

IUCN

**REPORT ON THE MISSION TO JAKARTA, INDONESIA
FROM 24 TO 30 OCTOBER, 2013
REGARDING THE TROPICAL RAINFOREST HERITAGE OF SUMATRA**



Photo © IUCN/David Sheppard

Remco van Merm and Scott Perkin

November 2013

ACKNOWLEDGEMENTS

The mission would like to express its gratitude to the Government of Indonesia for its hospitality, the efficient organization of the mission, and the open and collegial manner in which the discussions took place. The mission is particularly grateful to Mr. Jefry S., Mr. Ahmad Munawir, Ms. Retno Suratri, and Mrs. Marlenni Hasan from the Directorate General of Forest Protection and Nature Conservation, as well as Mr. Dohardo Pakpahan from the Coordinating Ministry of People Welfare, for all the information, assistance and time they provided to the mission throughout its week-long programme. .

Thanks are also due to all the other people who represented their institutions/organizations at the discussions, including the Ministry of Home Affairs, the Ministry of Foreign Affairs, the Ministry of Public Work, the Ministry of Energy and Mineral Resources, the Park Authorities of Gunung Leuser National Park and Kerinci Seblat National Park, UNESCO-Jakarta, the Indonesian National Commission for UNESCO, KEHATI, the Leuser International Foundation, the Bogor Institute for Agriculture (IPB), the Wildlife Conservation Society (WCS), the Indonesian Rhino Foundation (YABI), and the World Wildlife Fund (WWF).

Last but not least, the mission extends its warm thanks to Prof. Arief Rachman for hosting a delicious, traditional lunch at the Indonesian National Commission for UNESCO.

LIST OF ACRONYMS AND ABBREVIATIONS

AGP Foundation	Artha Graha Peduli
ASEAN	Association of South East Asian Nations
BAPPENAS	State Ministry of National Development Planning (Menteri Negara Perencanaan Pembangunan Nasional)
BBSNP	Bukit Barisan Selatan National Park
BPKEL	Leuser Ecosystem Management Body (Badan Pengelolaan Kawasan Ekosistem Leuser)
CITES	Convention on the International Trade in Endangered Species
DSOCR	Desired state of conservation for the removal of the property from the List of World Heritage in Danger
EAP	Emergency Action Plan
EIA	Environmental Impact Assessment
GLNP	Gunung Leuser National Park
GPS	Global Positioning System
HCVF	High Conservation Value Forest
IPB	Bogor Institute of Agriculture (Institut Pertanian Bogor)
IUCN	International Union for the Conservation of Nature and Natural Resources
KEHATI	Indonesian Biodiversity Foundation (Yayasan Keanekaragaman Hayati Indonesia)
KNIU	Indonesian National Commission for UNESCO (Komisi Nasional Indonesia untuk UNESCO)
KSNP	Kerinci Seblat National Park
LIPI	Indonesian Institute of Sciences (Lembaga Ilmu Pengetahuan Indonesia)
Menkokesra	Coordinating Ministry of People Welfare (Menteri Koordinasi Kesejahteraan Rakyat)
MIKE	Monitoring the Illegal Killing of Elephants
MIST	Management Information System
NatCom	National Commission for UNESCO
NGO	Non-governmental organization
NP	National Park
NSA	National Strategic Area
OUV	Outstanding Universal Value
PHKA	Directorate General of Forest Protection and Nature Conservation (Direktorat Jenderal Perlindungan Hutan dan Konservasi Alam)
SEA	Strategic Environmental Assessment
Sumbar	West Sumatra (Sumatera Barat)
Sumsel	South Sumatra (Sumatera Selatan)
Sumut	North Sumatra (Sumatera Utara)
TFCA	Tropical Forest Conservation Action
TRHS	Tropical Rainforest Heritage of Sumatra
TWNC	Tambling Wildlife Nature Conservation
UNESCO	United National Educational, Scientific and Cultural Organization

USD	United States Dollars
WCS	Wildlife Conservation Society
WWF	World Wildlife Fund
YABI	Indonesian Rhino Foundation (Yayasan Badak Indonesia)
YLI	Leuser International Foundation (Yayasan Leuser Internasional)

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF ACRONYMS AND ABBREVIATIONS	iii
EXECUTIVE SUMMARY	1
1. BACKGROUND TO THE MISSION	6
2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE PROPERTY	7
2.1. Protected area legislation.....	7
2.2. Institutional framework	8
2.3. Management structure	8
2.4. Other international designations and programmes.....	8
3. IDENTIFICATION AND ASSESSMENT OF ISSUES/THREATS.....	8
3.1. Encroachment.....	9
3.2. Roads	10
3.3. Poaching/illegal wildlife trade	10
3.4. Mining	10
3.5. Management of the wider landscape	11
3.6. Geothermal energy development.....	12
3.7. Invasive species	12
4. STATE OF CONSERVATION OF THE PROPERTY.....	12
4.1. Desired State of Conservation for the Removal of the property from the List of World Heritage in Danger	13
4.2. Emergency Action Plan.....	20
5. CONCLUSIONS AND RECOMMENDATIONS.....	21
ANNEXES.....	23
Annex I: Terms of Reference.....	24
Annex II: Mission programme	26
Annex III: List and contact details of people met.....	28
Annex IV: Activities of NGOs and other stakeholders in and adjacent to the property.....	30
Annex V: Emergency Action Plan	32

EXECUTIVE SUMMARY

Background

The Tropical Rainforest Heritage of Sumatra (TRHS) consists of the three largest national parks on Sumatra (Gunung Leuser NP (GLNP), Kerinci Seblat NP (KSNP) and Bukit Barisan Selatan NP (BBSNP)). It was inscribed on the World Heritage List in 2004, under criteria (vii), (ix) and (x). In 2011, in response to continuing concerns about a range of threats, the World Heritage Committee decided to inscribe the property on the List of World Heritage in Danger (Decision 35 COM 7B.16).

At the invitation of the State Party, and in accordance with Decision 37 COM 7A.14, a reactive monitoring mission visited Jakarta from 24 to 30 October 2013. The mission was conducted by Scott Perkin from the IUCN Asia Regional Office in Bangkok and Remco van Merm from IUCN Headquarters in Switzerland. The principal objectives of the mission were to finalize the Desired State of Conservation for Removal (DSOCR) from the Danger List, to identify and agree a set of Corrective Measures, and to assist with the finalization of the Emergency Action Plan.

The mission met with representatives from a wide range of government institutions, as well as representatives from UNESCO and a number of prominent NGOs with activities in or adjacent to the property. No site visits were undertaken.

Key Findings

As the mission did not include a field visit, it was unable to assess the current state of conservation of the property. Nevertheless, it was clear that – despite positive action by both the State Party and NGOs - many previously identified threats remain of concern and need to be urgently addressed. The principal threats were noted to be as follows:

- Encroachment: Land-use pressures in many areas surrounding the property are high, including pressure to expand coffee and oil palm plantations. As a result, encroachment remains the most serious immediate and longer-term threat to the property;
- Road Development: Although no new roads have been allowed within the national parks that comprise the property, the demand to build new routes remains high, as does the pressure to upgrade existing tracks. Following the legalization of an emergency relief road in KSNP in 2011, it has become common practice for new road construction projects to be proposed and justified as evacuation routes;
- Mining: The mission confirmed that illegal traditional gold mining is continuing to take place in KSNP. Although government authorities reported that these activities are small-scale and date back to the colonial period, they are clearly incompatible with the property's World Heritage status;

- Pressures on the Wider Ecosystem: Critical wildlife habitats lying outside the three national parks (in particular in the Leuser Ecosystem), remain vulnerable to development pressure. Of particular concern is the new Aceh Spatial Plan; although the mission was unable to review a copy of the plan, it received reports that the plan is likely to propose opening up a significant area of forested land, including in the vicinity of the property, for development purposes;
- Geothermal Energy: A new law defining geothermal energy as an “environmental service” and thereby permitting its development within protected areas is expected to be adopted in 2014. At least one geothermal plant is currently being proposed within the property (in BBSNP).

Desired State of Conservation for the removal of the property from the List of World Heritage in Danger (DSOCR)

Based on extensive discussions with the State Party and a number of non-governmental organizations, the DSOCR was finalized and agreed. The DSOCR is comprised of seven key indicators, as summarized below. It is envisioned that a timeframe of five to ten years will be required to achieve these indicators:

1. Forest Cover: The remaining area of forest in the property is maintained at least at its current level. There is no further loss of primary forest cover and no net loss of secondary forest cover in the property, as assessed against 2011 baseline data

2. Population Trend Data for Key Species of Fauna: The populations of four key species (Sumatran Elephant, Tiger, Rhino and Orangutan) in the property show a sustained positive trend in occupancy data, in addition to the following property-wide population growth rates:

- For Sumatran Elephant: 3% total growth by 2017, measured against the 2007 baseline;
- For Sumatran Rhino: at least 3% annual growth rate to be achieved by 2020 at the latest;
- For Sumatran Tiger: 100% total growth by 2022, measured against the 2010 baseline.

