



# IUCN World Heritage Evaluations 2016

ADDENDUM: IUCN Evaluations of nominations of natural and mixed properties to the World Heritage List

WHC/16/40.COM/INF.8B2.ADD



IUCN REPORT FOR THE WORLD HERITAGE COMMITTEE, 40TH SESSION, ISTANBUL, TURKEY, 10-20 JULY 2016



## ADDENDUM

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OUTSTANDING UNIVERSAL VALUE															
State Party	Name of the property (ID number)	Note	Meets one or more natural criteria				Meets conditions of integrity				Meets protection and management requirements			Further mission required	IUCN Recommendation
			Criterion (vii)	Criterion (viii)	Criterion (ix)	Criterion (x)	Integrity	Boundaries	Threats addressed	Justification of serial approach	Protection status	Management	Bufferzone/ Protection in surrounding area		
			77	77	77	77	78,87-95	99-102	78,98	137	78,1324	78,108-118, 1324, 135	103-107		
Paragraphs of the Operational Guidelines for the Implementation of the World Heritage Convention	Kaeng Krachan Forest Complex (1461 Rev)	Referred nomination	–	–	–	part	part	yes	yes	–	yes	part	yes	no	R
Thailand	Sanganeb Marine NP and Dungonab Bay-Mukawar Island Marine NP (262 Ter)	Referred nomination	part	–	part	part	part	no	part	no	yes	part	no	no	R
Sudan	Tectono-volcanic Ensemble of the Chaine des Puys and Limagne Fault (1434 Rev)	Referred nomination	no	no	–	–	no	no	no	–	no	no	no	no	N

**KEYS**

yes met  
 part partially met  
 no not met  
 – not applicable

I inscribe / approve  
 N non inscribe / approve  
 R refer  
 D defer

## **A. NATURAL PROPERTIES**

### **A2. REFERRED NOMINATIONS OF NATURAL PROPERTIES**



**ASIA / PACIFIC**

## **KAENG KRACHAN FOREST COMPLEX**

**THAILAND**



View of elephants and gaur in the nominated property- © IUCN Bruce Jefferies



# WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

## KAENG KRACHAN FOREST COMPLEX (THAILAND) – ID No. 1461 Rev

**IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE:** To refer the nomination.

### Key paragraphs of Operational Guidelines:

Paragraph 77: Nominated property has potential to meet World Heritage criteria.

Paragraph 78: Nominated property does not meet integrity or protection and management requirements.

**Background note:** The Kaeng Krachan Forest Complex was nominated in 2014 and considered by the World Heritage Committee at its 39<sup>th</sup> Session in Bonn, Germany, 2015. IUCN recalls that the Committee's decision at that time (Decision 39 COM 8B.5) took note of the nominated property's strong potential to meet criterion (x) and referred the nomination back to the State Party of Thailand to allow it to address in full the concerns raised by the United Nations Office of the High Commissioner for Human Rights (UNOHCHR) concerning Karen communities within the Kaeng Krachan National Park. The Committee also requested updated data on the conservation status and population viability of key threatened species reported from the property and encouraged Thailand to consider nominating the property also under criterion (ix). The Committee welcomed the 'roadmap' adopted by the Thai Cabinet on 23 June 2015 which outlined a one year plan to address a range of issues concerning the nominated property. The State Party submitted a response to Decision 39 COM 8B.5 on 26 January 2016 which is discussed in detail below. The evaluation below draws upon the previous IUCN assessment taking into account re-submitted material. The Committee's attention is drawn to the previous evaluation (WHC-15/39.COM/INF.8B2) in order to avoid repeating information.

## 1. DOCUMENTATION

**a) Date nomination received by IUCN:** Original nomination received on 18 March 2014. The State Party's response to Decision 39 COM 8B.5 was received on 26 January 2016.

**b) Additional information officially requested from and provided by the State Party:** Supplementary information on the original nomination was requested from the State Party in December 2014 with information received on 24 February 2015 and considered in IUCN's 2015 evaluation report. No additional information has been requested over and above this.

**c) Additional literature consulted:** Various sources listed in the original nomination, and in the earlier IUCN evaluation report. Ministry of Natural Resources and Environment (MONRE) Thailand, June 2015. *Road Map to support the nomination of Kaeng Krachan Forest Complex for inscription on the World Heritage List*. UNOHCHR, November 2015. *Proposed recommendations on the draft Road Map of the Government of Thailand to support the nomination of the Kaeng Krachan Forest Complex for the inscription on the World Heritage List*. Committee of the Karen Network for Culture and Environment of Tenasserim. "Koh Sadeung Declaration of 12 February 2016" provided via email of 19 February 2016 from IUCN Thailand. Pong Luk-Bangkloey Community "Petition letter concerning the nomination of KKFC as World Heritage". letter dated 14 March, 2016 forwarded via email of 22 March 2016 from IUCN Thailand. Brown, J., Hay-Edie, T. 2014 *Engaging Local Communities in Stewardship of World Heritage - a methodology based on the COMPACT experience*. UNESCO World Heritage Papers No 40. UNESCO Paris, France.

**d) Consultations:** Further consultation has taken place with the IUCN representative from the 2014 field mission; officers of the UNOHCHR, Regional Office for South-east Asia; IUCN Asia Regional Office; and a number of additional reviewers over and above those consulted in the 2015 evaluation of this property.

**e) Field visit:** Original field mission undertaken by Bruce Jefferies, 01-09 September 2014

**f) Date of IUCN approval of this report:** May 2016

## 2. SUMMARY OF NATURAL VALUES

IUCN recalls its 2015 evaluation of the nominated property Kaeng Krachan Forest Complex (KKFC). To reiterate the KKFC is a significant part of the Indo-Malayan eco-region, a complex of four contiguous legally gazetted protected areas located along an approximately 250 km section of the 1,700 km Tenasserim Range, which also delineates the international border between Thailand and Myanmar. The nominated property includes three National Parks (NP) and one Wildlife Sanctuary (WS): Kaeng Krachan NP; Kui Buri NP; Chaloem Phrakiat Thai Prachan NP and Mae Nam Phachi WS. The area, boundaries and component protected areas remain unchanged from the originally nominated property. Table 1 from the earlier evaluation is reproduced below for convenient reference.

Protected area	Nominated area (ha)	Buffer Zone (ha)
Kaeng Krachan National Park *	291,470	242,778
Kui Buri National Park *	96,900	
Kui Buri Forest Reserve and Army Reserve Zone (Corridor area now included within Kui Buri NP)	12,000	
Chaloem Phrakiat Thai Prachan National Park *	32,924	
Mae Nam Phachi Wildlife Sanctuary **	48,931	
<b>Total</b>	<b>482,225</b>	<b>242,778</b>

\* protected under the National Park Act, 1961

\*\* protected under the Wildlife Protection and Preservation Act, 1992

**Table 1.** Protected areas comprising the nominated property KKFC

Information supplied by the State Party in response to the referral decision has updated the population status of several key species. During the period 2012-2015, patrolling, camera trapping and field surveys conducted by the Department of National Parks, Wildlife and Plant Conservation (DNP) and NGO partners have provided additional data on population levels and distributions within the nominated property. Updated lists of wildlife have been provided for each of the protected areas making up the forest complex. 47 IUCN Red Listed species have been confirmed, 15 of which are globally threatened (CR, EN and VU). Recent sightings have also confirmed the continued existence of the flagship species Siamese Crocodile (*Crocodylus siamensis* - CR) within the property, although the future viability of this population remains under significant threat. Whilst the additional information is far from comprehensive regarding all recorded threatened species within the KKFC (UNEP-WCMC note 15 mammal, 8 bird and 7 reptile species have been recorded as occurring in the KKFC), it nevertheless demonstrates increased confidence that their habitats remain viable. For example, Sunda Pangolin (*Manis javanica* - CR), Asian Elephant (*Elephas maximus* - EN), Banteng (*Bos javanicus* - EN), Dhole (*Cuon alpinus* - EN), and Asian Tapir (*Tapirus indicus* - EN) have been confirmed through recent surveys as have 9 species of primates. 7 out of the 8 reported cat species in KKFC including Tiger (*Panthera tigris* - EN) have also been confirmed. The additional information also reports on a survey of KKFC's flora undertaken between 2008 and 2011 which provides evidence of rich plant life in the nominated property including a number of endemics and species new to science. IUCN considers that given the relatively short survey timeframes, the inaccessibility of much of the terrain and the fact that this is a very sizable piece of intact forest stretching across the Thailand border and into Myanmar, the additional information provides greater confidence that key populations remain intact within the nominated property.

### 3. COMPARISONS WITH OTHER AREAS

The focus of the Committee's 2015 decision was on issues other than the comparative value of the KKFC. IUCN concluded in 2015 that the KKFC compared favourably with other sites in similar biogeographical contexts and exhibited a particularly diverse biota characteristic of the overlap of a diverse range of zoogeographic and floral regions. The nominated property protects critical habitats for a diversity of species and hosts a full range of mammals, birds and reptiles found in the region.

The additional species data provided by the State Party, and referenced above, serves to reinforce the conclusions on the comparative importance of the nominated property, as it clarifies that key species continue to occupy the forest complex in viable numbers. IUCN recalls its suggestion that the ecosystem values of the KKFC indicate potential for the property to also meet criterion (ix), a suggestion that was carried forward into the Committee's decision. In this regard, the State Party has indicated it is open to this possibility; however, it is not willing at this time to advance the nomination under criterion (ix) due to the time required to assemble the necessary data and make a plausible case that KKFC meets this additional biodiversity criterion. IUCN remains of the view that the nominated property has potential also to be nominated under criterion (ix).

### 4. INTEGRITY, PROTECTION AND MANAGEMENT

#### 4.1 Protection

The focus of the referral was not on protection aspects which were considered by IUCN in 2015 to meet the requirements of the Operational Guidelines. That said, IUCN had previously noted some concerns about coordination across the different legal, policy and administrative regimes operating for the national parks and wildlife sanctuaries that make up the KKFC and these concerns remain valid.

IUCN maintains its previous conclusion that, whilst noting the need for coordinated approaches across the various protected areas that comprise the forest complex, it considers that the legal protection status of the nominated property meets the requirements of the Operational Guidelines.

#### 4.2 Boundaries

As with protection, no significant concerns at the time of the 2015 evaluation were highlighted regarding the site's boundaries and configuration. There is however an issue which IUCN has become aware of concerning the international border with Myanmar (see section 5.0 Additional Comments below).

IUCN considers that the boundaries of the nominated property as proposed meet the requirements of the Operational Guidelines; however, should they change, this will need to be re-evaluated.

#### 4.3 Management

IUCN evaluated the management aspects of KKFC and concluded in 2015 that the management capacity and conservation effectiveness of the nominated property meet the requirements of the Operational Guidelines. However, integrity impacts and the effectiveness of management need to be considered regarding the relationship between DNP and local communities, in particular Karen people living within the nominated area. This latter reference concerns, in IUCN's view, the central issue of this renomination and is addressed in more detail under section 4.4 Communities below.

Additional information from the State Party indicates very active management effort on all fronts related to the nomination of KKFC and the Committee's 2015 decision. A number of positive management initiatives were outlined including enhanced community consultation, engagement and participation in management, and improved patrolling systems using the SMART (Spatial Monitoring and Reporting Tool) system which has been intensified in Kaeng Krachan NP and Kui Buri NP. The SMART patrolling system is DNP policy for all conservation areas and has been very successfully deployed in other protected area complexes in Thailand such as the Western Forest Complex (WEFCOM) where it has been effective in tiger conservation efforts. Other reported initiatives include efforts to mitigate human-elephant conflict; a source book to support sustainable community development; and a number of research projects on wildlife, natural resource management and climate change impacts.

IUCN considers the management capacity and conservation effectiveness of the nominated property meet the requirements of the Operational Guidelines; however, issues need to be considered regarding the relationship of the nomination with communities, as discussed below.

#### 4.4 Community

IUCN recalls the concerns noted in the 2015 evaluation regarding community issues and the rights of Karen people living within the nominated property. Representations from the Karen Network for Culture and Environment (KNCE), Forest Peoples Programme as well as the UNOHCHR at that time raised serious concerns regarding rights and the need for greater consultation, awareness building, participatory management, guidance on land and resource use and dispute resolution within the KKFC. The UNOHCHR outlined six recommendations in this respect. IUCN recognized the complexity of these issues in the wider context of ethnic groups in Thailand and concurred that the claims from the Karen communities of the KKFC should be addressed in a timely and consequent manner. Specifically, IUCN concurred that each of the six UNOHCHR recommendations warranted action to ensure collaborative and sustainable management of the nominated property.

