source of inspiration for literature and art.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	NGOs Giacche Verdi Bronte (Italy) and Manfred-Hermsen-Stiftung (Germany)		“The joint activity of the environmental NGOs Giacche Verdi Bronte (Italy) and Manfred-Hermsen-Stiftung (Germany) aims for saving the threatened „1000 years old oak trees” at Mount Egitto" which is part of Mount Etna.
2	Ente Parco Etna / Accademia Italiana di Scienze Forestali		“Monitoraggio vegetazionale, forestale e dell’avifauna” (Vegetation, Forestry and Avifauna Monitoring). Core zone - Mount Egitto (which is part of Mount Etna)
3	Ente Parco / Servizio Fitosanitario forestale dell’Azienda Foreste Demaniali-Regione Siciliana		“Monitoraggio dell’Entomofauna” (Enthomofauna Monitoring)

№	Organization/ individuals	Project duration	Brief description of Active Projects
4	Istituto Nazionale di Geofisica e Vulcanologia INGV, Ente Parco Etna		Placement of dynamic digital panels along geological sites inside Etna natural Park.Reorganization, enhancement and promotion of the Museum of Etna (Museo Vulcanologico dell'Etna), located in Nicolosi (CT), through a new interactive concept of museum, in order to increase the spread of scientific research and its impact on society
5	Ente Parco Etna		Improvement of Mount Manfrè Woods -buffer zone

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	Enhancement of environmental education programmes	
2	N.A.	Improvement of visitor facilities	

REFERENCES

№	References
1	Confidential Consultation, 2014.
2	IUCN Evaluation, 2013.
3	List of the habitats occurring within the regional park "Mt Etna" (extr. Preparatory documents for the Management Plan of Mount Etna / 2009) in Italian
4	List of the main threats affecting the regional park "Mt Etna" (extr. Preparatory documents for the Management Plan of Mount Etna / 2009) in Italian
5	Parco dell’Etna, 2012. Nomination Document.
6	Statement of Outstanding Universal Value, 2013.