3. Road Development: There are no new road developments or road development proposals within the property. In addition, any changes/adjustments to existing roads (including widening and paving) within the property or in adjacent areas only take place if it is demonstrated that they will not negatively impact on the Outstanding Universal Value of the property.

4. Mining: There are no mining concessions or mining exploration permits overlapping with the property. Mines in adjacent areas where mining could have negative impacts on the property's OUV are subject to appropriate mitigation and other management measures to limit those impacts to a minimum. Illegal small-scale mines inside the property are closed and are being rehabilitated.

5. Boundary Demarcation: The entire boundary of the property is adequately and accurately demarcated on the ground, at all three component national parks.

6. Law Enforcement: The property's law enforcement agencies (park authorities) are spending at least 50% of each month on patrol, and implementing strategic patrol plans that respond to identified priorities. Patrols are managed using MIST/SMART and MIST/SMART data are provided regularly to all stakeholders. The number of prosecutions and resulting convictions as a proportion of arrests is significantly increased in relation to the 2013 baseline.

7. Management of the Wider Landscape: The National Strategic Area for the Gunung Leuser area regulates development and sustains critical habitat for key species (particularly tiger, rhino, elephant and orangutan) in the Leuser Ecosystem. Wildlife corridors connecting these areas with each other and the property are also maintained.

Corrective Measures

The overall conclusion of the mission is that the property remains under threat, but that positive steps are being taken by the State Party and a range of other stakeholders. The DSCOR and the Emergency Action Plan are ambitious but feasible within the context of a five to ten year timeframe.

In discussion with the State Party, a set of Corrective Measures was agreed, addressing the most urgent and important issues. The mission recommends that the Committee adopt these Corrective Measures, as listed below:

1. Significantly enhance law enforcement capacity by developing and implementing a strategic plan for the control of illegal activities, as a collaborative effort involving national park authorities, the Natural Resources Conservation Agency, NGOs, local police forces, local government and the prosecutor's office. The strategic plan should include measures to:
 - a. provide law enforcement agencies with adequate resources to expand their activities;
 - b. ensure that reports of illegal activities are quickly and efficiently responded to, and that transgressors are tried on the basis of conservation law (in addition to criminal law);
 - c. identify and prosecute syndicates, networks and businesses involved in illegal activities, in cooperation with the relevant authorities for the eradication of forest crime and corruption;
2. Strengthen property-wide monitoring of key species, including Sumatran Elephant, Tiger, Rhino and Orangutan, by:
 - a. enhancing collaboration among Government, NGOs and universities;
 - b. agreeing on a common methodological framework for monitoring each species;
 - c. expanding monitoring efforts to address geographical gaps in monitoring activities;
 - d. synchronizing data analyses for all key species to facilitate progress reporting;
3. Strengthen species recovery efforts by implementing habitat improvement and ecosystem restoration programmes, as required, including the control of invasive species;
4. Maintain the policy that prohibits the construction of new roads in national parks, and conduct a Strategic Environmental Assessment of the road network in the entire Bukit Barisan Mountain Range, in order to identify transport options and technologies for the region that do not adversely impact on the property's Outstanding Universal Value;

5. Ensure that rigorous Environmental Impact Assessments are carried out for all proposed developments within the property (eg. road improvement projects) and in its vicinity (eg. mining projects), to ensure that these do not have a negative impact on the Outstanding Universal Value of the property;
6. Close and rehabilitate all mines within the property, investigate the existence of any mining concessions and exploration permits that overlap with the property, and revoke any overlapping concessions and/or permits that are identified;
7. In consultation with relevant stakeholders, including local communities, clarify in law the boundaries of each component national park of the property, and complete the demarcation of these boundaries on the ground;
8. Ensure that all provinces, districts and sub-districts that overlap with the property recognize its World Heritage status and avoid the designation of development zones within its boundaries;
9. Ensure that the World Heritage Working Group under the Coordinating Ministry of People Welfare is taking an active role in promoting strong coordination between different ministries in the protection and management of the property;
10. Ensure that the National Strategic Areas process establishes buffer zones around each national park in the property and identifies and protects critical wildlife habitats outside the property.

In addition to these corrective measures, the mission makes the following recommendations:

Recommendation 1 - Geothermal Development: Ensure that any development of geothermal energy within the property remains prohibited by law, and provide ample notice to UNESCO and IUCN of any plans to develop geothermal energy in areas adjacent to the property. All development proposals should be the subject of rigorous Environmental Impact Assessments (EIAs) to determine the likely effects on the property's Outstanding Universal Value; EIAs should be conducted in accordance with the World Heritage Advice Note on Environmental Assessment prepared by IUCN¹.

Recommendation 2 - Boundary Modification: Investigate the desirability/feasibility of modifying the boundary of the property in order to better represent its Outstanding Universal Value (OUV). It is important to emphasize that any possible future boundary modifications should be carried out on the basis of OUV and supported by strong scientific evidence. Boundary modifications would also need to be proposed to the World Heritage Committee in line with the appropriate procedures as set out in the *Operational Guidelines*.

Recommendation 3 - Aceh Spatial Plan: Rigorously ensure that the Aceh Spatial Plan explicitly recognizes the boundaries of the property and that no land is allocated for development purposes either within or immediately adjacent to the property. The new spatial

¹ http://iucn.org/about/work/programmes/wcpa_worldheritage/resources/policies/

plan should also make adequate provisions for the identification and conservation of critical wildlife habitats that lie outside the property.

1. BACKGROUND TO THE MISSION

The Tropical Rainforest Heritage of Sumatra (TRHS) consists of the three largest national parks on Sumatra (Gunung Leuser NP, Kerinci Seblat NP, and Bukit Barisan Selatan NP), all located in the Bukit Barisan Mountain Range which stretches along the western coast of Sumatra. It was inscribed on the World Heritage List in 2004, under criteria (vii), (ix) and (x). At the time, IUCN had recommended that the World Heritage Committee (the Committee) inscribe the property on the List of World Heritage in Danger simultaneously with its inscription on the World Heritage List²; however, this recommendation was not adopted by the Committee.

In its evaluation of the property, IUCN had noted that “some of the best evidence of significant on-going ecological and biological processes is contained in part of the Leuser Ecosystem outside the [property]”. In particular, it was noted that much of the critically important habitat for orangutan is located outside the property in the surrounding Leuser Ecosystem. Areas outside Gunung Leuser National Park (GLNP) of high biodiversity importance were noted to be the Singkil Barat Wildlife Reserve, the Langsa lowlands and foothills, the Aceh Highlands and the Tapaktuan lowlands. In addition, it was noted that much of the Sumatran Elephant migration in the region takes place outside GLNP.

Since the property’s inscription on the World Heritage List, its state of conservation has been examined by the Committee in every subsequent year (2005 – 2013). On numerous occasions (2006, 2009, 2010), IUCN and the World Heritage Centre recommended that the property be inscribed on the List of World Heritage in Danger, but the Committee did not adopt that decision. In 2010, the Committee did adopt a set of Corrective Measures (Decision **34 COM 7B.14**), but as Corrective Measures only apply to Danger Listed sites, these have not been used as a consistent reporting framework in subsequent years. Joint World Heritage Centre / IUCN reactive monitoring missions have visited the property in 2006, 2007, 2009, and 2011.

The 2011 mission revealed that the main threats to the property, i.e. encroachment and road construction (proposals), remained of concern. However, it also noted that the State Party was taking measures to address these threats. For that reason, it did not recommend inscribing the property on the List of World Heritage in Danger. Nevertheless, based on the 2011 mission’s confirmation of these ongoing threats and further information received by IUCN at the time, IUCN and the World Heritage Centre reiterated their recommendation regarding Danger Listing the property, and in Decision **35 COM 7B.16**, the Committee decided to inscribe the property on the List of World Heritage in Danger

When the Committee decides to inscribe a property on the List of World Heritage in Danger, it is standard practice that it also adopt a Desired State of Conservation for its removal (DSOCR) from the Danger List, as well as a set of Corrective Measures. These should be developed by the State Party, in consultation with IUCN and the World Heritage Centre, and are usually prepared during a reactive monitoring mission. However, as the 2011 mission to TRHS did not recommend Danger Listing, it also did not develop a DSCOR and Corrective Measures. Therefore, in Decision **35 COM 7B.16**, the Committee requested the State Party to develop the

² http://whc.unesco.org/archive/advisory_body_evaluation/1167.pdf

DSOCR in consultation with IUCN and the World Heritage Centre, for examination by the Committee at its 36th session (Saint Petersburg, 2012). It also noted that a proposed set of Corrective Measures was being prepared, taking into account the Corrective Measures that had been adopted by the Committee in 2010. It further requested the State Party to develop an action plan that would enable the removal of the property from the List of World Heritage in Danger.