The State Party tabled its roadmap outlining steps to support the nomination of the KKFC at the time of the 39<sup>th</sup> Session of the World Heritage Committee in June 2015. IUCN at that time held meetings with the State Party and welcomed the roadmap; however, IUCN was unable to fully take it into consideration in the evaluation of the nominated property as it was not submitted before the 28 February 2015 deadline as specified in the Operational Guidelines. The roadmap aspires to see the KKFC inscribed on the World Heritage List in 2016 and one of the supplementary goals is to solve "all related problems concerning community participation in land acquisition, community right and stakeholder participation, in particular for Karen communities in the KKFC with strictly regard to domestic and international laws before its inscription on the World Heritage List." In this regard, the roadmap outlines a series of actions in seven areas paraphrased below:

1. defining inhabitant status (villager nationality/status);
2. resolving land acquisition issues in Ban Pong Luek and Ban Bang Kloy villages;
3. improving community livelihoods;
4. providing a forum to hear opinions on the World Heritage nomination;
5. strengthening integrated cooperation in conservation and management;
6. reducing human-elephant conflicts; and
7. encouraging stakeholder cooperation on site research

The roadmap has a 12 month short-term timeframe but with some actions slated for longer-term action (1-2 years, 2016-2017).

Information supplied by the State Party in January 2016 reports on the progress with implementation of the roadmap. Of note is the conduct of public hearings in all four protected areas making up the KKFC and a final property-wide public hearing attended by 251 participants. These hearings were conducted in September 2015 with the support of several NGOs. A poll of 206 people taken at the property-wide hearing indicated 65.5% support for the nomination (20.4% were not in favour of the nomination and 14.1% were undecided). The public consultation generated a series of issues which the community wish to have addressed. In general, community feedback indicated that a majority are, in principle, supportive of the nomination as long as rights are respected and that inscribing the KKFC onto the World Heritage list generates a wide range of sustainable benefits to the broadest range of stakeholders. Many agreed actions were identified but most of these will require concerted time and effort to realise. For example, the action to clearly demarcate farmland from forest will most likely involve lengthy processes of survey, investigation and negotiation. Similarly, actions to restore the livelihoods of Karen people including the "relocation of certain groups" is a complex and sensitive undertaking which needs time.

The State Party also reports that Karen representatives have been invited to join the Protected Area Committees of each protected area within the KKFC, which IUCN considers a positive initial step toward more participatory management. Progress is also reported across a range of other activities, including verification of inhabitant status, allocation of agricultural farmland and improving the “quality of life and restoration of Karen’s livelihoods through promoting occupation, education, public health, and cultural tourism.”

IUCN sought the views of the UNOHCHR on the progress reported on community rights issues. In advice dated 07 March 2016, the High Commissioner’s Office responded noting it had forwarded a series of more detailed recommendations and concrete actions to the Royal Thai Government in November 2015; however, to their knowledge, these had not been integrated into the roadmap. The UNOHCHR indicated concern over the hurried nature of actions, noting that “the initiative of the Government although a good start, falls short in addressing both the immediate human rights concerns and providing sustainable and long-term solutions to the Karen communities in a more holistic and comprehensive manner.”

IUCN is also aware of other direct representations from Karen people raising concerns about the nomination and their future rights. A “Koh Sadeung Declaration of 12 February 2016” has been drafted in the name of the Committee of the Karen Network for Culture and Environment of Tenasserim. The declaration makes a number of specific points and states that their support for the nomination of KKFC is contingent on addressing these. In addition, a petition letter dated 14 March 2016 from the Pong Luk-Bangkloey Community was submitted to IUCN, again outlining a number of specific requests to be addressed before the nomination of KKFC proceeds.

In assessing the progress on this issue since 2015, IUCN acknowledges the considerable investment of effort on the part of the State Party and NGO partners to implement the roadmap. An impressive and positive array of activities has taken place over the past 8 months. Nevertheless, these have occurred within a very short timeframe and are attempting to resolve issues of considerable complexity and sensitivity. Experience has shown that time is needed to achieve sustainable and balanced outcomes that benefit communities and conservation. This is, for example, one of the main lessons learned from the successful UNDP/GEF/UNF COMPACT (Community Management of Protected Areas Conservation) project which has worked on fostering stewardship in World Heritage sites over a 13 year period.

Despite the commendable progress, IUCN continues to believe that to inscribe the KKFC on to the World Heritage List would be premature until more time is given to addressing community and rights issues. The more detailed recommendations and actions from the UNOHCHR should be taken into account more fully in implementing the roadmap. More time is needed to assess the results of experimental approaches such as

the pilot on land use demarcation in Huay Krasu village. The registration of the villagers’ rights in agricultural land (including fallows) may need to be in the form of a communal land title held by the villagers residing in the concerned village. The results of the pilot should then feed into the guidelines for Karen land use inside the KKFC. IUCN notes that the allocation of small agricultural plots as defined by DNP (7 rais of land - approximately 1.14 ha) may not be sufficient to sustain households and is at odds with traditional approaches to rotational fallow farming practised by Karen people.

The general support to the nomination reported by the State Party is reassuring; however, there remain dissenting views from some Karen representatives and support for the nomination is linked to the resolution of a number of longstanding issues.

IUCN notes references to the relocation of certain groups from the nominated protected areas. IUCN’s position on the relocation of communities from protected areas or for other purposes is in line with a number of international rights-based agreements such as International Labour Organization (ILO) Convention 169 and the UNDRIP. Although this is not considered an ideal practice or the first or only option, it remains a legitimate option under certain conditions. IUCN notes five essential conditions that should be met for any relocation: 1) no forced relocation; 2) relocation should be properly justified; 3) all communities concerned should agree in full to the relocation and its conditions, through proper consultative and fair processes; 4) the communities should be better off after the relocation and more secure; and 5) all the above should be demonstrable, transparent, and accountable.

In summary, IUCN welcomes the State Party’s roadmap which, whilst offering a sound general framework to address community and rights issues, is oversimplified and lacking in detail with overly ambitious timeframes for such complex issues. IUCN considers sustained efforts are needed to address these issues. In particular, more time is needed to build trust and secure long-term community stewardship of the nominated property, as the issues are complex and involve sensitive cultural, ecological and livelihood considerations. An unambiguous legal and policy framework within the DNP is essential to guide community engagement, one that can be consistently implemented regardless of DNP staff turnover. Lastly, the actions within the roadmap will need ongoing attention beyond the current timeframe of 2017.

IUCN maintains its previous conclusion that any recommendation for inscription would be premature for this property, and that the referral mechanism would enable more time necessary for the State Party to seek resolution of issues that have been raised by communities and the UNOHCHR, and for the Committee to be able to verify if these issues have been addressed in a sustainable and balanced manner.

## 4.5 Threats

As IUCN's 2015 evaluation noted, human activities such as farming, settlement, forest-product collection, wildlife hunting, and domestic animal raising, can be typically found in the KKFC. Conversion, encroachment and expansion for agriculture are particularly relevant threats to the KKFC. The satisfactory resolution of issues referred to above will be essential to ensure this threat is mitigated. The State Party provides positive reports on increased management effort to engage with communities both in and around the forest complex, in particular the buffer zone from where most human pressure emanates.

Anti-poaching measures in Kaeng Krachan and Kui Buri NPs have also been elaborated upon by the State Party including an increase in patrol units and the adoption of the SMART patrolling system across all Thai conservation areas. These are encouraging and positive developments. Effective partnerships with NGOs, the Thai Military and Border Police have been at the heart of Thailand's successful anti-poaching campaign and it is essential that these programmes continue into the future.

In conclusion, IUCN maintains its view that the integrity, protection and management of the property have the potential to meet the requirements of the Operational Guidelines, but that the satisfactory resolution of rights issues with Karen people living inside the property requires more time to be effectively addressed.

## 5. ADDITIONAL COMMENTS

### 5.1 International boundary demarcation

IUCN in its 2015 evaluation commented upon the positive conservation connectivity opportunities afforded both by the adjoining intact forests of Myanmar and corridor initiatives within Thailand. The Committee's 2015 decision encouraged the concerned State Parties to continue to progress with these opportunities. The State Party of Thailand's report of January 2016 stresses its commitment to biological connectivity both domestically and transboundary. It reports on recent developments to establish corridors between the WEFCOM and KKFC. In addition, it has clarified that the ecological corridor between Kaeng Krachan NP and Kui Buri NPs is being added to Kui Buri NP (an additional 14,109 ha). Initiatives to advance connectivity across the Thai-Myanmar border were also noted, including the development of a memorandum of understanding on "Cooperation in Protected Area Management and Biodiversity Conservation in Transboundary Biological Corridor between Thailand and Myanmar" and proposals for DNP officials to visit Myanmar in March-April 2016 to further cooperation across the Tenasserim Range.

IUCN notes that at the time of preparation of this report, it had received, on 17 March 2016, a copy of a letter from the Permanent Delegation of the Republic of the Union of Myanmar, addressed to the World

Heritage Centre, suggesting that 34% of the nominated property lies within Myanmar and not Thailand. The consideration of this matter is for UNESCO, via the World Heritage Centre. In the meantime, the Centre has recommended that IUCN continue to work on the nomination whilst this matter is clarified with the States Parties concerned. IUCN notes that, in the event that land were to be removed from the nomination, there would be a need to reconsider its evaluation, according to the extent of the nominated property.

## 6. APPLICATION OF THE CRITERIA

The **Kaeng Krachan Forest Complex** has been nominated under criterion (x).

### Criterion (x): Biodiversity and threatened species

The KKFC property is reported as having a rich fauna; its bird diversity is particularly high compared to other World Heritage sites in the same biome. However, its floral richness appears to be lower. Endemic and threatened species are not found in particularly high numbers compared to other sites, but they include some compelling species, such as the critically endangered Siamese Crocodile, and the endangered Tiger and Asian Elephant. KKFC has values which are distinct but complementary to sites within the same biogeographic region. The nominated property also coincides with the overlap of a diverse range of zoogeographic and floral regions and so exhibits a particularly diverse biota. KKFC potentially retains the full range of mammals, birds and reptiles found in the region, including, most impressively, 8 species of wild cats including Tiger, Leopard (NT), Clouded Leopard (VU), Marbled Cat (NT), Fishing Cat (EN), Asian Golden Cat (NT), Jungle Cat (LC) and Leopard Cat (LC). A high number of globally threatened wildlife species, some 15 mammal, 8 bird, and 7 reptile species, have been recorded in the KKFC and recent surveys have confirmed that the nominated property continues to support viable populations of these key threatened species.

IUCN concludes that the nominated property has strong potential to meet this criterion.

## 7. RECOMMENDATIONS

IUCN recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC/16/40.COM/8B.ADD and WHC/16/40.COM/INF.8B2.ADD;
2. Recalling Decision 39 COM 8B.5;
3. Refers the nomination of the **Kaeng Krachan Forest Complex (Thailand)** back to the State Party, taking note of the strong potential for this property to meet criterion (x), in order to allow it to more fully

address the concerns that have been raised by the Office of the United Nations High Commissioner for Human Rights concerning Karen communities within the Kaeng Krachan National Park, including the implementation of a participatory process to resolve rights and livelihoods concerns and to achieve a consensus of support for the nomination that is fully consistent with the principle of free, prior and informed consent;

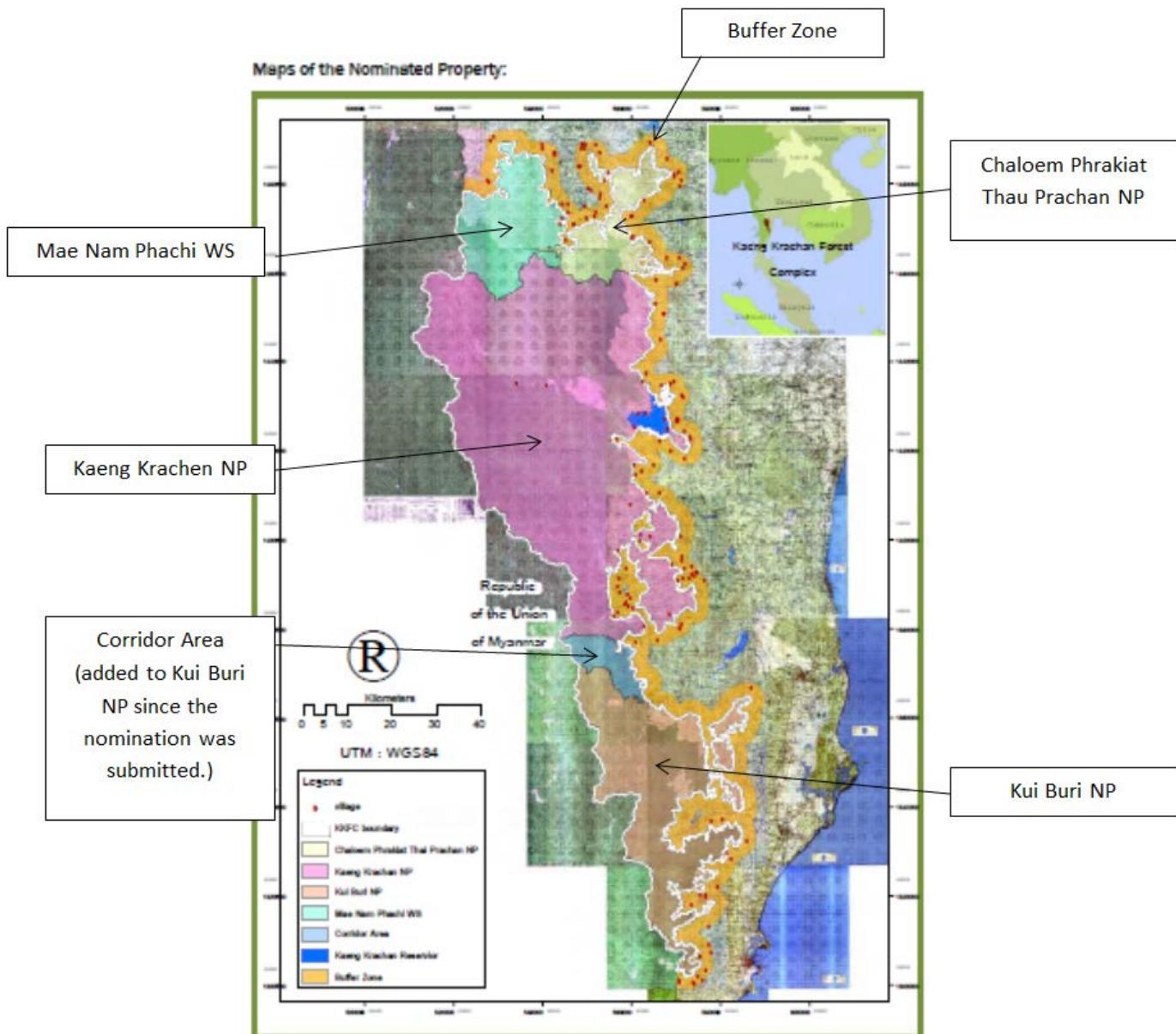
4. Encourages the State Party to consider nominating the property also under criterion (ix);

5. Also encourages the State Party to continue the commendable initiatives on future biological connectivity opportunities, including those between the

nominated property and Thungyai - Huai Kha Khaeng Wildlife Sanctuaries in Thailand and, working in partnership with the State Party of Myanmar, between the nominated property and neighbouring transnational protected areas within the Taninthaya Forest Corridor in Myanmar;

6. Commends the State Party and partner NGOs for their increased efforts to address improved conservation management within the nominated property, including improved anti-poaching patrol systems, community engagement in Kui Buri National Park dealing with human/elephant conflict, and enhanced ecological research and monitoring, and encourages the State Party to continue with these efforts.

