

# Chaîne des Puys - Limagne fault tectonic arena

## 2020 Conservation Outlook Assessment

### SITE INFORMATION

**Country:** France  
**Inscribed in:** 2018  
**Criteria:** (viii)



Situated in the centre of France, the property comprises the long Limagne fault, the alignments of the Chaîne des Puys volcanoes and the inverted relief of the Montagne de la Serre. It is an emblematic segment of the West European Rift, created in the aftermath of the formation of the Alps, 35 million years ago. The geological features of the property demonstrate how the continental crust cracks, then collapses, allowing deep magma to rise and cause uplifting at the surface. The property is an exceptional illustration of continental break-up - or rifting - which is one of the five major stages of plate tectonics. © UNESCO

### SUMMARY

#### 2020 Conservation Outlook

Finalised on 10 Dec 2020

#### GOOD WITH SOME CONCERNS

Recently inscribed on the World Heritage List in 2018, the site's geological values remain in good condition. Threats to the site include development pressures (quarries, urbanization, erosion/tourism and afforestation) and a concern over the level of protection of the Montagne de Serre area, as well as a potential threat of increased visitation impacts, however generally the threats remain low. The overall protection and management of the site is mostly effective. A national legislative framework, management plan, and regulatory documents for spatial planning and local operations are in place. A new 2021-2027 management plan is in the process of being validated and the recommendations and requests made by the World Heritage Committee at the time of inscription are being addressed, including the development of a new management plan, initiation of the closure of one of the two adjacent quarries, and a review of the limited protection status of the Montagne de Serre area to strengthen its protection; however, the full implementation of these measures will need to be further assessed.

## FULL ASSESSMENT

### Assessment information

#### Threats

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##### Current Threats

Low Threat

Overall, there are no significant threats to the site. At the time of inscription in 2018, the World Heritage Committee noted development and legislative/management issues, and the site remains subject to development pressures such as quarries, urbanization, erosion/tourism and afforestation, however these threats are either low or very low.

► **Other Ecosystem Modifications**

Very Low Threat

*(The Montagne de la Serre area has a lower level of regulatory protection than other key parts of the WHS)*

Inside site, scattered(5-15%)

At the time of inscription, IUCN noted that one of the key areas of the site, the inverted relief of the Montagne de la Serre, falls outside the "site classé/inscrit" designation (IUCN, 2018). It is considered important to bring this area into line with the "site classé" level of protection to provide an equivalent level of protection. Without this protection, there is an increased threat to the Montagne de la Serre's geological values. The government is in the process of assessing the potential classification of the Montagne de la Serre as a "site classé" (law 1930), including through an on-site inspection mission in the summer of 2020 and examination of the project by the Higher Commission for Sites, Perspectives and Landscapes, who must be consulted regarding site classifications (IUCN Consultation, 2020a).

► **Residential Areas, Commercial & Industrial Areas, Recreation & Tourism Areas**

Low Threat

*(Development (quarries, urbanization, erosion/tourism and afforestation potentially masking geological features))*

Inside site, widespread(15-50%)

The 2018 IUCN Evaluation Report noted some concern over threats from development in relation to criterion (viii) for the long-term preservation of the nominated property, in relation to quarries, urbanization, erosion/tourism and afforestation potentially masking geological features (IUCN, 2018). A similar list of threats has been reiterated via the State Party's response to the supplementary information request.

► **Mining & Quarrying**

Very Low Threat

*(Two quarries adjacent to the site)*

Outside site

At the time of inscription in 2018, IUCN and the World Heritage Committee emphasized that the government should fulfill the commitment to close the two quarries adjacent to the World Heritage site (IUCN, 2018; World Heritage Committee, 2018). For the Puy de la Toupe quarry, progress is reported including non-renewal of the operating licence in December 2018; a landscape treatment study in March 2020 to return the profile of a volcano, preserve the characteristic geological elements (vein, layers, etc.), make it a zone of tranquility for wildlife and plant recovery analysis site (scientific committee monitoring); as well as the signature of the decree for the final restoration of the quarry site in September 2020 (IUCN Consultation, 2020b). For the Ténusset quarry, authorization remains in place until the end of 2030, at which time the government commits to not renew the authorization. An analysis is to be carried out on the initial landscape treatment prescriptions in view of the new World Heritage status (IUCN Consultation, 2020b).

##### Potential Threats

Low Threat

A future increase in visitation and associated impacts of erosion could potentially threaten the values if not effectively managed.