By the 36th session of the Committee, no DSOCR and Corrective Measures had yet been developed, and in Decision **36 COM 7A.13**, the Committee again requested that the State Party develop these in consultation with the World Heritage Centre and IUCN. Upon the request of the State Party, IUCN developed an initial draft DSOCR, which was presented to the State Party during a national workshop in Jakarta (19-20 November 2012) involving different stakeholders from national and local government, as well as NGOs and Gadjah Mada University. The action plan that was requested by the Committee in Decision **35 COM 7B.16** was also presented at this workshop as an update to the 2007 Emergency Action Plan. The workshop concluded that there was a need to further adjust the action plan to ensure its compatibility with the DSOCR.

The State Party provided feedback on the draft DSOCR on 1 February 2013 as part of its report to the Committee on the state of conservation of the property. However, no final proposals for the DSOCR, nor the Corrective Measures and Emergency Action Plan, were available for examination by the Committee at its 37th session (Phnom Penh, 2013). Therefore, at its 37th session, the Committee requested the State Party to invite a reactive monitoring mission to be undertaken by IUCN (Decision **37 COM 7A.14**), with the objective of finalizing the DSOCR, the Corrective Measures and the Emergency Action Plan through consultation with the relevant institutions, including the World Heritage Centre.

The mission took place from 24 to 30 October 2013 in Jakarta, and was conducted by Scott Perkin from the IUCN Asia Regional Office in Bangkok and Remco van Merm from IUCN Headquarters in Switzerland.

2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE PROPERTY

2.1. Protected area legislation

A number of laws are relevant for protected area legislation in Indonesia, namely Law No. 5 of 1990 on the Conservation of Natural Resources and Ecosystems, Law No. 32 of 2009 on Protection and Management of the Environment, and Law No. 41 of 1999 on Forestry, including its amendment as notified in Law No. 19 of 2004. Also relevant are Decision No. 35 of 2012 on the Rights of Customary Peoples, which provides regulations for dealing with land claims, and Law No. 18 of 2013 on the Prevention and Eradication of Forest Destruction, which holds government officials responsible for encroachment and other forest crimes if they have not taken action against such illegal activities despite being aware of them.

It is pertinent to note here that Decision No. 35 on the Rights of Customary Peoples could lead to the return of lands to indigenous peoples, with important implications for many protected areas in Indonesia, including the national parks that comprise TRHS. However, the Ministry of Forestry does permit the establishment of Traditional Use Zones where indigenous peoples can live inside national parks and continue to use natural resources; these zones could potentially provide a way of recognizing customary rights without negatively impacting the integrity of protected areas.

2.2. Institutional framework

The property consists of three national parks, which are all public lands. The only exception is the Tambling Wildlife Nature Conservation (TWNC), a 45,000 ha conservation forest nested within the southern part of BBSNP and privately owned by Artha Graha Peduli (AGP Foundation).

The management authority for all three national parks is the Directorate General of Forest Protection and Nature Conservation (PHKA) within the Ministry of Forestry.

2.3. Management structure

The management structure of national parks in Indonesia is referred to as “Resort-Based Management”. Each national park consists of several Divisions, which are further subdivided into two Sections. Each Section is further divided into up to eight Resorts with two to three rangers. The Resort-based approach to management is considered by the State Party to be an effective means for ensuring patrol coverage in priority areas and responding strategically to management needs.

To complement the Resort-Based Management approach, the State Party operates a “Forest Ranger Partnership” scheme, which recruits and pays local people to work with – and as – rangers. The number of partners is approximately the same as the number of rangers. The State Party also operates a similar but separate scheme to mobilize local people to fight forest fires (the “Forest Fire Partnership”).

2.4. Other international designations and programmes

KSNP and GLNP are both designated as ASEAN Heritage Parks. GLNP is also a UNESCO Man and Biosphere Reserve; however, the biosphere reserve covers a larger area (1,094,692 ha) than the GLNP component of the property (862,975 ha).

3. IDENTIFICATION AND ASSESSMENT OF ISSUES/THREATS

Although positive action is being taken by both the State Party and a range of national and international non-governmental organizations, discussions revealed that the property continues to be confronted by a wide array of threats. The most important threats identified by the mission were as follows:

3.1. Encroachment

Encroachment remains the most serious threat to the property, both in the immediate future and in the longer-term. Land-use pressures in the areas surrounding the three national parks are often high, including pressure to expand coffee and oil palm plantations. The boundaries of the national parks are very long, which makes effective demarcation and patrolling of the border areas difficult. The situation is exacerbated by the fact that the demarcation of the property's boundary on the ground has not yet been completed; in some areas where demarcation has taken place, boundary markers have been deliberately removed or destroyed by adjacent communities.

All three national parks have experienced serious instances of encroachment. The total area of encroachment in GLNP, KSNP and BBSNP is estimated at 112,100 ha, 200,000 ha, and 61,000 ha, respectively. In GLNP, large areas were lost to refugees who were resettled in the area, and subsequently, to other migrants who took advantage of the land clearances. The latter now make up the vast majority of illegal occupants (up to 90%), and are more difficult to remove as they are not eligible for financial compensation.

In BBSNP, a large area (approximately 60,000 ha) in the north of the park has effectively been lost to coffee plantations and is no longer of conservation value; NGOs reported to the mission that elephant occupancy in this section of the national park has decreased since 2002. This has prompted calls for a boundary modification, which would exclude the area now under coffee but would add a new area of production forest to the west in compensation. The mission explained to both the State Party and NGOs that any modification of boundaries should be communicated to the World Heritage Committee in line with the appropriate procedures as set out in the *Operational Guidelines*.

The situation in the Sipurak Hook in KSNP is also problematic; some 6,000 people were believed to be living in this area prior to its inclusion in the property.

Efforts by the State Party to address encroachment have included the clearance of oil palm plantations in some areas as well as the negotiation of relocation agreements; however, these appear to have had only limited success. In 2008, a relocation agreement was achieved with encroachers in GLNP, who were to receive 35 million Rupiah (appr. 3,500 USD) per household in compensation. However, as a result of ambiguities in the status of the land that was allocated to these households, the relocation ultimately did not take place. Now, the compensation is too low to be attractive to encroachers, who often have an annual income in excess of 10 million Rupiah. In another instance, 70 families were successfully moved out of GLNP to lands in south Sumatra, only to return to GLNP three years later.

The issue of encroachment in national parks and other protected areas has now been identified as a national priority. The mission was informed that a recent government audit (2012) had highlighted that insufficient attention was being accorded to boundary demarcation, and that the Ministry had subsequently been instructed to prioritize this issue. An inter-ministerial Anti-Encroachment Task Force has also been established at Vice-Presidential level. The mission

was also informed by the State Party that a Presidential Decree on encroachment may be issued.

3.2. Roads

Although no new roads are allowed within the national parks that comprise the property, the pressure to build new routes remains high, as does the pressure to upgrade existing tracks. Roads are viewed as a prerequisite for development, not only because they connect communities to services but also because they enable products such as coffee to be exported from the area and provide evacuation routes in times of disaster. Following the legalization of an emergency relief road in KSNP in 2011, it has become common practice for new road construction projects to be proposed and justified as evacuation routes. The mission was also informed that some NGO staff who have opposed road construction have been intimidated. For more information on the issue of road development in the property, please refer to the rationale for Indicator 3 of the DSOCR outlined in Chapter 4.

The mission was informed that there has been agreement in place for several years now between the Directorate-General of Public Works and the Directorate-General of Forest Protection and Nature Conservation to create wildlife tunnels and overpasses in BBSNP. A number of these structures have already been designed, but none have yet been constructed.

In a particularly welcome development, the State Party is currently making preparations to conduct a Strategic Environmental Assessment (SEA) of road development in Sumatra in 2014, as requested by the Committee in Decision **35 COM 7B.16**, with 600,000 USD in funding from the UNESCO Trust Fund. The involvement of an IUCN expert/consultant will be requested.