**Map 1:** Nominated property, its protected areas and buffer zone



**ARAB STATES**

## **SANGANEB MARINE NATIONAL PARK AND DUNGONAB BAY - MUKKAWAR ISLAND MARINE NATIONAL PARK**

**SUDAN**



Corals in Dungonab Bay - © IUCN Hany El Shaer



# WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

## SANGANEB MARINE NATIONAL PARK AND DUNGONAB BAY/MUKKAWAR ISLAND MARINE NATIONAL PARK (SUDAN) – ID No. 262 Ter

**IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE:** To refer the property under natural criteria.

**Key paragraphs of Operational Guidelines:**

Paragraph 77: Property has potential to meet natural criteria.

Paragraph 78: Nominated property does not meet integrity or protection and management requirements.

**Background note:** The nomination of Sanganeb Marine National Park and Dungonab Bay – Mukkawar Island Marine National Park was referred by the 39<sup>th</sup> Session of the World Heritage Committee (Decision 39 COM 8B.3), following a recommendation to defer the property by IUCN. The Committee's decision requested the State Party to:

- a) Review, with the support of IUCN, the boundaries of the nominated property to better define the nominated area and buffer zones to ensure that all the natural attributes which contribute to the globally significant values are appropriately included and that integrity is enhanced. Specifically, consideration should be given to including the designated marine buffer zone area of Sanganeb Marine National Park and other reefs (included in the buffer zone) within the nominated area; to expanding the nominated area to include more of the terrestrial component of Dungonab Marine National Park designated buffer zone; and to incorporating other attributes contributing to Outstanding Universal Value which lie within the linking buffer zone;
- b) Update the management plans for Sanganeb Marine National Park and Dungonab Marine National Park and develop an integrated management framework for the whole property that guides coordinated inter-agency policy and management and promotes the effective involvement of different stakeholders including local communities;
- c) Demonstrate increased financial resources and staffing capacity to ensure an adequate level of effective management of the nominated property and provide assurances to the World Heritage Committee on commitments to maintain ongoing sustainable financing.

The attention of the Committee is drawn to the earlier IUCN evaluation for 39COM 8B (including its background note on the earlier consideration of this nomination by the Committee) to avoid repeating information.

### 1. DOCUMENTATION

**a) Date nomination received by IUCN:** Original nomination received on 18 March 2014. Revised version after 39COM referral decision received on 2 February 2016.

**b) Additional information officially requested from and provided by the State Party:** No additional information was requested, beyond that requested in the Committee decision noted above. IUCN was represented at a meeting "Sanganeb Atoll and Dungonab Bay - Mukkawar Island National Parks in Sudan: Strengthening scientific partnerships to support the listing of both Marine Protected Areas as a UNESCO World Heritage Site" held on 25 February 2016 and hosted by the World Heritage Centre, and organised with the State Party in partnership with the Cousteau Foundation, the Red Sea University and others. The report of this meeting was also submitted as supplementary information to the nomination.

**c) Additional literature consulted:** Various sources listed in the nomination, and in the earlier IUCN evaluation report were consulted. No additional literature was consulted in reviewing the referral, except the additional information submitted by the State Party noted above.

**d) Consultations:** The IUCN representatives from the 2014 field visit, in addition to earlier consultees.

**e) Field visit:** Original field mission undertaken by Naomi Doak and Hany El Shaer, 9 - 17 September 2014. As this was a referral decision, no further field visit was undertaken.

**f) Date of IUCN approval of this report:** May 2016

### 2. SUMMARY OF NATURAL VALUES

The nomination presents a configuration conceptually similar to the previous proposal, with two component parts based on two marine national parks, and a connecting buffer zone. Thus the overall description of the values in the previous (39COM) IUCN evaluation remains substantially valid, but there are a number of changes to be noted. These firstly relate to the boundaries. The most significant of these judging by the revised but small scale maps submitted is the excision of some parts of Dungonab Bay–Mukkawar Island Marine National Park (DMNP), which now appear to be included in the buffer zone. The new nomination suggests that the Sanganeb Marine National Park (SMNP) component part has an area of 65,500ha and DMNP is 25,660ha, but these figures appear to be incorrect, since SMNP is clearly a smaller

area that DMNP (in the original nomination the area SMNP is given as 691ha) and DMNP appears to have reduced in mapped area, but not to the extent which is presented within the revised nomination. DMNP was listed as 198,832 ha in the original nomination. The information provided is further conflicted as the Executive Summary table of components and areas provides different areas to that provided in the body of the nomination dossier and neither set of figures adds up to the totals given. The maps provided in the additional information are not sufficient to be able to determine the reasons for these differences. In addition some of the cardinal points of the boundaries are mapped differently in the earlier and revised nomination, which is likely a mapping error rather than a change in boundaries.

The points raised by IUCN previously remain to be considered regarding whether the precise attributes that convey Outstanding Universal Value (OUV) in the marine environment are included within the boundaries of the nominated property as revised, and further information is not provided to clarify this matter. IUCN recalls its suggestions to consider a number of specific areas with potential values, some of which were identified in the much earlier 1983 evaluation of Sanganeb Atoll.

Two further notable changes are indicated in the revised nomination. The first is that the State Party is not including criterion (viii) as a basis for OUV. IUCN was less convinced in its earlier (39COM) evaluation of the potential under this criterion than the justification for the other three natural criteria, and concurs that the removal of this criterion simplifies the overall evaluation by focusing on the established potential for OUV in relation to criteria (vii), (ix) and (x). Secondly the State Party has eliminated the suggestion that "The Red Sea Hills, rising over 1500m, create a stunning backdrop to the area's gently sloping coastal plain" as an element of the justification of criterion (vii). IUCN had noted that this attribute was not within the nominated property, creating a question on the appropriateness of the boundaries of the property. IUCN interprets the boundary modifications to the DMNP component part of the property may potentially be related to this change in the description of OUV, although text from the nomination also makes clear these areas are important in protecting the coastline areas of the nominated property. IUCN consider that the property's underwater scenic values are potentially sufficient to justify criterion (vii) without considering the wider setting of the property that is provided by the Red Sea Hills, so is of the view that this change does not make a crucial impact on the case for Outstanding Universal Value under criterion (vii).

### **3. COMPARISONS WITH OTHER AREAS**

No additional considerations are provided in relation to this aspect of the nomination. IUCN considers that comparative analysis has demonstrated the potential of the nominated property to meet criteria (vii), (ix) and (x) which are the criteria now proposed within the revised nomination. Nevertheless additional

comparative analysis of any of the attributes with potential to add to this potential is lacking.

## **4. INTEGRITY, PROTECTION AND MANAGEMENT**

### **4.1 Protection**

IUCN previously evaluated the protection of the nominated property as meeting the requirements of the Operational Guidelines, whilst noting some concerns. IUCN considers the promised new work on the management of the property, as noted below, has the potential to rectify those concerns. It is clearly a fundamental requirement that the precise boundaries are fully clarified, with adequate maps. There is no additional information included in the nomination that specifically relates to protection, and therefore IUCN reiterates its previous conclusion.

IUCN, whilst noting concerns regarding coordination between levels of government and the relative protection of the buffer zone, considers that the protection status of the property meets the requirements of the Operational Guidelines.

### **4.2 Boundaries**

IUCN notes that, in relation to the requests noted in the Committee's decision, the recommendation to revise the boundaries has not been directly discussed with IUCN since the 39<sup>th</sup> Session, although the State Party has received some support late in the process of revision via the African World Heritage Fund. As noted above, IUCN considers that the revised boundaries of the nominated property are not fully clear, and that the additional information provided does not clarify the actual boundaries, nor the areas of the proposed component parts, and nor, most importantly, whether appropriate attributes of OUV in the marine environment are included in the property or not. The adjustment of the landward boundary in DMNP is also not explained. Given this uncertainty, and the broadly similar configuration of boundaries, IUCN maintains its earlier evaluation that the boundaries as defined are not adequate. IUCN considers that the boundaries of the property need to be both more clearly described, and possibly further amended. It remains essential that the State Party clarify the boundaries and buffer zone of the property with both IUCN and the World Heritage Centre, consistent with the mapping standards prescribed in the Operational Guidelines.

IUCN considers that the boundaries of the property do not meet the requirements of the Operational Guidelines, notably as key attributes of potential Outstanding Universal Value are not included in the nominated property.

### **4.3 Management**

The additional information confirms progress is being made to address the shortcomings in protection and management noted in the previous evaluation. In addition the meeting held in UNESCO in February 2016 assembled an impressive range of technical

partners and confirmed further information on progress in relation to establishing effective management of the property. Nevertheless the work on the preparation of an appropriate management plan is still at an early stage, and is not completed.

Specifically, the revised nomination notes two areas of particular focus in strengthening management. Firstly on management planning for the overall property, the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) has offered in December 2015 to support producing a common integrated management plan for the property (and the nomination notes is also supporting the completion of the management plan for DMNP). The nomination reports that the Wildlife Conservation General Administration (WCGA) has started steps to prepare an Integrated Management Plan for the property, and states that this will be "comprehensive, participatory and with a clear framework of approved policy". Further details on the scope of this plan are included in a new Annex (Annex 13) to the nomination. Secondly the nomination notes that "the Cousteau Organization is willing to develop a partnership with WCGA for developing Ecotourism Strategy for the property". The nomination finally indicates that recruitment of 35 rangers has been achieved, a significant increase in staffing capacity over the number cited in the previous nomination which was only 15. Over and above the staffing increases, no additional substantive information was provided on commitments to increase financial resources for the management of the nominated property.

IUCN considers this progress in strengthening management is to be welcomed, and it is clear that there are a range of significant partners who are increasing their engagement to secure the necessary work to enable the nomination to be completed, who participated in the February 2016 meeting held in UNESCO. However at the present time the necessary management planning for the nominated property is clearly not yet in place, and this work must be completed in order for the property to meet the requirements set out in the Operational Guidelines. IUCN further notes the importance of settling the agreed boundaries for the nominated property and the buffer zone as a precursor to completing the management plan, and the proposed ecotourism strategy.

IUCN considers that the management of the property does not meet the requirements of the Operational Guidelines.

#### 4.4 Community

No detailed information is provided in the supplementary information regarding community matters, but it is noted that there are projects related to livelihoods being undertaken. As noted above, it is indicated that the process of preparing the management plan is intended to be participatory.

#### 4.5 Threats

The situation in the previous IUCN report remains a reasonable summary of threats to the property.

In conclusion, for the reasons outlined above concerning boundaries and the need to complete the necessary management plans for the property, IUCN considers that the integrity, protection and management of the property do not meet the requirements of the Operational Guidelines.

### 5. ADDITIONAL COMMENTS

#### 5.1 Justification for Serial Approach

IUCN notes that the nominated property comprises two geographically separated areas with the linking marine buffer zone not included in the nominated area. IUCN previously considered the serial approach had not been fully justified and considers that more work is needed to outline how the serial approach being proposed, and the role of the linking buffer zone, will provide the most effective option for the protection of Outstanding Universal Value. In particular the serial approach also needs to be justified in terms of the choice of areas and their values which collectively contribute to demonstrating Outstanding Universal Value.

### 6. APPLICATION OF THE CRITERIA

**Sanganeb Marine National Park and Dungonab Bay - Mukkawar Island Marine National Park** has been nominated under the natural criteria (vii), (ix) and (x).