► **Unknown Threats**

**Very Low Threat**

*(Increased visitor numbers can enhance erosion and damage of geological values)*

Inside site, scattered(5-15%)

The 2018 IUCN Evaluation Report noted high visitor numbers, with the potential for erosion, as a potential threat that requires careful monitoring, considered action and ongoing management. Similar challenges exist with the management of forest cover on geological features to balance exposure with erosion protection. On visitor management, the additional information informed of new training opportunities for tour guides regarding private properties, an online-reservation system for school visits, as well as enhanced presence of park rangers. In 2020, further updates include the adaptation of hiking trails to better channel visitors (programs initiated on the puys de Pariou, la Vache, Lassolas and included in the PG 2021/2027), increased training of guides and mountain guides with recognition for certified guides, and the development and implementation of afforestation regulations to delimit areas prohibited for afforestation (IUCN Consultation, 2020b).

## Protection and management

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### Assessing Protection and Management



**Mostly Effective**

The Department of Puy-de-Dôme is in charge of the management of the World Heritage site in close collaboration with the State services and the Parc des Volcans d'Auvergne. The Department and the Park have pooled their staff to ensure day-to-day management of the site (IUCN Consultation, 2020b). The 2015-2020 management plan for the site was developed and submitted as part of the World Heritage nomination dossier (State Party of France, 2017). It was developed in addition to other local tools for the protection of natural heritage and spatial planning (ENS, Natura 2000, etc.). The original management plan was developed following consultations between 2010 and 2012 involving local and national institutions, socio-professional actors, inhabitants and scientists. The stakeholders drew up the diagnosis, defined the management priorities and proposed actions to preserve the property on the basis of prior reflections by a scientific and technical group. Steering is ensured by an Executive Committee led by the Puy-de-Dôme General Council. This Committee is supported by a Local Commission, a Technical Committee, a World Heritage Mission, a Monitoring Unit and a Permanent Scientific Council. The Management Plan is built around three axes: (1) preservation of the integrity of the geological heritage, (2) management of tourist numbers and maintenance of local economic activities and (3) sharing of knowledge and detailed in precise and prioritised operational sheets. Overall, the management system makes good use of stakeholder engagement, adequate staffing levels, and regulatory authority. Concerns noted by the World Heritage Committee at the time of inscription recommended increased legislative authority for protection in some areas and noted the limited times for regulatory protections ending in 2020 (IUCN, 2018; World Heritage Committee, 2018). A new 2021-2027 management plan has been developed and is in the process of being validated. It is reported to be part of the continuity of management actions to guarantee the geological, natural and landscape integrity of the site while supervising and structuring human activities including tourist attendance (IUCN Consultation, 2020a,b). The three initial axes are maintained and new subjects include the preservation of biodiversity, the creation of a landscape plan, and a study of the areas of landscape influence. The plan includes cross-cutting issues of preserving the integrity of geological buildings and associated landscapes, respect for biodiversity and climate change (IUCN Consultation, 2020b). The plan remains to be finalised and made publicly available.



**Data Deficient**

The new 2021-27 management plan is being finalised (IUCN Consultation, 2020b) and it remains to be confirmed to what degree management effectiveness has been monitored and evaluated since inscription, and how it is incorporated into the new plan.



**Mostly Effective**

The boundaries of the site meet the requirements of the World Heritage Convention (IUCN, 2018), following the exclusion of the two quarries from the original nomination in response to concerns about the unusual configuration of the boundaries and inclusion of heavily modified landscapes. Overlapping private, state, and common ownership require a high degree of stakeholder and park staff input and education to properly manage boundaries.

► **Some Concern**

At the time of inscription, the World Heritage Committee noted the need to strengthen the level of protection applying to the Montagne de Serre area of the site (World Heritage Committee, 2018). Overall, the site is integrated into the territorial planning processes at local scale, however, links to the planning processes at regional or national scale are not mentioned in the current management plan.

► **Highly Effective**

Local communities and stakeholders were involved in the preparation of the current 2015-2020 management plan for the site and engagement of local stakeholders in the management of the site is one of the key priorities identified in the management plan (State Party of France, 2017).