3.3. Poaching/illegal wildlife trade

Previous mission reports and information provided to IUCN prior to the 36th session of the World Heritage Committee held in St Petersburg have identified poaching and the illegal wildlife trade as serious threats. However, during the current mission, the State Party questioned the accuracy of the data provided to the 36th session of the Committee and called for this to be validated. The State Party also emphasized that the wildlife trade is strictly controlled through a system of quotas and permits.

In contrast, NGO representatives informed the mission that the illegal wildlife trade remains an important concern and that members of both the army and the police are reported to be involved. For example, a large seizure of several hundred pangolins had taken place in Lampung, South Sumatra, shortly before the mission, although the origin of the animals was unclear. Similarly, some ten tigers were reported to have been killed in 2012.

3.4. Mining

Under current law, no mining is permitted within national parks. Although there does not appear to be any commercial mining within the property, the mission confirmed that illegal traditional gold mining is continuing to take place in KSNP. Government authorities reported that these

activities are small-scale and date back to the colonial period. However, they are clearly incompatible with the property's World Heritage status. This situation should be addressed by removing all mining from the property and rehabilitating the affected areas.

The mission was informed that there are no longer any commercial mining concessions overlapping with the property. However, this should be confirmed through a detailed review of all mining permits for the area.

3.5. Management of the wider landscape

The mission was informed that the Leuser Ecosystem Management Body (BPKEL-Badan Pengelolaan Kawasan Ekosistem Leuser) had collapsed because of internal governance issues and external pressures; as a result, there is no longer a single, coordinating body for the wider Leuser Ecosystem. The mission was also informed that local government authorities in the areas surrounding the property continue to view protected areas as barriers to development and are largely unaware of the property's World Heritage status. Critical wildlife habitats lying outside the existing protected area system, in particular in the Leuser Ecosystem, are also vulnerable to development pressure.

The Aceh Spatial Plan (currently under preparation) will have important implications both for the Property and the wider landscape. The mission was informed that the plan has provisionally allocated areas within wildlife reserves and the national park to agricultural development. The mission was also informed that the plan could open some 200,000 ha of forest land outside the national park to development. (Some advocacy groups and external websites have cited a figure of one million hectares, but the mission was told that this figure had been exaggerated.) A public consultation on the spatial plan was scheduled to take place in Aceh in early November 2013. It will be important for the future management of TRHS and the wider landscape to develop a detailed understanding of where agricultural development will take place and the potential impacts on critical wildlife habitat.

On the positive side, a mechanism known as Special Allocation Funding has been established under the Ministry of Forestry, amounting to 500 billion rupiah (approximately 50 million USD). This funding is allocated to local governments at regency level (i.e. approximately 300,000 USD per regency) to help support development activities, and is specifically targeted at communities in forest areas. It is allocated on the basis of a suite of criteria and conditions, and seeks to enhance forest protection and protected area management.

In another positive development, a new spatial planning process has been initiated in Indonesia in recent years, leading to the designation of National Strategic Areas (NSAs) around all cultural and natural World Heritage Sites. NSAs are intended to promote an integrated approach to development through the establishment of land-use zones (including core zones, transition zones, utilization zones and ecological corridors) and the promulgation of a corresponding suite of regulations and penalties, defined by Presidential Decree, to govern land-use activities. The NSA process should provide an opportunity to integrate TRHS within the wider landscape, to ensure that ecological connectivity between the property and outlying wildlife habitats is

maintained, and to promote land management regimes outside the property that are sensitive to the needs of key species.

3.6. Geothermal energy development

In response to Indonesia's current energy crisis, the development of new sources of energy has been identified as a national priority. Particular attention is being accorded to the exploration and exploitation of geothermal energy.

A high percentage of the country's potential geothermal sites lie within conservation areas, including TRHS. Although geothermal developments are presently defined as "mining" under the existing law and are not, therefore, permitted within national parks, a new law defining geothermal energy as an "environmental service" and thereby permitting its development within protected areas is expected to be adopted in 2014. This could have serious implications for the property, which will need to be carefully assessed as the details of any proposed developments become available.

At the present time, the mission was informed that there are currently no proposals for the construction of geothermal plants within the property, except for one proposal in BBSNP; this would be located in the heavily encroached Suwuh / Sekincau area. No details were available about this project.

The mission notes that any development of geothermal energy within the property is likely to be incompatible with the conservation of its OUV. It also notes that the Committee, in at least one other case (Pitons, cirques and remparts of Reunion Island (France)), has decided that the development of geothermal energy is not compatible with the conservation of the OUV of the concerned property (Decisions **34 COM 8B.4** and **37 COM 7B.20**).

3.7. Invasive species

The mission was informed that the vine *Merremia peltata* is a conservation concern in BBSNP, where it is reported to be smothering sections of the forest, particularly in and around the Tambling Wildlife Nature Conservation concession. Although *M. peltata* is native to Indonesia, it can become invasive under certain conditions. The scale of this problem, and the severity of the threat it poses to the property's OUV, requires further investigation.

4. STATE OF CONSERVATION OF THE PROPERTY

As the mission did not include a field visit, it was unable to assess the current state of conservation of the property. However, based on the numerous discussions held with various stakeholders, the mission did not identify any major further negative developments that could have significantly affected the property's Outstanding Universal Value. Nevertheless, it is clear that the previously identified threats of encroachment, road development proposals, boundary disputes, and mining remain of concern and need to be urgently addressed.

Based on extensive discussions with the State Party, involving various ministries, the National Commission (NatCom) of Indonesia for UNESCO, the UNESCO office in Jakarta, and the

Indonesian Biodiversity Foundation (KEHATI), the mission further developed the draft DSOCR (Table 4.1), as described below. The mission was also able to discuss the working draft DSOCR with a number of NGOs, including the Leuser International Foundation (YLI), the Wildlife Conservation Society (WCS), the Indonesian Rhino Foundation (YABI), and the World Wildlife Fund (WWF). In addition, the mission developed, in consultation with the State Party, a set of Corrective Measures (see section 5 “Conclusions and Recommendations”) and provided support to the State Party to ensure that the Emergency Action Plan is compatible with and complementary to the DSOCR and Corrective Measures.

4.1. Desired State of Conservation for the Removal of the property from the List of World Heritage in Danger

Proposed timeframe for implementation

A timeframe of **5 to 10 years** is proposed for achieving the DSOCR, starting upon its adoption by the Committee, which is anticipated at its 38th session in June 2014 (Doha, Qatar). This timeframe is needed in order to record increases in population sizes of slow-breeding species, as well as other fundamental positive changes in each of the three components of the property, as outlined in the indicators and their rationale below.

Table 4.1: Desired state of conservation for the removal (DSOCR) of the Tropical Rainforest Heritage of Sumatra (Indonesia) from the List of World Heritage in Danger

		INDICATOR FOR REMOVAL OF THE PROPERTY FROM THE LIST IN DANGER	METHOD OF VERIFICATION																				
ATTRIBUTES	1.	<p>Forest Cover:</p> <p>The remaining area of forest in the property is maintained at least at its current level. There is no further loss of primary forest cover and no net loss of secondary forest cover in the property, as assessed against 2011 baseline data, summarized in the table below:</p> <table border="1" data-bbox="354 1495 935 1896"> <thead> <tr> <th></th> <th>GLNP</th> <th>KSNP</th> <th>BBSNP</th> </tr> </thead> <tbody> <tr> <td>Primary forest</td> <td>694916 ha</td> <td>896770 ha</td> <td>147077 ha</td> </tr> <tr> <td>Secondary forest</td> <td>90763 ha</td> <td>356593 ha</td> <td>121590 ha</td> </tr> <tr> <td>Secondary swamp forest</td> <td>11662 ha</td> <td>0 ha</td> <td>0 ha</td> </tr> <tr> <td>Total</td> <td>797341 ha</td> <td>1253363 ha</td> <td>268667 ha</td> </tr> </tbody> </table>		GLNP	KSNP	BBSNP	Primary forest	694916 ha	896770 ha	147077 ha	Secondary forest	90763 ha	356593 ha	121590 ha	Secondary swamp forest	11662 ha	0 ha	0 ha	Total	797341 ha	1253363 ha	268667 ha	<p>Periodical analyses (2-3 years) of satellite imagery by UNESCO in coordination with the Ministry of Forestry (including the Directorate General of Forestry Planning), including monitoring of the boundaries of agricultural areas. Ground truthing to be done by National Park authorities.</p>
		GLNP	KSNP	BBSNP																			
	Primary forest	694916 ha	896770 ha	147077 ha																			
	Secondary forest	90763 ha	356593 ha	121590 ha																			
	Secondary swamp forest	11662 ha	0 ha	0 ha																			
Total	797341 ha	1253363 ha	268667 ha																				