#### Criterion (vii): Superlative natural phenomenon or natural beauty and aesthetic importance

Sanganeb is an isolated, atoll-shaped coral reef structure in the central Red Sea, 25 km off the shoreline of Sudan. Surrounded by 800 m deep water, the atoll coral reef systems are part of the northernmost coral reef systems in the world. Sanganeb is a largely pristine marine ecosystem providing some of the most impressive dive sites on earth resulting from the very high diversity of physiographic zones and reefs characterized by an extraordinary structural complexity. Dungonab Bay and Mukkawar Island is situated 125 km north of Port Sudan and includes within its boundaries a highly diverse system of coral reefs, mangroves, seagrass beds, beaches, intertidal areas, islands and islets. The clear visibility of the water, coral diversity, marine species and pristine habitats and colourful coral reef communities create a striking land and seascape. It is not clear whether all the attributes of Outstanding Universal Value are included in the nominated area.

IUCN considers that a reconfigured nomination, addressing integrity issues, including in relation to boundaries, has the potential to meet this criterion.

#### **Criterion (ix): Ecosystems/communities and ecological/biological processes**

SMNP-DMNP is located in an ecologically and globally outstanding region, the Red Sea, which is the world's northernmost tropical sea, the warmest and most saline of the world's seas. The serial site is located in a Global 200 priority biogeographic region: the Red Sea and a priority marine province, the Gulf of Aden. The nominated property is part of a larger transition area between northern and southern Red Sea biogeographic zones and contains diverse and mostly undisturbed habitats which are outstanding examples of the northernmost tropical coral reef system on earth. The nominated property and its surrounding area include reef systems (13 different bio-physiographic reef zones in SMNP), atoll, lagoon, islet, sand flats, seagrass, and mangrove habitats and display a diversity of reefs, from living reefs to ancient fossil reefs. These habitats are home to populations of seabirds (20 species), marine mammals (11 species), fish (300 species), corals (260 species), sharks, manta rays and marine turtles, and the site provides important feeding grounds for what is perhaps the most northerly population of endangered Dugong. SMNP is an important larvae export area and hosts spawning sites for commercial fish species. The nominated property contains features that are central to potential Outstanding Universal Value, but important attributes of the global significance of the region may not be included in the nominated area.

IUCN considers that a reconfigured nomination, addressing integrity issues, including in relation to boundaries, has the potential to meet this criterion.

#### **Criterion (x): Biodiversity and threatened species**

The property represents a complete and relatively intact marine ecosystem of global and regional significance, within the Red Sea. It is home to a rich reef ecosystem, containing over 300 fish species and includes some of the most expansive seagrass beds of the Red Sea, and containing at least 9 of the 10 regional seagrass species. It is also home to globally significant populations of endangered species including sharks, cetaceans, and marine turtles with the eastern shore of Mukkawar Island being one of the most important marine turtle nesting sites in the Red Sea.

Dungonab Bay supports a globally significant dugong population, significant given that the Red Sea and the Persian Gulf host the last remaining healthy populations in the Indian Ocean. The whale and manta ray seasonal aggregations in DMNP are unique to the entire Western Indian Ocean Region and the marine park is internationally recognized as an Important Bird Area for both resident and migratory birds. DMNP is also unique as a home to species from different biogeographic origins: both northern and southern Red Sea species. SMNP lies in a regional hotspot for reef fish endemism. The property generally supports a higher than average subset of endemics found in the Red Sea, including the richest diversity of coral west of

India and a number of coral species which are at the limits of their global range. Key attributes of Outstanding Universal Value may not be currently included in the nominated area.

IUCN considers that a reconfigured nomination, addressing integrity issues, including in relation to boundaries, has the potential to meet this criterion.

## **7. RECOMMENDATIONS**

IUCN recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC/16/40.COM/8B.ADD and WHC/16/40.COM/INF.8B2.ADD;

2. Recalling Decision 39 COM 8B.3;

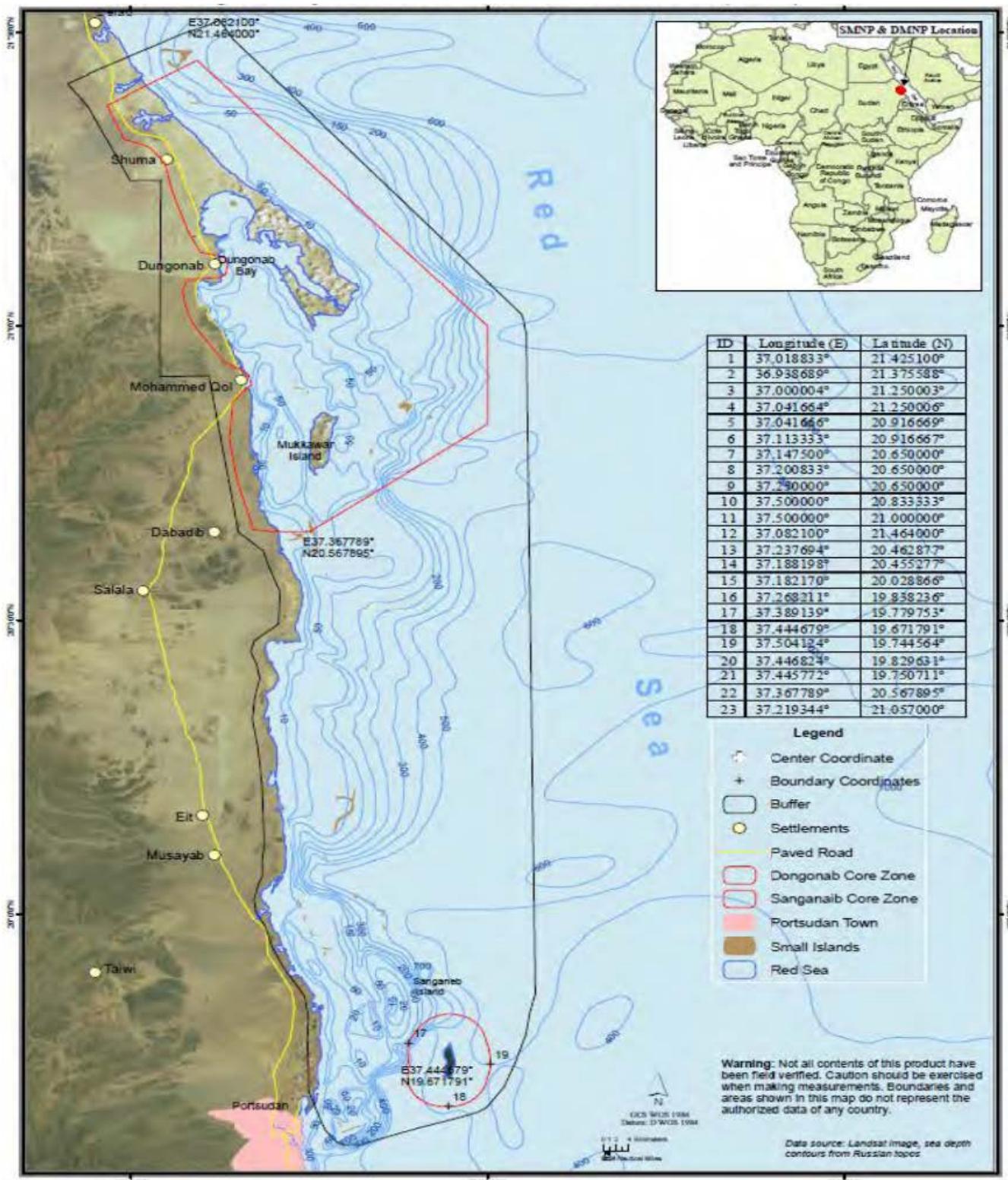
3. Refers the nomination of the **Sanganeb Marine National Park and Dungonab Bay – Mukkawar Island Marine National Park (Sudan)** back to the State Party, taking note of the strong potential to meet natural criteria (vii), (ix) and (x), in order to allow it to revise and complete the nomination, addressing the following actions:

a) Review, with the support of IUCN, the boundaries of the nominated property to better define the nominated area and buffer zones to ensure that all the natural attributes which contribute to the globally significant values are appropriately included and that integrity is enhanced. Clear maps at a large scale, with a clear and specific description of the nominated property should be provided, and a clear statement on the attributes of Outstanding Universal Value that are confirmed as being located within the property boundary;

b) Complete the work to update the management plans for Sanganeb Marine National Park and Dungonab Marine National Park and to complete the preparation of an integrated management framework for the whole property that guides coordinated inter-agency policy and management and promotes the effective involvement of different stakeholders including local communities;

c) Demonstrate increased financial resources to support the operational aspects of effective management of the nominated property and provide assurances to the World Heritage Committee on commitments to maintain ongoing sustainable financing.

4. Urges the State Party to work directly with the World Heritage Centre and IUCN in order to assure that the actions that it undertakes to revise the nomination fully meet the necessary requirements of the Operational Guidelines.

**Map 1:** Revised nominated property and buffer zone



**EUROPE / NORTH AMERICA**

# **TECTONO-VOLCANIC ENSEMBLE OF THE CHAÎNE DES PUYS AND LIMAGNE FAULT**

**FRANCE**



Puy de Dôme - © IUCN Jospehine Langley



# WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

## TECTONO-VOLCANIC ENSEMBLE OF THE CHAÎNE DES PUYS AND LIMAGNE FAULT (FRANCE) – ID No. 1434 Rev

**IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE:** Not to inscribe the property under natural criteria.

**Key paragraphs of Operational Guidelines:**

Paragraph 77: Nominated property does not meet World Heritage criteria.

Paragraph 78: Nominated property does not meet integrity or protection and management requirements.

**Background note:** The tectono-volcanic ensemble of the Chaîne des Puys and Limagne Fault was nominated in 2013 and considered by the World Heritage Committee at its 38<sup>th</sup> Session in Doha, Qatar, 2014. IUCN recalls its evaluation at that time recommended that the nominated property not be inscribed. The Committee's decision in 2014 (Decision 38 COM 8B.11) referred the nomination back to the State Party to a) "specify the tectonic and structural elements interacting with monogenetic volcanism in this geological scale model, which are outstanding examples representing major stages of Earth's history on which is based outstanding universal value"; and b) "to provide additional information about the management of the site in relation to the public and private local stakeholders". Decision 38 COM 8B.11 also requested a "deepening of the dialogue" with respect to this nomination between the State Party and IUCN with the support of the specialist earth science organisations. In addition the Committee requested that the State Party invite a mission to "implement the upstream process" which is considered to assist in relation to complex nominations. The State Party and IUCN established jointly agreed terms of reference, with appropriate and mutually agreed disclaimers, for an Independent Technical Mission (ITM) which took place 4-8 October, 2015. IUCN invited the State Party to raise any questions on the report of the ITM if it wished, but none were raised. Subsequently the State Party submitted a substantial complementary dossier with annexes in January 2016 and which has been considered in this evaluation. IUCN is also updating its thematic study on "World Heritage Volcanoes" in line with the Committee's request in Decision 38 COM 8B.11 5. IUCN further confirmed via the World Heritage Centre that criterion (vii) remains proposed by the State Party. The Committee's attention is drawn to the 2014 evaluation (WHC-14/38.COM/INF.8B2) in order to avoid repeating information.

### 1. DOCUMENTATION

**a) Date nomination received by IUCN:** Original nomination received on 20 March 2013. The State Party's complementary information subsequent to Decision 38 COM 8B.11 was received on 02 February 2016, and is an extremely large volume of information, unprecedented for a process of referral in IUCN's experience, and amounting to 685 pages (278 pages of supplementary material, and 407 pages of technical annexes).

**b) Additional information officially requested from and provided by the State Party:** As a referral, there is no possibility to request supplementary information on the original nomination, apart from the information submitted by the State Party as noted above.

**c) Additional literature consulted:** An extensive list of references were reviewed in the original nomination, and in the earlier IUCN evaluation report. Additional references included: Bitschene, P., Brilha, J. and Nakada, S. November 2015. *Chaîne des Puys – Limagne Fault Nomination to the World Heritage List. Report of the Independent Technical Mission*. 4-8 October 2015. UNESCO Global Geoparks. <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/unesco-global-geoparks/>. Accessed 28 April 2016. UNESCO 2016. *UNESCO Global Geoparks - Celebrating Earth Heritage, Sustaining local Communities*. UNESCO, Paris, France. Ministère de L'environnement, de

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**d) Consultations:** Further consultation has taken place with the IUCN representatives from the 2013 field mission and, indirectly with the ITM through their report. 12 reviewers were consulted in the 2014 evaluation of this property and 7 additional reviews of the revised nomination were received, in the limited time available to consider reviewers.