► **Mostly Effective**

The protection of the site is ensured by a national legislative framework, regulatory documents for land use planning and local operations implemented by various actors from the local to national level. In particular, the Chaîne des Puys has been protected by decree since 2000 as a classified site. The site is part of the Auvergne Volcanoes Regional Natural Park and includes Natura 2000 sites and Sensitive Natural Areas. A biotope decree on the Narse d'Espinasse, a regional nature reserve (cheires and caves of Volvic), also exists. Following concerns raised at the time of inscription that one of the key areas of the site, the inverted relief of the Montagne de la Serre, falls outside the "site classé/inscrit" designation (IUCN, 2018), the government is in the process of assessing the potential classification of this area as a "site classé" (IUCN Consultation, 2020a).

► **Highly Effective**

There is a good level of park staffing and financial commitment for the site (World Heritage Committee, 2018; IUCN, 2018).

► **Some Concern**

Since inscription of the site in 2018, the government has expressed its commitment to implementing the recommendations of the Committee. Reported progress of actions taken to date include initiation of the process to close one of the two quarries, development of a new management plan, as well as a reflection on the conditions aimed at strengthening the tools and the protection regime for the Montagne de la Serre sector (IUCN Consultation, 2020b).

► **Mostly Effective**

Some concerns were noted at the time of inscription related to agriculture, quarrying, and increased visitation (World Heritage Committee, 2018), but protections should be in place for these, once the State Party implements the recommendations of the World Heritage Committee. Since 2008, a French "Opération Grand Site" has been aimed at enhancing and protecting the Puy de Dôme, notably by improving tourist reception conditions with a view to sustainable development. A Forest Charter for the area is also being implemented in the site in order to guarantee the sustainable use of the forest resource by local stakeholders. The maintenance of summer pastures and sustainable pastoral activities is one of the objectives identified in the operational sheets of the 2020-2025 Management Plan (State Party of France, 2017).

► **Highly Effective**

At the time of inscription, it was considered that levels of financial commitment are sufficient (IUCN, 2018; World Heritage Committee, 2018). The site's 2015-2020 management plan lists numerous public financial sources that can be mobilized from the local (department) to international (Europe) level

without specifying the amounts actually available. It is expected that the next 2021-2027 management plan will benefit from the same public financial sources as well as patronage, in particular through the Fondation Chaîne des Puys-faille de Limagne (IUCN Consultation, 2020b), however details are not available.

► **Mostly Effective**

At the time of inscription, it was noted that staffing levels were sufficient (IUCN, 2018; World Heritage Committee, 2018). Increased training is recommended owing to the complex nature of managing an area with high stakeholder engagement and need for stakeholder education on land use restrictions.

► **Mostly Effective**

The 2015-2020 management plan of the site lists numerous actions aimed at developing knowledge and the valorisation of the site among the public and local actors. The development of educational resources, educational services and, more broadly, geotourism around the Outstanding Universal Value of the site are also being sought. Furthermore, other activities included online training of local actors, publication of an educational booklet on the Chaîne des Puys, partnership with the National Education to develop educational materials and activities (IUCN Consultation, 2020b).

► **Mostly Effective**

The World Heritage site is located in a populated and touristic region and close to a large conurbation (Clermont-Ferrand), which generates a significant number of tourists. Numerous museums and infrastructures for the in-situ promotion of the geoheritage exist. Various Sensitive Natural Spaces also enable ecotourism to be developed locally. The 2015-2020 management plan for the site lists numerous actions aimed at developing and managing tourism (development of reception and visitor infrastructures, management of sports events, development of geotourism on a regional scale, etc.) (State Party of France, 2017).

► **Mostly Effective**

The 2015-2020 management plan includes the aim to create a landscape observatory. Elaboration and providing public access to the photographs of the landscape observatory of the Chaîne des Puys - Limagne fault is underway with the principle to renew one third of the photographs every year (Departmental Council of Puy-de-Dôme, 2020; IUCN Consultation, 2020b). Also in progress is the elaboration of an observatory of the socio-economic impacts of heritage policies including the observation of the frequentation (IUCN Consultation, 2020b).

► **Highly Effective**

The area that now constitutes the World Heritage site has been, and continues to be, an area of active research into the process of continental breakup, and individual components of the system.

## Overall assessment of protection and management

► **Assessment of the effectiveness of protection and management in addressing threats outside the site** **Mostly Effective**

The overall protection and management of the World Heritage site to address threats from outside the site appears to be mostly effective; the closure of both quarries directly adjacent to the site is underway and remains to be fully achieved.

## State and trend of values

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### Summary of the Values

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

**Trend: Data Deficient**

## REFERENCES

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