	2.	<p>Population Trend Data for Key Species of Fauna:</p> <p>The populations of four key species (Sumatran Elephant, Tiger, Rhino and Orangutan) in the property show a sustained positive trend in occupancy data, in addition to the following property-wide population growth rates:</p> <ul style="list-style-type: none"> • For Sumatran Elephant: 3% total growth by 2017, measured against the 2007 baseline; • For Sumatran Rhino: at least 3% annual growth rate to be achieved by 2020 at the latest; • For Sumatran Tiger: 100% total growth by 2022, measured against the 2010 baseline. 	<p>Systematic surveys to establish baseline data for all key species, in all national parks where they occur³.</p> <p>Systematic surveys of key wildlife species (Tiger, Sumatran Rhino, Sumatran Elephant, and Sumatran Orangutan) using peer-reviewed methods⁴ conducted every 2-4 years</p>
INTEGRITY	3.	<p>Road Development:</p> <p>There are no new road developments or road development proposals within the property.</p> <p>In addition, any changes/adjustments to existing roads (including widening and paving) within the property or in adjacent areas only take place if it is demonstrated that they will not negatively impact on the Outstanding Universal Value of the property.</p>	<p>Monitoring of the existing road network and proposals for new roads within and around the property including through remote sensing and other appropriate methods.</p> <p>Environmental Impact Assessments of road improvement projects.</p>
	4.	<p>Mining:</p> <p>There are no mining concessions or mining</p>	<p>Existing mining concessions are revoked where they overlap with</p>

³ Already in place for elephants and tigers (occupancy & abundance) in BBSNP; partly in place for elephants in GLNP and KSNP (occupancy).

⁴ Camera traps and capture-recapture methods for Sumatran Tiger; fecal DNA and capture-recapture methods for Sumatran Elephant and Sumatran Rhino; standard occupancy surveys and permanent monitoring plots for all 3 species plus Sumatran Orangutan.

		<p>exploration permits overlapping with the property.</p> <p>Mines in adjacent areas where mining could have negative impacts on the property's OUV are subject to appropriate mitigation and other management measures to limit those impacts to a minimum.</p> <p>Illegal small-scale mines inside the property are closed and are being rehabilitated.</p>	<p>the property.</p> <p>No new mining concessions or exploration permits overlapping with the property are issued.</p> <p>Environmental Impact Assessments of new mining proposals adjacent to the property.</p> <p>Monitoring and enforcement of implementation of mitigation measures at mines in adjacent areas where mining could have negative impacts on the property's OUV.</p>
	5.	<p>Boundary Demarcation:</p> <p>The entire boundary of the property is adequately and accurately demarcated on the ground, at all three component national parks.</p>	<p>Monitoring of property boundaries demarcation to ensure boundary demarcation is not removed.</p>
PROTECTION & MANAGEMENT	6.	<p>Law Enforcement:</p> <p>The property's law enforcement agencies (park authorities) are spending at least 50% of each month on patrol, and implementing strategic patrol plans that respond to identified priorities. Patrols are managed using MIST/SMART and MIST/SMART data are provided regularly to all stakeholders.</p> <p>The number of prosecutions and resulting convictions as a proportion of arrests is significantly increased in relation to the 2013 baseline.</p>	<p>MIST/SMART data and data on elephant carcasses and law enforcement effort through CITES/MIKE</p> <p>Strategic Patrolling Plans developed for each resort</p> <p>Response of park authorities to reports of fires, human-wildlife conflict, illegal activities, etc. (i.e. do they respond and how quickly)</p> <p>Reports of regular patrols conducted by the Natural Resources Conservation Agency as well as the national park authorities</p> <p>Analysis of court records</p>

	7.	<p>Management of the Wider Landscape:</p> <p>The National Strategic Area for the Gunung Leuser area regulates development and sustains critical habitat for key species (particularly tiger, rhino, elephant and orangutan) in the Leuser Ecosystem. Wildlife corridors connecting these areas with each other and the property are also maintained.</p>	<p>Periodical analyses (2-3 years) of satellite images of the entire Leuser Ecosystem, including monitoring of the boundaries of agricultural zones.</p> <p>Presidential Decree establishing the National Strategic Area for Gunung Leuser.</p>
--	----	---	---

Indicator 1: Forest Cover

Encroachment is one of the main threats to the property, affecting attributes of its Outstanding Universal Value under all three criteria for which it was inscribed (vii, ix, x). Relict lowland rainforests in the property are crucial for the conservation of the plant and animal biodiversity of the rapidly disappearing lowland forests of South East Asia. The montane forests, though less threatened, are vital for conservation of the distinctive montane vegetation of the property. The analysis of forest cover should make a distinction between the forest types represented in the property, in line with the categories already used by the UNESCO Jakarta office in its ongoing analyses of land cover in the property. To ensure compatibility with existing management systems, the analysis should be overlaid with the zonation maps of the component national parks of the property.

The indicator should show for all components of the property that the area of forest for each forest type remains at or above its levels at the time of the inscription of the property on the List of World Heritage in Danger, and thus that there is no further loss of primary forest cover and no further net loss of secondary forest cover in the property as a result of human-induced disturbance. The baseline data to be used are those of 2011, which will become available in the first half of 2014 as part of the ongoing land cover analyses by UNESCO-Jakarta.

An important consideration in the future assessment of this indicator is that any loss of forest cover (primary and/or secondary) as a result of volcanic eruption or other natural disaster will not be considered in measuring the success of this indicator. However, in such cases, the impact of forest loss on the Outstanding Universal Value of the property will have to be carefully assessed and appropriate measures taken to restore damaged areas.

Indicator 2: Population Trend Data for Key Species of Fauna

It is feared that the Sumatran Elephant population has shown a marked decline in BBSNP since 2002, but the results of a recent fecal DNA based capture-recapture survey conducted by WCS are needed to confirm this (laboratory work is ongoing). In GLNP, the populations of Sumatran Orangutan, Sumatran Tiger, Sumatran Elephant and Sumatran Rhino are believed to be decreasing (2012, IUCN & WHC State of Conservation report), although exact numbers and rate of decline are unknown. However, recent discoveries (2011) show that orangutan occurs at

higher altitudes than previously believed, and therefore suggest that previous population estimates may have been underestimated. The rhino population in BBSNP appears to be stable, and the fact that seven calves were recently identified through camera trapping is encouraging. There is evidence of active tiger and elephant poaching in KSNP (2012, IUCN & WHC State of Conservation report), and many smaller species in the property, including song birds, are under intensive pressure and in decline.

The indicator should show a total increase of 3% between 2007 and 2017 of the Sumatran Elephant population, in line with the Strategy and Action Plan for the Conservation of Sumatran and Kalimantan Elephant (2007-2017). For Sumatran Rhino, the indicator should show that by 2020 the property-wide population is increasing at 3% annually, in line with the Bandar Lampung Declaration (2013). For Sumatran Tiger, the indicator should show that by 2022, the property-wide population has doubled as measured against the 2010 baseline, in line with the Saint Petersburg Declaration on Tiger Conservation (2010). Furthermore, the indicator should show a continuous positive trend in occupancy data for all three above-mentioned species as well as for Sumatran Orangutan.

Indicator 3: Road Development

Road development plans are a recurring threat to the property. Local governments around all three components of the property, but particularly around KSNP, are proposing new roads to meet local development needs and to serve as evacuation routes in case of natural disasters. In some cases where roads have been openly proposed they appear to have resulted in serious threat to forests, for example at Kambang in Pesisir Selatan district (mid to late 1990s), in the Tandai area of Solok Selatan district, and in the Renah Pemetik area of Kerinci where in 2012 national parks forests were being cleared in anticipation of a new trans-park road. Even seemingly low-impact proposals can result in significant threat to forests, as exemplified by a case in 2006, where permission in principle was given to build a footpath between Lempur (Kerinci district) and Sungai Ipuh (Mukomuko district), but instead Kerinci district commenced development of an inter-state highway. This was subsequently stopped.

In BBSNP, the Sanggi – Bengkunt road continues to restrict the range of Sumatran Rhino to the central part of the national park. Also in BBSNP, a proposal to upgrade the existing footpath between Way Haru and Sukaraja / Way Hening to a road for motorcycles in order to provide access to health care is currently awaiting approval.