**e) Field visit:** Original field mission undertaken by Josephine Langley and Thomas Casadevall, 15-21 September 2013.

**f) Date of IUCN approval of this report:** May 2016

## 2. SUMMARY OF NATURAL VALUES

The tectono-volcanic ensemble of the Chaîne des Puys and Limagne Fault is nominated as it was in 2013 with the same boundaries, area and under the same natural criteria (vii) and (viii). To reiterate, the nominated property covers some 24,250 ha located in the Région Auvergne within the geological area known as the Massif Central. A buffer zone of some 16,280 ha has been proposed to protect both the nominated area as well as a number of important vantage points which allow visitors to overlook the volcanic chain. The boundaries of the nominated property were drawn up to include geological features and landscapes which characterise the tectono-volcanic assemblage including:

- the Limagne Fault, a north-south trending geological structure which is composed of several successive segments, separating the Plateau des Dômes to the west (which constitutes the basement of the Chaîne des Puys) from the adjacent plain to the east;
- the series of monogenetic volcanoes which form the north-south alignment of the Chaîne des Puys, which is a dormant volcanic field with the last eruptions dated to about 8,000 years before present;
- the five major lava flows of the Chaîne des Puys;
- the inverted relief of the Montagne de la Serre, which results from erosive action around a Pliocene volcanic lava flow; and
- the dammed lakes of Aydat and Cassière, which illustrate the impact of volcanism on the pre-existing topography.

The Chaîne des Puys includes approximately 80 visible volcanic structures, as well as around 20 that have been covered by other more recent eruptions with their ashes or their flows. These structures, dating from the Pleistocene to the Holocene, are aligned on a north-south axis 32km long and 4km wide, parallel with the Limagne Fault. The Chaîne des Puys thus includes a collection of monogenetic volcanoes with varied forms. Due to their relative geological youth, the volcanoes have undergone limited geological erosion and display varied features.

The nominated property has been subject to a long history of human occupation and use. As a result, the landscape of the property is, and has been, subject to varying degrees of human intervention and is substantially altered by human activity over the long term. It has seen human presence for approximately 5,000 years, with a significantly increased presence for over 2,000 years since Roman occupation. Some 30 communes cover the whole site and its buffer zone, yet the nominated area is relatively lightly populated in the context of Europe today. Approximately 4,000 people live within the nominated area and 25,000 in the buffer zone.

As noted above the Committee's referral decision noted "the deep divergence in the scientific interpretations raised following the evaluation of this nomination." IUCN emphasises that a referral decision, as taken by the Committee, does not normally include

any provision for a mission and the ITM undertaken in this case was limited to providing advice on the technical aspects of the nomination, in relation to geological values, and not designed to re-evaluate the nominated property in the field. It is also important to recall that the terms of reference for the ITM explicitly note that: "The mission team is not granted any right or authority to assume or create any obligation or responsibility, express or implied, on behalf of or in the name of IUCN or the State Party, but is intended to assist and support the dialogue process." As the report of the ITM was delivered in November 2015, the IUCN Panel has only considered this report in parallel with the documentation submitted by the State Party in 2016. The ITM report was considered as any normal input submitted to IUCN as part of the evaluation process.

The emphasis within the Committee's 2014 decision was on the case for the nominated property to meet criterion (viii) and this has similarly been the focus of the ITM's recommendations. The ITM advised the State Party on six aspects which it suggested be further elaborated within the complementary information. Following this advice, the State Party, in its response to the referral decision, has reframed the presentation of the values of the nominated property to emphasize the ensemble or combination of geological features and processes rather than the individual attributes of volcanology, tectonics and rifting.

Additional and updated information on the nominated property has been provided by the State Party, mainly in response to issues related to criterion (viii) and related to integrity, protection and management issues which were noted within IUCN's 2014 evaluation. No extra information has been provided with respect to the justification for criterion (vii), which is unexpected given that criterion (vii) has been retained as a basis for the nomination.

## 3. COMPARISONS WITH OTHER AREAS

As noted above with respect to criterion (vii) no additional information has been provided by the State Party to further justify this criterion on the basis of the comparative analysis. IUCN's evaluation of the comparative values of the nominated property under criterion (vii) therefore continues to be based on the case made within the original nomination. IUCN reiterates that the landscape of the nominated property is essentially not a natural one, and does not correspond in any way to the application of criterion (vii), as this is effectively a cultural landscape. There are vast numbers of sites worldwide which exhibit more spectacular natural landscapes. IUCN concluded previously that "similar pastoral landscapes to that in the nominated property can be found elsewhere in France and in Western Europe. There are no viewscapes in the nominated property of spectacular contrast in height, width, depth, slope angle, or complexity, and the mission noted superlatives are generally not used to describe the landscape and its features". A relevant comparison is that of the Swiss Tectonic Arena Sardona (Switzerland) which, in spite

of its dramatic landscape that is much more natural than the nominated property, was not inscribed under (vii). The aesthetic natural qualities of the nominated property's landscape are also considered to be seriously impaired by the inclusion of prominent infrastructure such as telecommunication towers, roads, quarries, and military facilities. The State Party has provided details of the management of developments and built heritage within the nominated property; however, in IUCN's view, they detract fundamentally from the naturalness of the landscape. In the case of criterion (vii), IUCN does not, for example, accept that the large antenna (as a clearly non-natural feature) can be regarded as having a positive impact on the natural landscape. A further example concerns the presence of the Gallo-Roman Temple of Mercury within the nominated property. The temple is without doubt of historical value but is obviously a cultural, not a natural feature, and therefore not appropriate as basis for the justification of criterion (vii).

With respect to criterion (viii), the State Party has extensively revised the original comparative analysis and the basis of these values is put forward as a draft Statement of Outstanding Universal Value but to an incorrect format that does not meet the requirements under the Operational Guidelines (Paragraph 132.3). The State Party has put forward in a new assessment the relative importance of this site against a different frame of reference, specifically the interdependence of lifting, rifting and subsequent volcanism exhibited in the relative small area of the nominated property. Although this was advanced in 2013 as an aspect of the property's proposed Outstanding Universal Value it was not stressed as the main basis for the nomination in the original comparative analysis, which focussed most prominently on the volcanic values of the property. IUCN's 2014 evaluation consequently also focussed upon the volcanic values. The new analysis focuses more specifically on the interplay between:

- tectonic faults associated with the orogeny of the Alps;
- inverted relief created by valley basalt flows and subsequent erosion, of which the State Party argue that Montagne de la Serre is the most spectacular example; and
- monogenetic volcanoes with their broad spectrum of structures and associated flows.

The revised comparative analysis covers a much wider range of global sites than the original analysis. It assesses the relative merits of the Chaîne des Puys and Limagne Fault against other sites using a semi-quantitative system to score sites against a set of criteria chosen to be of relevance to the nominated property. The comparative analysis is undertaken in three areas corresponding to the advice of the ITM *viz*: inverted relief, tectonic rifting and monogenetic volcanoes. IUCN notes below firstly the key conclusions of the State Party's new analysis, and then comments upon these.

With respect to inverted relief the analysis compares the nominated property to nine other global sites across a series of nine attributes. Here the Chaîne des

Puys and Limagne Fault is ranked in the new analysis as the highest of all nine sites. The Montagne de la Serre which exhibits the inverted relief phenomenon is claimed to be one of the most studied inverted relief structures in the world and the complementary dossier concludes that it is intimately linked to the tectonic and volcanic attributes of the nominated property and suggests it can be considered as an "eminently representative" example of this type of geomorphological structure.

For the rifting aspects of the nominated property, the Limagne Fault is compared to 19 other sites across some 20 attributes related to normal faults, inverted relief and volcanism. Here again the analysis of the State Party scores the Chaîne des Puys and Limagne Fault highest of all these sites. Whilst noting the difficulties of comparing in the strict sense rifts which cover very different types (the Limagne Fault is one of four rift types recognised globally), the analysis concludes that the nominated property, at the scale of global rifts, provides a remarkable illustration of the tectonic phenomenon of the formation of grabens through rifting, volcanism and uplifting, all in a small area.

In terms of the nominated property's value as a monogenetic volcanic field, it is compared with a larger number of selected monogenetic volcanic field sites (including the monogenetic volcanic field of the El Pinacate and Gran Desierto de Altar Biosphere Reserve World Heritage site in Mexico which was excluded from the previous analysis). Some 54 properties were analysed, again using a scoring system across ten attributes. Here the Chaîne des Puys and Limagne Fault is scored among the 12 top-ranked sites, and ranked equal highest with the Michoacán-Guanajuato site in Mexico. On the basis of this analysis the dossier concludes that on a global scale, the Chaîne des Puys monogenetic volcanic field is considered distinctive in showing a diversity of volcanic processes and products leading to a variety of volcanic edifices, chemical compositions, and landscapes.

The additional explanations in the complementary dossier also rely on new bibliographic material, which is provided to support the case that these tectonic and volcanic attributes are inseparably linked to form a model of global applicability. Here the comparative analysis indicates in excess of 120 scientific publications relating to the area and its geology. IUCN has previously noted that the Chaîne des Puys and Limagne Fault featured in the developing understanding of volcanology and tectonics in the 18<sup>th</sup> and 19<sup>th</sup> Centuries. Whilst there appears a period of time when little research activity is evident for the site, it has certainly seen a significant recent increase in research activity. Some 18 scientific publications dated between 2013 and 2015 are listed in the complementary dossier covering the period since the original nomination was submitted.

IUCN acknowledges the interest and value of this site to the specialist geological science community as evidenced by the 27 letters which were not available at

the time of the original evaluation and by a number of reviewers who supported the site's inscription and have participated in the work to complete the supplementary information. IUCN further notes that the ITM in its mission report confirms that, whilst the 27 supporting letters came from a range of key organisations, it is not clear that these letters were written from the perspective of the World Heritage Convention and the concept of Outstanding Universal Value. The ITM report notes that "...most of the letters do not specifically highlight an 'outstanding universal value' of the proposed property, probably because some of the scientists are not aware of criterion (viii)".

IUCN welcomes the revised comparative analysis. However the IUCN World Heritage Panel and a number of reviewers have identified shortcomings in the methodology used and the sites selected for comparison. Several independent reviewers question the validity of assessing the comparative value of the nominated property as a combination of geological features/phenomena, and the so called scale-model. IUCN notes that there are legitimate concerns as to how the nominated property can have Outstanding Universal Value if each of the component elements of the basis for comparison do not meet the test of being globally exceptional.

Some reviews consider that the reframing of the values of this nomination is misleading as it downplays the previously prominent volcanic aspects that are the main identity of this site to a general audience. Despite the advice of the ITM to reduce the emphasis on volcanic features within the comparative analysis, the main focus of the comparative analysis is on monogenetic volcanoes (as indicated by the fact that the nominated property was compared to 54 monogenetic volcanic fields; but only to 19 sites when comparing rifts and just 9 sites for comparing the inversion of reliefs). IUCN considers that it is unquestionable that the nominated property is dominated by volcanic features (the monogenetic field covers 73% of the nominated property's area) and the part of the rift (Limagne Fault) and inversion relief (Montagne de la Serre) occupy smaller areas within the nominated area. For the rift a small part of the overall system has been included in the nominated property, compared to the extensive inclusion of the volcanic field. IUCN thus considers that it is appropriate to still evaluate the justification for Outstanding Universal Value in relation to the diversity and significance of the site's volcanic features and that in this regard, sites in which both currently active and historical (dormant) volcanic features are found in one location should be considered a higher priority for inscription. Yet sites with both monogenetic and polygenetic volcanoes appear to have been discounted in the comparative analysis, for example the Volcanoes of Kamchatka World Heritage site (Russian Federation) which has more than 300 volcanoes in an essentially pristine state in more than 3,300,000ha. In the revised comparative analysis the Payun-Matru Volcanic Field in Argentina is dismissed as not relevant due to its additional polygenetic volcano features, notwithstanding it scored at the

highest diversity level (3 in the IAVCEI list within Annex Table MV 4).

A more fundamental concern for IUCN is that the selection of sites and the criteria for comparison in the nomination's revised comparative analysis appear specifically tailored to the characteristics of the nominated property and so appears to falsely elevate the property's values above other sites and produce questionable results. For example it seems very difficult to reconcile how the 80 volcanoes of the nominated property achieve the same high score in the comparative analysis as the 1,400 volcanoes of Michoacan-Guanajuato in Mexico.

The age parameters applied to the analysis also skew the results as the period range for volcanoes considered comparable starts at 50,000 years, coinciding with the starting point for the nominated property's volcanic activities. Restricting the period in which the features were created seems at odds with the property demonstrating a major stage of Earth's history, as required under criterion (viii). The case made for the nominated property, in fact, seems more an illustration of a geological process than that of a major stage in Earth's history.

Furthermore comments received challenge the claims made on the diversity of the nominated property's monogenetic volcanic features being among the highest worldwide. Notwithstanding the much larger number of sites used in the analysis, numerous other sites continue to be evident as places with equivalent or superior volcanic, rifting and inverted relief values. By way of example on volcanic values a further 16 volcanic sites were identified by desktop reviewers as potential comparative sites but these were not considered. Review comments highlight, for instance, some 13 types of volcanic features found in Icelandic systems which are not present in the nominated property. A further comparison has to be again made with the recent listing of El Pinacate and Gran Desierto de Altar Biosphere Reserve (Mexico). IUCN restates its view that this Mexican site includes the phenomenon of a "monogenetic volcanic field which is more extensive, in greater natural state and better exposed than that in the present nomination". Lastly the ITM report also notes that "other MVFs (monogenetic volcanic fields) do have a wider chemical variety (East African Rift Valley Volcanism), or just more volcanic edifices (just look at the MVFs that formed during back arc rifting processes on the American continents related to Pacific Plates' subductions and associated monogenetic volcanism)."

The IUCN Panel also questioned the conclusions of the comparative analysis for rift valleys and inverted relief. For example the number of qualifiers applied to the methodology leads to a conclusion that the relatively small Limagne Fault (it achieves the highest score together with the Southern Rhine Valley) is globally of greater significance than the vast East African Rift Valley. Even if the East African Rift Valley is split up into different sections (Rwenzori, Tanganyika Lake, Virunga), as the analysis did, each

of these single parts appear to exhibit far superior values and occupy another dimension in terms of scale to the nominated property. Lake Baikal (Russian Federation), inscribed under all four natural World Heritage criteria, is best known as the world's deepest freshwater lake. However, the lake itself is a product of its tectonic values being the deepest continental rift on earth (criterion (viii)). However the methodology used in the complementary comparative analysis concludes that Lake Baikal ranks 13<sup>th</sup> among the 19 sites assessed.

The highest score (20 points out of 20) is given by the State Party's analysis to the nominated property as an inversion relief site although Raton and Springerville in the USA are assessed in the same analysis as sites with "the most remarkable inversion features with respect to valley length and morphology". Similarly the document's conclusion to consider Montagne de la Serre as "the most representative relief inversion in the world" seems premature to declare given that the analysis some pages before notes that "the relief inversions have been little studied". The inverted relief of the Montagne de la Serre is also noted as highly significant; however, the ITM report also indicates that the Limagne Fault and the rift are not nearly as easily visible as other examples around the world, and several reviewers note much more impressive rift valleys and exposures of fault lines globally. Regarding the visibility of the feature, IUCN notes the example of the highly visible and large fault associated with the Swiss Tectonic Arena Sardona (Switzerland) which is much more prominent than the structural features of the nominated property. Whilst the State Party argues that the nominated property illustrates the first steps of continental drift in a mountain rift setting, this represents a narrow interpretation of criterion (viii) and does not reflect the broader aspects of continental drift in other complex settings. The small size of the site, the existence of much more impressive monogenetic fields and rifts worldwide, the overall lack of naturalness of the site and comments by reviewers that the site has gaps in terms of the types of volcanic landforms featured, also call into question claims that the site represents "significant geomorphic or physiographic features" in the sense of the World Heritage Convention.

It is also relevant to note that IUCN is currently updating its thematic study on "World Heritage Volcanoes" in line with the Committee's request. Whilst this study is under revision, the existing study does not identify this property nor specifically the idea of scale models of lifting, rifting and volcanism as a gap to be filled on the World Heritage List.

In IUCN's view the points made above serve to illustrate that, despite the reframing of this nomination's argument in relation to values and the additional comparative analysis, there remain different expert opinions as to the relative merits of the Chaîne des Puys and Limagne Fault. These differing opinions stem from the conceptual reframing proposed in the revised nomination, as well as whether, in absolute terms, the narrow and specialised arguments that have been put forward can provide a basis for Outstanding

Universal Value. IUCN notes that support expressed for the nominated property often relies to a notable degree on the historical importance of the site, as well as the site's high educational value given its high visitation levels and relative compactness (as was also emphasized within the ITM report), or its accessibility. Such aspects do not provide an adequate basis for underpinning a claim for Outstanding Universal Value, and this appears to be a misunderstanding of application of the natural criteria.

To sum up, IUCN considers that the reframing of the property's values represents a more accurate assessment of its value, however, the separate aspects exhibited by the nominated property are not unique and appear to be equalled or better represented in other sites around the world. The assemblage of different aspects in close proximity as a "scale model" does not in itself constitute a compelling basis for the application of criterion (viii).

#### 4. INTEGRITY, PROTECTION AND MANAGEMENT

The complementary dossier provides additional information beyond that which was requested by the Committee in Decision 38 COM 8B.11. The dossier reviews in detail issues of integrity and protection and management which were noted in IUCN's 2014 evaluation. In each case issues raised within the original IUCN evaluation are analysed with key data synthesized as of 2016, actions documented and conclusions drawn in response to these issues.

##### 4.1 Protection

As IUCN noted in its 2014 evaluation, the nominated property is located within Auvergne Volcanoes Regional Nature Park (PNRVA), established in 1977. PNRVA is recorded in the UNEP-WCMC World Database of Protected Areas as an IUCN category V Protected Landscape. The nominated property is subject to various State, Regional, Departmental and communal laws and regulations which govern the environment, urban development, quarries, tourism, natural resource management (forestry, water, soils) and agriculture. A range of regulations, explained in the nomination, are designed to ensure the balance between the needs of populations and the protection of the environment, preservation of areas allocated to agricultural and forestry activities, and the protection of important geological sites. The nominated property is also covered by a range of legal land tenures including privately owned land (individuals or private companies), public land (State, Region, Municipality, or Commune) and commons.

The property's protection regime is complex and multi-layered but not uncommon for a multi-use landscape such as is found across European countries. 70% of the nominated property is designated as "inscribed" or "site classé" under French law. However, several reviewers have challenged the statement that this majority of the nominated property is protected under the strongest level of protection for natural sites in France as at least three other levels are understood to

offer higher levels of protection, namely the “Réserve naturelle”, “Réserve intégrale” and “Parc National”. IUCN considers the “site classé” level of protection as equivalent to IUCN Category III (Natural Monument) which is normally applied to small sites without complex management, which is clearly not the case for the nominated property as the site is large and extremely complex in management. Furthermore key areas of the nominated property, such as the inverted relief of Montagne de la Serre, fall outside the “site classé” designation.

Additional concerns relate to the timeframes of protection. IUCN understands the Puy de Dôme also has the status of “Grand Site de France” listed in 2008 and renewed in 2014. This status covers only a small part of the nominated site and is understood to be an accreditation system rather than a protection mechanism. It is also only given for a limited period of time (6 years), subject to renewal and thus does not provide any protection guarantee in the long term, as required under Articles 7 and 15(a) of the World Heritage Convention. To IUCN’s knowledge, Natural Regional Parks in France are established by regional governments, in agreement with local communities, for a period of 25 years. Thus in this case, the protection regime is not considered to provide fully adequate long term, secure protection suitable for a natural World Heritage site.

Responsibilities for management are divided between different structures. As the 2014 evaluation stated: “There are several hundred individual landowners, most of whom engage with the different levels of government or other stakeholder groups through various associations.” Although the complementary dossier presents an overview of the different protective regulations being in place for tourism, agricultural uses etc., the conclusion of the 2014 evaluation remains valid. These mechanisms assist in managing and minimizing impacts but the system is highly complex and stakeholders will continue to be challenged to understand the different regulations in different areas of one single World Heritage property.

IUCN maintains its previous conclusion that, whilst in broad terms the existing protection regime is relevant to a multi-use landscape, or a cultural landscape, it is not at a level that would enable specific protection consistent with inscription on the World Heritage List.

IUCN considers the protection status does not meet the requirements of the Operational Guidelines for a natural World Heritage site.

## 4.2 Boundaries

IUCN in its original evaluation noted the configuration of the nominated property’s boundaries generated concerns related to complexity and the difficulty of identifying these boundaries in the field. The unusual design of the buffer zone and the fact that several critical viewpoints were located in the buffer zone rather than in the nominated property were also raised.

The boundaries of the nominated property have not changed from those originally nominated, however the State Party has provided additional clarity regarding the rationale for establishing the boundaries. The boundaries are stated to have been determined based on terrain and the morphology of key features and do encompass the key geological attributes centred on the monogenetic volcanic field, the inverted relief and the rifting features (although as noted above the representation of the rift phenomenon seems rather limited, considering the importance attached to this feature in the revised nomination).

The objectives of the buffer zone have been clarified including the fact that they protect key viewing points (11 are shown within the buffer zone). IUCN maintains a view that these areas would normally be included within the nominated area as they are essential to appreciating the values proposed under both criterion (vii) and (viii). IUCN also maintains its view that the site’s boundaries could be made easier to understand and interpret in the field.

The ITM report noted it did not examine the boundaries of the site in any detail, however commented that “the general impression is that the proposed property could be smaller in area and the buffer zone adjusted in order to facilitate better management”. The complementary dossier does not respond to this suggestion.

IUCN considers that the boundaries of the property and buffer zone do not fully meet the requirements of the Operational Guidelines.

## 4.3 Management

The Committee’s referral decision requested more information on the management of the site in relation to the public and private local stakeholders. IUCN, in its 2014 evaluation, noted “the most significant weakness relating to management and enforcement is the lack of enforcement capacity on privately-owned land.”

The State Party has provided additional information with respect to the management plan confirming its objectives relate to 1) preserving the legibility of the landscape (which IUCN interprets as the capacity to convey its story) and integrity of the site; 2) managing tourism use and sustaining local traditional activities; and 3) ensuring that knowledge about the site is increased, shared and transmitted to the public. The management plan places strong emphasis on the engagement of local communities and effective governance of the area. The State Party has also responded to concerns about the short timeframe of the management plan, indicating it covers a 5 year period (2015-2020) linked to a series of contracted actions.

Additional information has updated and clarified staffing and financing arrangements for the nominated property. A total of 66 staff are dedicated to the management of the property, 29 of whom are full time permanent. Over the next five years a total of nearly

EUR 18m will be invested in the property. These levels of support are reassuring and appear adequate to manage a site of this extent and complexity.

The State Party has also reasserted that local communities covering the site have adopted a series of complementary protective measures across the nominated property. Further, that the laws and regulations covering the property apply equally to public and private lands. IUCN accepts that the adoption of a multi-layered system of regulation is necessary and appropriate in a multi-use protected landscape such as the PNRVA. However, IUCN maintains a view that the complex protection regime applying across both public and private lands presents many challenges for a World Heritage site. It is important to recall that the original field mission noted that enforcement on site in privately owned land is weaker than on public land. This information came from stakeholder comments received during the mission.

IUCN maintains a view that the complex management arrangements across different land tenures and levels of protection, whilst appropriate for a multi-use protected landscape, does not fully meet the requirements of the Operational Guidelines.

#### 4.4 Community

IUCN commented positively on the extensive stakeholder consultation and involvement in the preparation of this nomination. The process itself has strengthened what was already a sense of common identity and stewardship among communities in this region. Additional information within the complementary dossier has reinforced the impressive nature of the governance arrangements, participatory and shared approaches to the management of this landscape, whilst noting that concerns from stakeholders were heard by the original evaluation mission.

#### 4.5 Threats

The 2014 evaluation noted a number of threats to the nominated property. The complementary dossier provides further clarifications and details on the management of these threats. Specifically a helpful analysis is provided in tabular form of threats, externalities, impacts on scientific and educational values and management responses. IUCN notes that threats to values in relation to both criterion (vii) and (viii) continue to be of concern in the evaluation.

Updates on the management of tourism in the nominated property explain that tourism is strategically managed from both the national and regional level. Whilst an explicit sustainable tourism management plan is lacking, a series of measures are outlined to monitor visitor numbers (through a system of eco-counters and increased staff presence); manage traffic and parking; harmonize traditional uses with other uses of the landscape; and undertake restoration of areas, tracks etc. damaged through visitor use.

IUCN raised considerable concern regarding quarrying within the nominated property. The original nomination notes a long history of quarrying in this region with 60 active quarries in the last 200 years. Some 17 quarries are mapped in the nomination as now inactive. Additional information confirms that no new quarries will be permitted. The State Party, during the factual error process in 2014, confirmed that three quarries remained active (one on the Puy de Toupe, one on the Puy de Tenusset, and one on the lava flow deriving from the Puy de la Nugère). In the complementary dossier of 2016 it appears that two active quarries remain although it is stated that programmes are in place to phase these out over time. IUCN notes that this represents a fundamental concern, since the World Heritage Committee has a clear policy regarding the incompatibility of extractive industry within a nominated property. The clear commitment that no further quarries will be permitted and that quarrying will be phased out provides some reassurance, however, the fact remains that quarries will remain active within the site for between 2 and 16 years. The complementary dossier further notes that these existing quarries could be expanded with ministerial approval during this phase out period. The operation of these quarries seems particularly inappropriate given they are mining volcanic rock (pouzzolane) in a site nominated under criterion (viii) in part for its volcanic values. The nomination clearly does not meet the integrity and protection and management standards of the Convention, whilst these extractive industries remain active.

The former Lemptegy Quarry is providing an important educational and research opportunity with 100,000 visitors per annum. However it is clearly not possible to argue that such a feature of the property created by quarrying and, which ceased activity only in 2007, is a natural feature.

IUCN stresses that it is not considered appropriate for World Heritage sites to be inscribed with long-term and active commercial extractive industry, and that nominations should be designed to avoid such conflicting land-uses as a fundamental requirement to be considered for World Heritage listing. For instance, Stevns Klint (Denmark), inscribed under (viii) in 2014, is a small 50 ha site which was designed with a boundary to exclude an active quarry. Strict conditions apply to the area of extraction, which cannot be extended beyond the presently specified limits.