Development of roads in areas adjacent to the property can also result in a negative impact on its Outstanding Universal Value. In 2008, a 15 km long, 8 m wide road was constructed between Kerinci and Merangin, running south and outside the national park, but through a tiger corridor, resulting in ongoing conflicts and incidences of poaching. In the vicinity of GLNP, road construction has cut off wildlife corridors and resulted in the fragmentation of habitats in the Leuser Ecosystem⁵, including the Muara Situlen – Gelombang road which cuts off a wildlife corridor between GLNP and the Singkil Marshland Wildlife Reserve; one of the areas identified

⁵ http://www.walhi.or.id/v3/index.php?option=com_content&view=article&id=2791:pembangunan-jalan-aceh-putus-koridor-satwa&catid=82:berita-hutan&Itemid=85

by IUCN as being of high biodiversity importance. This situation has resulted in increased human-wildlife conflict, particularly with elephant and tiger. In addition, the proposed Ladia Galaska road through the Leuser Ecosystem, which has been a major concern among environmental organizations since at least 2004 due to its potential environmental and social impacts (including landslides and flooding), is still under active consideration by the Government of Aceh.

In 2009, Merangin district drove a road through KSNP to Renah Kemumu enclave to deliver relief and construction supplies after a major earthquake in Padang, which was followed by smaller shocks in south Kerinci and Renah Kemumu. This road was legalized in early 2011 under natural disaster/emergency legislation, forming the basis of the current situation where new evacuation routes are being proposed. Also in early 2011, the Vice President of the Republic of Indonesia announced a proposal for the formation of the Jambi Economic Corridor. Many of the proposed road developments through KSNP may be driven by a desire of local governments to link up to the new Economic Corridor on Sumatra. This is one of six economic corridors in Indonesia recently established by the President to serve as hubs for development, including infrastructure development, energy production and commercial plantations.

The indicator should show that there are no new road developments or road development proposals. In addition, it should show that there are no changes/adjustments to existing roads (including widening and paving) within the property or in adjacent areas where they could negatively impact on the Outstanding Universal Value of the property.

Indicator 4: Mining

In Indonesia, mining is not allowed in protected areas, with the exception of protection forests (Hutan Lindung). While there have been reports of mining concessions overlapping with GLNP in southeast Aceh, the State Party has asserted that this overlap was the result of different interpretations of the boundaries of the national park. This situation highlights the need for boundary clarification (see below), as well as the need to review all existing mining concessions in the vicinity of the property to ensure that there are no overlaps. Mining exploration activities are ongoing in areas adjacent to KSNP, including in High Conservation Value Forests (HCVF).

Appropriate mitigation and other management measures should be in place for mines in areas adjacent to the property, in order to limit their potential negative impacts on the property's OUV. The State Party assured that any mining that occurs within the boundaries of the property is illegal, and noted that illegal sand mining in BBSNP, which had been a problem in the past, no longer occurs. Nevertheless, the park manager of KSNP confirmed to the mission that illegal community-based (small-scale) gold mining inside the boundaries of the property has been ongoing since before the establishment of the national park.

The indicator should show that there are no mining concessions overlapping with the property, in line with the Committee's established position that mining is incompatible with World Heritage status. Furthermore, it should show that mines in adjacent areas where mining could have negative impacts on the property's OUV are subject to appropriate mitigation and other

management measures to limit those impacts to a minimum. Finally, illegal small-scale mines inside the property should be closed and the affected areas rehabilitated.

Indicator 5: Boundary Demarcation

The boundaries of the three components of the property are undergoing re-demarcation to clarify their location. Approximately one-third of the property was re-demarcated over the past decade. In some areas, boundary markers have been removed by local communities. According to Law No. 41/1999 on Forestry and Government Regulation No. 6/2007 on Forest Planning and Development of Forest Management Plans as well as Forest Utilization, the establishment of protected areas in Indonesia is not complete until boundary demarcation has been implemented on the ground. This is further enforced by Court Ruling 45/PUU-IX/2011, which notes that boundary demarcation should be part of the official gazette of forest areas.

The indicator should show that the entire boundary of the property is adequately and accurately demarcated on the ground, at all three component national parks.

Indicator 6: Law Enforcement

According to the draft Statement of Outstanding Universal Value, park management staff capacity to combat illegal wildlife trade and encroachment is still a weakness in the management of the property. The mission was also informed that transgressors apprehended on charges of wildlife trade are tried under Forest Law, rather than Criminal Law, which results in modest sentences.

The indicator should show that the capacity of law enforcement agencies, including park authorities, to deal with illegal human activities is adequate, through the implementation of a Resort-Based Management system, complemented by the Forest Ranger Partnership programme and the Forest Fire Partnership programme, which engage local communities in patrolling and forest fire prevention.

Laws and regulations already exist for the management of illegal trade in wild species (threatened or not), and anyone who trades in wildlife is required to have a licence. Nevertheless, poaching and wildlife trade remain of concern. The indicator should show that the rate of prosecution and subsequent conviction as a percentage of arrests has significantly increased compared to the current levels. Measures should be taken to effectively control the illegal wildlife trade, such as through the development and implementation of strategic plans for the control of poaching and wildlife trade as is currently being developed for KSNP, in partnership between the national park authorities, the Natural Resources Conservation Agency, NGOs, local police forces and the prosecution office. To more effectively prevent the illegal trade in wildlife, the mission also recommends that the Government of Indonesia develop a national strategy on this subject with an adequate budget, and declare the illegal trade in wildlife a serious crime so that transgressors can be tried under Criminal Law.

Indicator 7: Management of the Wider Landscape

When the property was nominated for inscription on the World Heritage List, IUCN noted in its evaluation that much of the critically important habitat for some key species (including tiger, elephant and orangutan) is located outside GLNP in the surrounding Leuser Ecosystem. Agricultural expansion of plantation crops (cocoa, rubber, oil palm) around GLNP occurs mostly in the lowland forests where most Sumatran orangutans are found, putting these areas of critical habitat at significant risk and jeopardizing the integrity of the property.

The indicator should show that the National Strategic Area (NSA) that is in the process of being implemented for Gunung Leuser will sustain these critically important habitats for key species and ensure their ecological connectivity to each other and the property. The long-term protection of GLNP and the wider ecosystem should also be accommodated in the Aceh Spatial Plan that is currently being developed.

The establishment of NSAs for all three components of the property is also considered an appropriate means for creating effective buffer zones and regulating development to ensure that it is sustainable.

4.2. Emergency Action Plan

In Decision **35 COM 7B.16** the Committee invited the State Party “to apply for International Assistance in order to develop an action plan that would enable the removal of the property from the List of World Heritage in Danger...”. The State Party received USD 30,000 in International Assistance from the World Heritage Fund in June 2012 to support the development of said action plan. It reviewed the 2007 Emergency Action Plan (EAP), and the revised draft EAP was the subject of a number of regional socialization workshops followed by a national workshop in Jakarta (19-20 November 2012) where it was presented alongside the draft DSOCR.

As the revised draft EAP was completed several months before the draft DSOCR was provided to the State Party, the two documents were not mutually compatible and complementary. One recommendation that came out of the November 2012 workshop was to revise the EAP to ensure its compatibility with the DSOCR. The State Party, with the assistance of UNESCO-Jakarta, developed a revised draft EAP and presented this to the mission for further discussion. The mission found that this revised draft was already largely compatible both with the agreed DSOCR and with the Corrective Measures (see section 5 “Conclusions and Recommendations”), and further amendments were made during the mission, in consultation with the State Party, including the addition of detail around timing of actions, which stakeholders are involved, and which institutions / agencies are responsible for the implementation of each action.

The final agreed EAP is attached to this report (Annex V) and covers a period of five years, after which it should be evaluated and revised as necessary.

5. CONCLUSIONS AND RECOMMENDATIONS

The overall conclusion of the mission is that the Tropical Rainforest Heritage of Sumatra remains under threat, but that positive steps are being taken by the State Party and a range of other stakeholders. The DSCOR and the Emergency Action Plan are ambitious but feasible within the context of a five to ten year timeframe.