The nominated property is a landscape which has been subject to long term human use. The aesthetic natural qualities of the site are considered to be seriously impaired by the inclusion of prominent infrastructure such as telecommunication towers, roads, quarries, and military facilities. Additional information on measures to minimize the impact of landscaping improvements around the antenna on Puy de Dôme are positive but do not overcome the fact that this entirely unnatural feature dominates the landscape and significantly and permanently detracts from its natural aesthetics. Additional information also indicates that, whilst the construction of new powerlines within

the nominated property requires permission, they are not strictly forbidden.

In conclusion IUCN reiterates its assessment of 2014 that the landscape within the nominated property has been subject to a long history of human use and exhibits a number of impacts which are the legacy of that use. "Key visible expressions of this history of land use include degradation and erosion of the cones (Puys) from grazing, agricultural practices, forest growth, footpaths and tracks, recreational use, and quarrying activities (including some active quarrying), as well as complete coverage of the lava flows by dense forest. The property also contains several communication and transport networks including major and minor roads, car parks, a railroad line, electricity pylons, phone lines, and a major and visually intrusive military and public telecommunications centre at the summit of the Puy de Dôme. About 30 communes coincide with the property and approximately 4,000 inhabitants reside within the nominated area and another 25,000 people inhabitant the buffer zones."

IUCN maintains its overall conclusion that the integrity, protection and management of the property do not meet the requirements of the Operational Guidelines.

## 5. ADDITIONAL COMMENTS

### 5.1 Possible Geopark status

IUCN recalls paragraph 52 of the Operational Guidelines which states that "The Convention is not intended to ensure the protection of all properties of great interest, importance or value, but only for a select list of the most outstanding of these from an international viewpoint. It is not to be assumed that a property of national and/or regional importance will automatically be inscribed on the World Heritage List". In this case IUCN maintains its recommendation that the values of the Chaîne des Puys and Limagne Fault would make it a potentially appropriate candidate as a Global Geopark. This view is also expressed in the ITM report which noted that "... the proposal complies completely with the requirements needed for a UNESCO Global Geopark, according with the programme approved by the 38th General Conference of UNESCO (3-18 November 2015)."

UNESCO Global Geoparks are defined as "single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development" with a "bottom-up approach of combining conservation with sustainable development while involving local communities. UNESCO Global Geoparks give international recognition for sites that promote the importance and significance of protecting the Earth's geodiversity through actively engaging with the local communities." As noted above, the nomination has misapplied significant educational and tourism value as evidence to support the application of World Heritage criteria, however IUCN notes that these are important criteria to support Geopark designation.

### 5.2 Referral Process

IUCN would like to stress that the inappropriate use of the referral process in this instance has hampered the evaluation of this very complex site with its specialised geological values. The compressed timeframes of a referral process allow only limited time to review information. In this case, complex information (685 pages of documentation) was submitted by the State Party in January 2016 for both a new evaluation and further consideration by the World Heritage Committee. There is no opportunity for a new evaluation mission, noting that the ITM was conducted with fundamentally different terms of reference to an evaluation mission. As has been previously noted by the Advisory Bodies, the review of such very large amounts of new information in such a compressed timeframe clearly presents a significant problem for the work of the Committee.

The Operational Guidelines already provide for the option of deferral to consider nominations where there is doubt regarding the values and/or substantive matters to be addressed concerning integrity, protection and management, and IUCN considers that the substance of the 38 COM decision should have been undertaken through the deferral, rather than referral, process to enable an appropriate process to be fulfilled.

### 5.3 Scale models and World Heritage Convention

IUCN notes a fundamental concern that scale models, where the emphasis is on educational values and accessibility, is not an appropriate frame of reference for the Convention. IUCN considers that the Convention should aim to list the sites that have the most significant scale and extent of natural values. Identification of the most significant sites in absolute terms, and not their "scale models", is the appropriate basis for defining Outstanding Universal Value.

## 6. APPLICATION OF THE CRITERIA

The **Tectono-Volcanic Ensemble of the Chaîne des Puys and Limagne Fault** has been nominated under criterion (vii) and (viii).

#### Criterion (vii): Superlative natural phenomena and/or natural beauty and aesthetic importance

IUCN maintains its view that the landscape of the nominated property, whilst aesthetically appealing as a cultural landscape, is not scenically outstanding as a natural site, when assessed at a global scale. There are vast numbers of sites worldwide which exhibit more spectacular and natural landscapes. The long history of use of the site, and the variety of land use practices (farming, grazing, forestry, quarrying) result in a landscape that is not primarily natural, but a combination of the interaction of people with nature. IUCN reiterates its previous conclusion that "similar pastoral landscapes to that in the nominated property can be found elsewhere in France and in Western Europe. There are no viewscapes in the nominated

property of spectacular contrast in height, width, depth, slope angle, or complexity, and the mission noted superlatives are generally not used to describe the landscape and its features". The nominated property does not meet the integrity requirements for the application of natural World Heritage criterion (vii), most notably due to its impairment by prominent infrastructure such as telecommunication towers, roads, quarries, and military facilities.

IUCN concludes that the nominated property clearly does not meet this criterion.

#### **Criterion (viii): Earth's history and geological features**

IUCN welcomes the updated comparative analysis provided by the State Party which is extensive and takes on board the adjusted frame of reference for understanding the value of this site. IUCN fully acknowledges that there is strong specialist support from the international geological science community regarding the site's significance in supporting geological inquiry through education and earth science research. However it remains of the view that the debate being held has not been consistent with the long-established concept of Outstanding Universal Value, and that the arguments being put forward have become increasingly narrow and antithetic to the accepted understanding of Outstanding Universal Value.

IUCN notes that in each case the individual attributes of lifting, rifting and volcanism put forward in the nomination are better evidenced in other sites around the world. There are a number of existing and candidate World Heritage properties, Global Geoparks as well as other sites which better illustrate these aspects of Earth's history and significant geomorphic or physiographic features. For example the highly visible and large fault associated with the Swiss Tectonic Arena Sardona (Switzerland); the monogenetic volcanic field which is more extensive, in

greater natural state and better exposed in El Pinacate and Gran Desierto de Altar Biosphere Reserve (Mexico); the greater diversity of volcanic forms found in the much larger Volcanoes of Kamchatka (Russian Federation); the volcanism associated with the East African Rift Valley; and the inverted relief expressed in the Raton and Springerville sites (USA).

IUCN considers the approach of combining a number of features which together offer high interest, educative and scientific value as a scale model is perfectly valid for a Geopark but does not constitute an appropriate basis for Outstanding Universal Value.

IUCN concludes that the nominated property does not meet this criterion.

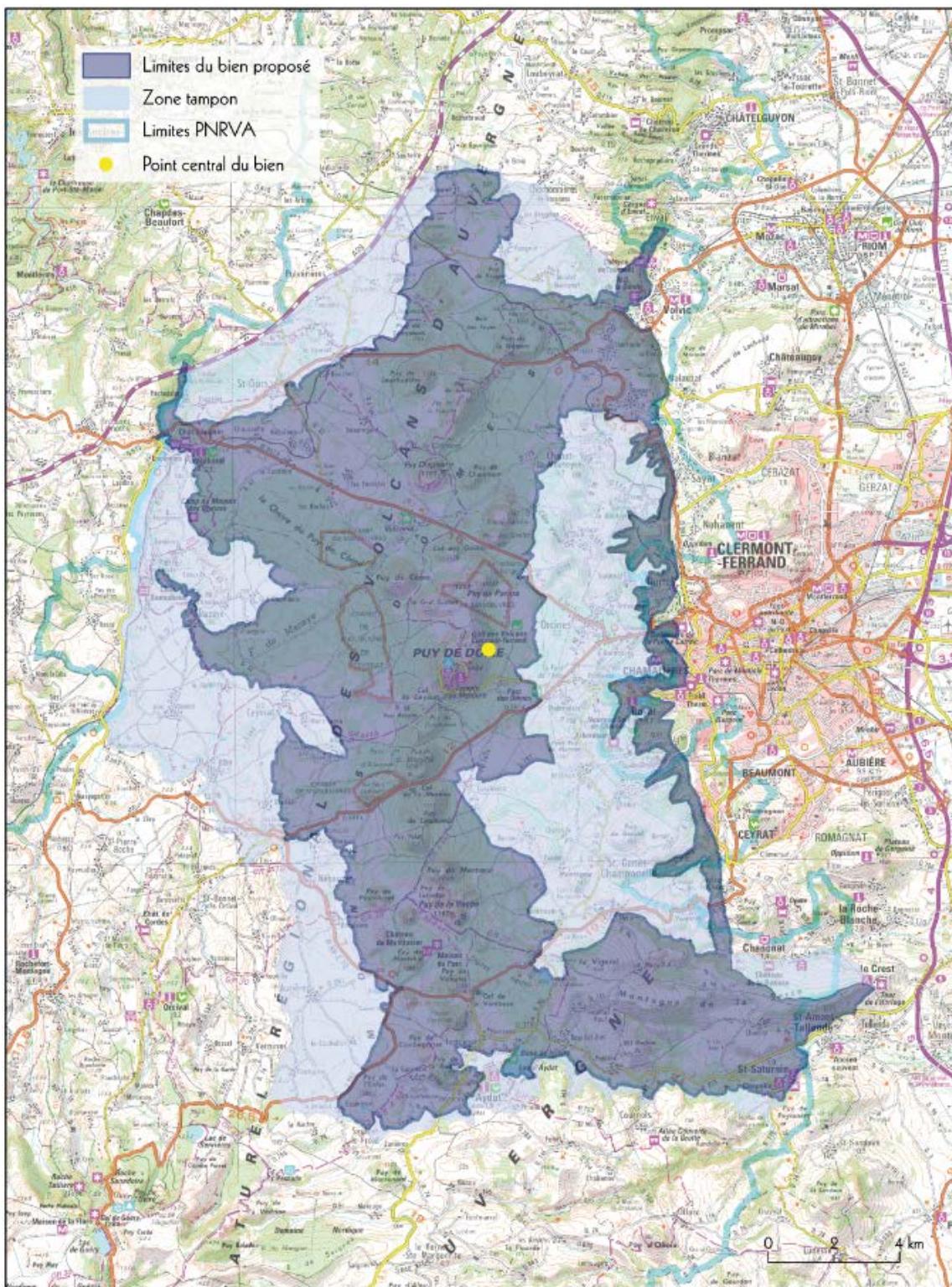
## **7. RECOMMENDATIONS**

IUCN recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC/16/40.COM/8B.ADD and WHC/16/40.COM/INF.8B2.ADD;
2. Recalling Decision 38 COM 8B.11;
3. Decides not to inscribe the **Tectono-volcanic Ensemble of the Chaîne des Puys and Limagne Fault (France)** on the World Heritage List under natural criteria;
4. Expresses its appreciation to the State Party, and the local stakeholders and communities for their ongoing commitment towards the protection and management of the landscape and heritage of this region.

**Map 1:** Nominated property and buffer zone



## **A. NATURAL PROPERTIES**

### **A3. MINOR BOUNDARY MODIFICATIONS OF NATURAL PROPERTIES**



**EUROPE / NORTH AMERICA**

## **GIANT'S CAUSEWAY AND CAUSEWAY COAST**

**UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND**



# WORLD HERITAGE MINOR BOUNDARY MODIFICATION PROPOSAL – IUCN TECHNICAL EVALUATION

## GIANT'S CAUSEWAY AND CAUSEWAY COAST (UNITED KINGDOM) – ID No. 369 Bis

### 1. BACKGROUND INFORMATION

The Giant's Causeway and Causeway Coast was inscribed on the World Heritage List in 1986 under criteria (vii) and (viii). Information on the property is available at the following link:

<http://whc.unesco.org/en/list/369/documents/>

The property was visited in February 2003 by a joint World Heritage Centre/IUCN Reactive Monitoring mission and in February 2013 by an IUCN Advisory mission. The property also has a State of Conservation Report (SOC) being considered under item 7B of the present (40COM) Session of the World Heritage Committee. This evaluation by IUCN of the minor boundary modification does not comment on issues related to the SOC report.

### 2. SUMMARY OF PROPOSED BOUNDARY MODIFICATION

The boundary modification extends the boundary of this coastal site by a small distance (5m) inland to account for the possibility of coastal erosion. This makes a small increase to the property: currently 236.775 ha, and after the addition 239.405 ha. This is an increase of 1.1%.

The modification recognises that as a coastal site, active erosion of sea-cliff faces is part of the natural processes occurring in the property. The modification is made in response to the recommendation (R15) made by the 2013 IUCN advisory mission to address concerns that, should there be significant erosion, the cliff faces, which are key attributes of Outstanding Universal Value (OUV), would no longer lie within the inscribed boundary of the World Heritage property. This matter has also been previously noted by the World Heritage Committee.

The State Party confirms that the selected inland setback distance of 5m is the result of an expert assessment.

### 3. IMPACT ON OUTSTANDING UNIVERSAL VALUE

IUCN considers the minor boundary modification is justified in relation to Outstanding Universal Value as a measure to retain the integrity of the property as the coast erodes naturally. It will ensure key attributes of OUV remain represented in the property. The justification for the modification, and the way in which it is to be taken account of in the management of the property, is clearly explained in the documentation from the State Party, and appropriate. It is welcome that this response has been made to the recommendation made previously by IUCN. The State Party should maintain its monitoring of the natural erosion of the coastline, and continue to consider the relationship of the cliff edge to the property boundary on a regular basis, as part of the management plan.

### 4. OTHER COMMENTS

None.

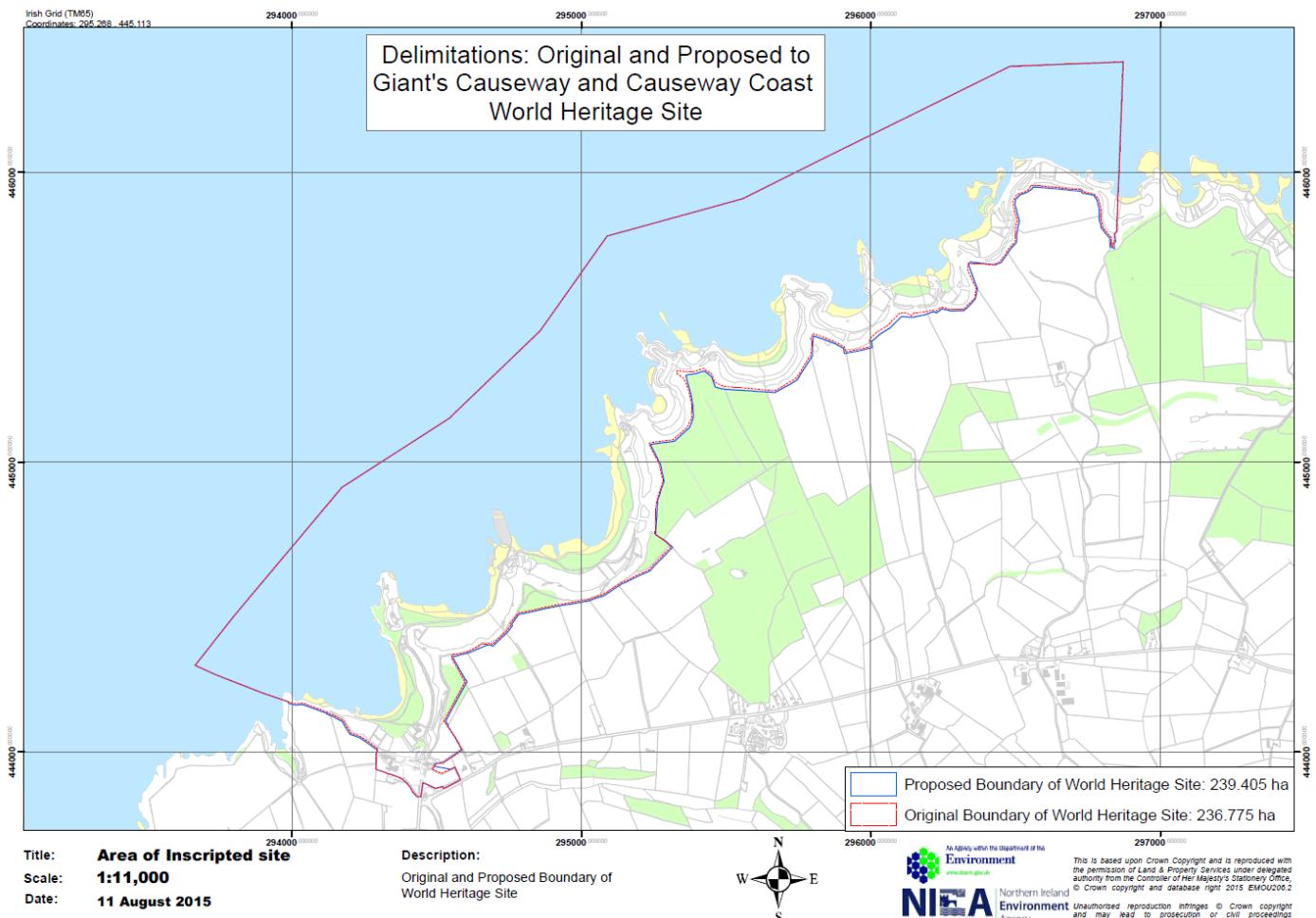
### 5. RECOMMENDATION

IUCN recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Documents and WHC/16/40.COM/8B.ADD and WHC/16/40.COM/INF.8B2.ADD;
2. Recalling Decision 38COM 7B.80;
3. Approves the minor boundary modification of **Giant's Causeway and Causeway Coast (United Kingdom)**.

**Map 1: World Heritage property and proposed minor boundary modification**



## **B. MIXED PROPERTIES**

### **B3. MINOR BOUNDARY MODIFICATIONS OF MIXED PROPERTIES**



**ASIA / PACIFIC**

## **TRANG AN LANDSCAPE COMPLEX**

**VIET NAM**



# WORLD HERITAGE MINOR BOUNDARY MODIFICATION PROPOSAL – IUCN TECHNICAL EVALUATION

## TRANG AN LANDSCAPE COMPLEX (VIET NAM) – ID No. 1438 Bis

### 1. BACKGROUND INFORMATION

In its decision to inscribe Trang An Landscape Complex on the World Heritage List, Decision 38 COM 8B.14, the World Heritage Committee requested the State Party of Viet Nam to modify the boundary of the property to better reflect the areas and attributes of Outstanding Universal Value and ensure an appropriate surrounding buffer zone. This responded to issues raised about the adequacy of the boundaries in the evaluation of the nomination by IUCN and ICOMOS.

### 2. SUMMARY OF PROPOSED BOUNDARY MODIFICATION

The amendments encompass the following (further details are provided in the State Party's documentation in each case):

- a) Extension of the north-western sector of the property to include Dinh Mountain, which is the natural setting for an ancient pagoda;
- b) Extension of the southern boundary of the property to include a substantial mountain area, part of which was reserved earlier for utilization in stone handicraft production;
- c) Small expansion of the north-eastern sector of the property to encompass more of the isolated towers emerging from the surrounding corrosion plain;
- d) Reduction of the property at the north margin to exclude an old rock quarry close to the Hoang Long River;
- e) Reduction of the property around the Tam Coc boat wharf to exclude private homes, hotels and commercial businesses (shops and restaurants etc.), and a hotel site in Bich-Dong.

In addition, but not referred to by the State Party, a number of minor realignments are made on the eastern boundary of the property, which appear to be a way to clarify precisely the boundary, but make little difference to the actual property.

The overall changes increase slightly (c.1%) the area of the property from 6,172 ha to 6,226 ha Area, with a corresponding decrease of the buffer zone from 6,080 ha to 6,026 ha. The outer boundary of the buffer zone is unchanged.

### 3. IMPACT ON OUTSTANDING UNIVERSAL VALUE

The State Party's documentation provides the rationale for the amendments as based on a thorough examination of the full length of the boundary, using the following principles for delimiting the property,

including in relation to the addition of some additional attributes of cultural and natural value, the use of natural features (or if not available human-made features) to ensure clarity of the boundary and the exclusion of some inappropriate developed areas.

The State Party submission confirms that there is no change to the overall administration, management or protection arrangements for the World Heritage property. The entire proposed property is endorsed by the Provincial authorities, and will be managed according to provisions in the approved property management plan.

IUCN notes that the proposed modifications are minor in extent, and do not modify significantly the basis of the inclusion of the property on the World Heritage List. Thus they conform to the main requirements for acceptance through the procedure for minor boundary modification.

In terms of detail, the documentation prepared by the State Party is clear and the rationale for the revisions appears to be sound. The documentation does not explain the amendments to the eastern boundary, but the changes in that instance are of a minor nature. It is understood that the former quarry that is excluded will not be reactivated as a result of its exclusion, and the exclusion is appropriate.

### 4. OTHER COMMENTS

IUCN also notes with appreciation that alongside the work on the boundary, that the State Party has completed the revision of the property management plan, including a consultative workshop which included representatives of the advisory bodies. The IUCN World Heritage Programme also visited the property at the invitation of the site managers in 2015, and was able to witness the significant efforts being made to protect and effectively manage Trang An Landscape Complex.

IUCN notes that in principle these types of changes should be agreed upon before inscription, since the modification of boundaries as a condition of inscription is not consistent with the Operational Guidelines. In future such cases, IUCN considers such amendments should require a referral back of a nomination.

Since the property is inscribed as a mixed site, it will be necessary for IUCN's recommendation to be harmonised with that of ICOMOS, and to be acceptable the boundary modification will need to be appropriate in relation to both the cultural and natural values that are the basis of its inscription on the World Heritage List. Thus IUCN may modify the below

recommendation depending on the view of the ICOMOS Panel, which was not known at the time of finalisation of this report.

## 5. RECOMMENDATION

IUCN recommends that the World Heritage Committee adopts the following draft decision:

The World Heritage Committee,

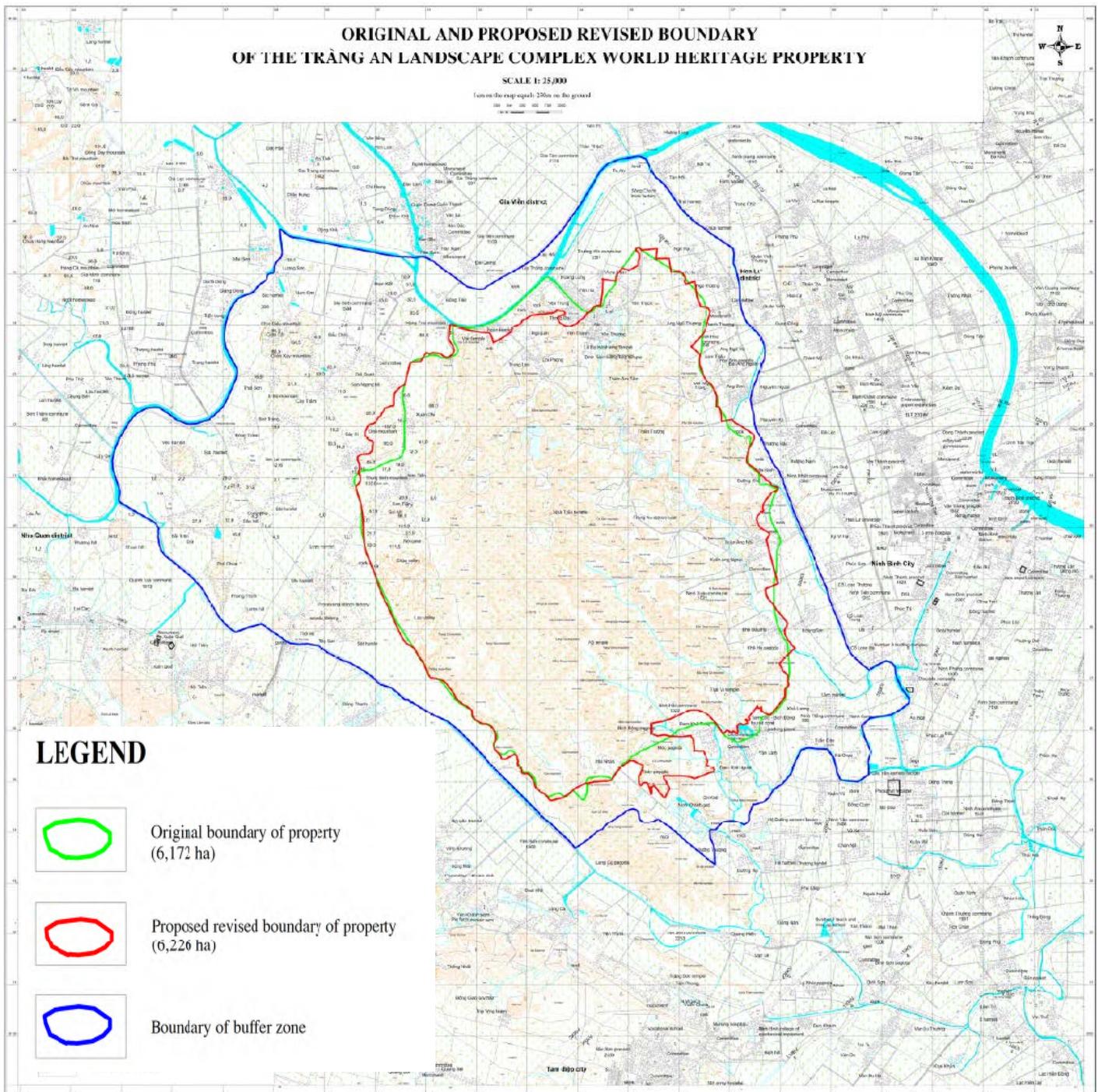
1. Having examined Documents WHC-  
16/40.COM/8B.ADD and WHC-  
16/40.COM/INF.8B2.ADD;

2. Recalling Decision 38 COM 8B.14;

3. Approves the minor boundary modification of **Trang An Landscape Complex (Viet Nam)**;

4. Requests the State Party to ensure that any developments in the property, its buffer zone, or in any adjacent areas that might threaten the Outstanding Universal Value of the property, are subject to early notice to the World Heritage Centre, as per the requirements of the Convention's Operational Guidelines, and in line with the newly adopted Sustainable Development Policy for the World Heritage Convention;

5. Notes with appreciation the progress in enhancing the management of the property, including the further work to complete the management plan, and encourages the State Party, and its property managers to continue this work, in close partnership with the local communities.

**Map 1:** World Heritage property and proposed minor boundary modification



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