In discussion with the State Party, a set of Corrective Measures has been agreed, addressing the most urgent and important issues. The mission recommends that the Committee adopt these Corrective Measures, as listed below:

TRHS Corrective Measures

1. Significantly enhance law enforcement capacity by developing and implementing a strategic plan for the control of illegal activities, as a collaborative effort involving national park authorities, the Natural Resources Conservation Agency, NGOs, local police forces, local government and the prosecutor's office. The strategic plan should include measures to:
 - a. provide law enforcement agencies with adequate resources to expand their activities;
 - b. ensure that reports of illegal activities are quickly and efficiently responded to, and that transgressors are tried on the basis of conservation law (in addition to criminal law);
 - c. identify and prosecute syndicates, networks and businesses involved in illegal activities, in cooperation with the relevant authorities for the eradication of forest crime and corruption;
2. Strengthen property-wide monitoring of key species, including Sumatran Elephant, Tiger, Rhino and Orangutan, by:
 - a. enhancing collaboration among Government, NGOs and universities;
 - b. agreeing on a common methodological framework for monitoring each species;
 - c. expanding monitoring efforts to address geographical gaps in monitoring activities;
 - d. synchronizing data analyses for all key species to facilitate progress reporting;
3. Strengthen species recovery efforts by implementing habitat improvement and ecosystem restoration programmes, as required, including the control of invasive species;
4. Maintain the policy that prohibits the construction of new roads in national parks, and conduct a Strategic Environmental Assessment of the road network in the entire Bukit Barisan Mountain Range, in order to identify transport options and technologies for the region that do not adversely impact on the property's Outstanding Universal Value;
5. Ensure that rigorous Environmental Impact Assessments are carried out for all proposed developments within the property (eg. road improvement projects) and in its vicinity (eg. mining projects), to ensure that these do not have a negative impact on the Outstanding Universal Value of the property;
6. Close and rehabilitate all mines within the property, investigate the existence of any mining concessions and exploration permits that overlap with the property, and revoke any overlapping concessions and/or permits that are identified;

7. In consultation with relevant stakeholders, including local communities, clarify in law the boundaries of each component national park of the property, and complete the demarcation of these boundaries on the ground;
8. Ensure that all provinces, districts and sub-districts that overlap with the property recognize its World Heritage status and avoid the designation of development zones within its boundaries;
9. Ensure that the World Heritage Working Group under the Coordinating Ministry of People Welfare is taking an active role in promoting strong coordination between different ministries in the protection and management of the property;
10. Ensure that the National Strategic Areas process establishes buffer zones around each national park in the property and identifies and protects critical wildlife habitats outside the property.

In addition to these corrective measures, the mission makes the following recommendations:

Recommendation 1 - Geothermal Development: Ensure that any development of geothermal energy within the property remains prohibited by law, and provide ample notice to UNESCO and IUCN of any plans to develop geothermal energy in areas adjacent to the property. All development proposals should be the subject of rigorous Environmental Impact Assessments (EIAs) to determine the likely effects on the property's OUV; EIAs should be conducted in accordance with the World Heritage Advice Note on Environmental Assessment prepared by IUCN⁶.

Recommendation 2 - Boundary Modification: Investigate the desirability/feasibility of modifying the boundary of the property in order to better represent its Outstanding Universal Value. It is important to emphasize that any possible future boundary modifications should be carried out on the basis of OUV and supported by strong scientific evidence. Boundary modifications would also need to be proposed to the World Heritage Committee in line with the appropriate procedures as set out in the *Operational Guidelines*.

Recommendation 3 - Aceh Spatial Plan: Rigorously ensure that the Aceh Spatial Plan explicitly recognizes the boundaries of the property and that no land is allocated for development purposes either within or immediately adjacent to the property. The new spatial plan should also make adequate provisions for the identification and conservation of critical wildlife habitats that lie outside the property.

⁶ http://iucn.org/about/work/programmes/wcpa_worldheritage/resources/policies/

ANNEXES

Annex I – Terms of Reference

Annex II – Mission programme

Annex III – List and contact details of people met

Annex IV – Activities of NGOs and other stakeholders in and adjacent to the property

Annex V – Emergency Action Plan

Annex I: Terms of Reference
IUCN Reactive Monitoring Mission
Tropical Rainforest Heritage of Sumatra – Indonesia

23-30 October 2013

At its 37th session, the World Heritage Committee requested the State Party of Indonesia to invite a reactive monitoring mission to be undertaken by IUCN (Decision **37 COM 7A.14**). The objective of the monitoring mission is to conclude through consultation with the relevant institutions, including the World Heritage Centre, the Desired state of conservation for the removal of the Tropical Rainforest Heritage of Sumatra from the List of World Heritage in Danger, the corrective measures, and the Emergency Action Plan. The mission will be conducted by Scott Perkin and Remco van Merm of the IUCN Secretariat.

In particular, the mission should address the following key issues:

1. Finalize the Desired state of conservation for the removal (DSOCR) of the property from the List of World Heritage in Danger, including a realistic timeframe for achieving the indicators;
2. Develop a set of Corrective Measures to support and complement the DSOCR, including a realistic timeframe for their implementation;
3. Provide advice to the State Party for finalizing the Emergency Action Plan, in order to ensure that it is compatible and complementary to achieving the indicators of the DSOCR;
4. The above activities should be fully completed during the mission, in order to allow the State Party to submit an agreed version of the above three documents to the World Heritage Centre by 1 December 2013, as requested by the Committee.

A field visit will not be required during this mission. In order to enable preparation for the mission, it would be appreciated if the following items could be provided to the World Heritage Centre (copied to IUCN) as soon as possible, and preferably no later than one month before the mission:

- a) The most recent version of the Emergency Action Plan;
- b) The most recent population data of Sumatran Tiger, Sumatran Elephant, Sumatran Orangutan and Sumatran Rhinoceros, as well as comprehensive time series data on poaching of these and other species in the property;
- c) Comprehensive time-series data and satellite imagery of forest cover in the property, preferably indicating different forest types;

- d) Detailed information about the plans for constructing a geo-thermal facility within the boundaries of the property, including any (preliminary) impact assessments that have already taken place;

The mission should hold consultations with the Indonesian authorities at national and provincial levels, in particular senior representatives of the Ministry of Forestry (Menhut), the Coordinating Ministry for People's Welfare (Menkokesra), Ministry of Energy and Mineral Resources (ESDM), the National Development Planning Agency (Bappenas). In addition, the mission should hold consultation with a range of relevant stakeholders, including i) researchers; ii) NGOs; and iii) representatives of local communities.

Based on the results of the above-mentioned discussions with the State Party representatives and stakeholders, the mission will assist the State Party of Indonesia in finalizing the DSOCR, the Corrective Measures and the Emergency Action Plan for submission to the World Heritage Centre by 1 December 2013.

The mission will prepare a concise mission report on the findings and recommendations of this reactive monitoring mission no later than 6 weeks after the end of the field visit, following the standard format.

Annex II: Mission programme
Actual Agenda Reactive Monitoring Mission Team-IUCN
24 – 30 October 2013

Date	Time	Agenda	Location	Participants
Thursday, 24 October 2013	10.00-12.00	Entry Briefing	MenkoKesra office	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, UNESCO, KNIU, etc.
	12.00-13.00	Lunch Break	Ibis	
	13.00-15.00	Consultation with NGOs	Ibis	KEHATI, Leuser International Foundation
Friday, 25 October 2013	09.00 – 16.00	Discussion and completion of Draft <i>Desired State of Conservation</i> (DSOCR)	At the hotel where the team will stay	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, UNESCO, KNIU, KEHATI etc.
Saturday - Sunday, 26 - 27 October 2013	-	Consultation with NGOS and drafting the report	Ibis hotel	IUCN, Ministry of Forestry (Saturday), WCS (Saturday), YABI (Saturday), WWF (Sunday)
Monday, 28 October 2013	09.00 – 16.00	Fine-tuning of DSOCR and discussion and completion of Corrective Measures	Ibis hotel	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources,

Date	Time	Agenda	Location	Participants
				Ministry of Foreign Affairs, UNESCO, KNIU, KEHATI etc.
Tuesday, 29 October 2013	09.00 - 11.00	Discussion and completion of Draft Emergency Action Plan	Ibis hotel	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, UNESCO, KNIU, etc.
	11.00 – 16.00	Discussion of Draft : 1. DSOCR + Corrective Measures 2. EAP	Meeting room of DG PHKA, Block VII, 7th Fl. Gedung Manggala Wanabakti	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, UNESCO, KNIU, etc.
Wednesday , 30 October 2013	09.00 – 11.00	Exit Briefing	Indonesia NATCOM office	IUCN, Ministry of Forestry/PHKA, Ministry of Public Work, BAPPENAS, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, UNESCO, KNIU, etc.

Annex III: List and contact details of people met

No	Name	Institution	email
1	Adi Nuryanto	Indonesian NATCOM	Adi.nuryanto@kemdikbud.go.id
2	Agusril	Directorate General of Forest Protection and Nature Conservation	
3	Ahmad Munawir	Directorate General of Forest Protection and Nature Conservation	wiratns@gmail.com
4	Anis s. Aliati	Directorate General of Forest Protection and Nature Conservation	as_alianti@yahoo.com
5	Anton Winarto Putro	Ministry of Public Work	Wilayah1tamras@gmail.com
6	Arief Rachman	Indonesian NATCOM	aspnetind@cbn.net.id
7	Dohardo Pakpahan	Coordinating Ministry of People Welfare	chr.iar@gmail.com
8	Erna Sugih Priatin	Ministry of Foreign Affairs	ernasugih@yahoo.com
9	Eva Monita	Directorate of Biodiversity Conservation	bernadetaera@gmail.com
10	Haswan Yunaz	Coordinating Ministry of People Welfare	haswanyunaz@yahoo.com
11	Hidayah Hamzah	Unesco Jakarta	h.hamzah@unesco.org
12	Irfan Wahyudi	Ministry of Home Affairs	Irfan.wahyudi08@yahoo.com
13	Jamal M. Gawi	Leuser International Foundation (YLI)	jamalgawi@gmail.com
14	Jefry s	Directorate General of Forest Protection and Nature Conservation	Jef_fry@yahoo.com
15	Klaudia O.S	Ministry of Public Work – Spacial Planning	Wilayah1tamras@gmail.com
16	Luki Turniajaya	Directorate General of Forest Protection and Nature Conservation	
17	M. Arief Toengkagie	Kerinci Seblat National Park	toengkagie@yahoo.com
18	Marlenni Hasan	Directorate General of Forest Protection and Nature Conservation	lennikris@yahoo.com

19	Matnali Rianto. B, ST, MT	Ministry of Public Work	matnalirianto@yahoo.co.id
20	Meyner Nusalawo	WCS	m.nusalawo@wcsip.org
21	Mirawati s	Directorate General of Forest Protection and Nature Conservation	mirawatisoedjono@gmail.com
22	Mirza D Kusrini	IPB Forestry Faculty	Mirza_kusrini@yahoo.com
23	Nazir Foad	WWF	nfoead@wwf.or.id
24	Nur Hasanah	Unesco Jakarta	n.hasanah@unesco.org
25	Puspa D Liman	TFCA Kalimantan - Kehati	pdliman@gmail.com ; puspa.dliman@kehati.or.id
26	Rante Sapan	Indonesia NATCOM	rantesapan@yahoo.com
27	Retno Suratri	Directorate General of Forest Protection and Nature Conservation	Suratri2000@yahoo.com
28	Samedi	TFCA Sumatra	samedi@tfcasumatera.org
29	Ujang Wisnu Barata	Gunung Leuser National Park	Wisnoe_bharata@yahoo.com
30	Wahyu Suharto	Ministry of Home Affairs	wsuharto@yahoo.com
31	Widodo Ramono	YABI	widodoramono@yahoo.com

Annex IV: Activities of NGOs and other stakeholders in and adjacent to the property

During the course of its work, the mission met with and received valuable information from several non-governmental organizations and other stakeholders operating in and/or adjacent to the property. These organizations are making an important and positive contribution to the overall conservation and management of the property, and their principal areas of focus are briefly summarized below:

Leuser International Foundation: The Leuser International Foundation was established in 1994 and currently employs some 70 staff. It promotes both conservation and development objectives. Conservation activities have included rhino surveys, support for patrolling, the creation of a Rhino Protection Unit and research on tigers (in collaboration with the Wildlife Conservation Society). Development activities have included the provision of micro-credit, spatial planning and the implementation of a comprehensive environmental education programme involving textbook production, teacher training, and the formation of eco-clubs.

UNESCO: From 2008, UNESCO was involved in the protection of critical habitats in the Gunung Leuser Biosphere Reserve. Activities included: the restoration of 27 hectares of degraded forest; the promotion of alternative livelihoods such as organic farming; the development of ecotourism; and the provision of support for patrolling and Resort-based Management. Although UNESCO acknowledged that the area of restored forest was very small, the project led to a significant reduction in illegal logging and a number of illegal loggers were converted into eco-tour operators.

Wildlife Conservation Society: WCS is working in both GLNP and BBSNP. Activities have focused on: tiger and elephant research; support for the Wildlife Crime Unit; and support for the Wildlife Response Unit (which seeks to reduce human-wildlife conflict, particularly conflict related to tigers).

WCS has carried out tiger surveys in BBSNP and GLNP since 1998 and 2008, respectively. A baseline survey of elephants was carried out in BBSNP in 2002. More recently, an elephant survey based on genetic analysis has been completed but the results have not yet been finalized.

WCS has also carried out satellite imagery analyses using imagery from the 1970s up to the present day. It has recently acquired the 2012 imagery for BBSNP, and plans to compare this imagery with that from 2009 to assess the rate of change.

WWF: WWF is providing support for BBSNP, carrying out policy work and spatial planning in Aceh, advising on the development of freshwater regulations, and undertaking measures to mitigate human-wildlife conflict.

In a particularly important initiative, WWF is also working with some 1,500 farmers to increase the productivity and quality of coffee holdings outside the national park, in return for abandoning holdings within the park. This includes assisting farmers to acquire the equipment and skills they require to measure the quality of their coffee themselves, so that they can secure the best

prices. WWF is also engaged with companies such as Nestle and Lavazza to improve measures to enhance traceability.

YABI (Indonesian Rhino Foundation): YABI's principal activity is the operation of a Rhino Protection Unit in BBSNP. Although it is not directly involved in Gunung Leuser National Park, YABI provides support to the Leuser International Foundation (which does operate in and around the GLNP); this includes the provision of training in rhino protection.

YABI and WWF are hoping to carry out an island-wide assessment of rhinos, using camera trapping, occupancy surveys and genetic analysis.

Annex V: Emergency Action Plan

No	REQUIREMENT (DSOCR or CMs) FOR REMOVAL OF THE PROPERTY FROM THE LIST IN DANGER	FIVE-YEAR ACTION PLAN 2014 - 2018					STAKEHOLDERS INVOLVED	
		ACTIVITIES	YR 1	YR 2	YR 3	YR 4		YR 5
1	Forest Cover	Determine the 2011 baseline of forest cover per forest type	x					National Park; Directorate General of Forestry Planology; UNESCO
		Provision of satellite imageries	x			x		Directorate General of Forestry Planology
		Forest cover mapping (every 3 years)	x			x		Directorate General of Forestry Planology
		Field verification		x			x	National Park , NGO's
2	Population trend data for key species of fauna	Regular monitoring of key species populations	x	x	x	x	x	National Park, NGO's, Directorate of Biodiversity Conservation
		Development of wildlife monitoring module	x					Directorate of Biodiversity Conservation, Indonesia Institute of Sciences (LIPI)
		Training for wildlife monitoring	x		x		x	National Park, NGO's, Directorate of Biodiversity Conservation
		Providing property monitoring equipment and facilities (camera trap, GPS collar, vehicles, observation towers, laboratories, field stations, permanent monitoring plots, etc.)	x	x	x	x	x	National Park, NGO's, Directorate of Biodiversity Conservation
		Development and maintenance of biodiversity database	x	x	x	x	x	National Park, NGO's, Directorate of Biodiversity Conservation, LIPI
		Identification and mapping of areas of human-wildlife conflict	x	x	x	x	x	Directorate Investigation and Forest Protection, National Park, Directorate of Biodiversity Conservation, NGO's
		Mapping present road and proposed road establishment using remote sensing	x				Ministry of Public Works, Coordinating Ministry of People Welfare, UNESCO, National Park, Directorate of Forestry Planology	

3	Road development	Require SEA for proposed road establishment around NP	x					Ministry of Public Works, Directorate of Conservation Areas , Ministry of Environment, UNESCO Indonesia
		Aligning all funds from central and regional government to all road construction that pass through NP	x	x	x	x	x	Ministry of the National Development Planning Agency, Ministry of Public Works, Coordinating Ministry of Economic Affairs, Forestry, Ministry of Home Affairs and Local Government (Aceh, Sumut, Sumbar, Sumsel, Jambi, Bengkulu and Lampung)
		Monitoring existing road	x	x	x	x	x	National Park, Directorate Investigation and Forest Protection, Ministry of Public Works, NGO's
4	Mining	Mapping present mining concession adjacent to national park	x		x		x	Ministry of Energy and Mineral Resources, Coordinating Ministry of People Welfare, National Park
		Monitoring mining concession adjacent to national park		x	x	x	x	Ministry of Energy and Mineral Resources, National Park, NGO's