Mount Hamiguitan Range Wildlife Sanctuary

SITE INFORMATION

Country:
Philippines
Inscribed in: 2014
Criteria:
(x)

Site description:

Forming a mountain ridge running north-south along the Pujada Peninsula in the south-eastern part of the Eastern Mindanao Biodiversity Corridor, the Mount Hamiguitan Range Wildlife Sanctuary has an elevation range of 75–1,637 m above sea level and provides critical habitat for a range of plant and animal species. The property showcases terrestrial and aquatic habitats at different elevations, and includes threatened and endemic flora and fauna species, eight of which are found only at Mount Hamiguitan. These include critically endangered trees, plants and the iconic Philippine eagle and Philippine cockatoo.

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SUMMARY

2017 Conservation Outlook

Good

Threats to the Mt Hamiguitan Range Wildlife Sanctuary exist, however at the time of this assessment, they are potential more than current. On the one hand surrounding development and landuse such as mining pose a potential threat to the property and emerging issues such as climate change and tourism growth have the potential to adversely impact the site’s fragile ecological systems. On the other hand the values of MHRWS are protected and intact and the property is of an adequate size with a substantial buffer zone to ensure forest values and critical habitats are maintained. The property enjoys strong legal protection, an integrated management planning framework and so far an effective coordination system between various levels of government, the local community and indigenous interests. Ongoing effort is needed to ensure adequate staffing capacity and sustained financial resourcing for the site.

Current state and trend of VALUES

Good

Trend: Data Deficient

Recent studies and monitoring show that the property is preserved and intact. This assessment forms a baseline as the MHRWS is a relatively new inscription. There appear to be few current threats to the site excepting those which emanate from outside the property. In this regard the increased buffer zone will assist in combating threats and the effective government and community coordination should ensure that surrounding development and activities do not adversely affect the site. The site enjoys multiple levels of legal protection and good planning and programmes have been established to consider the potential impact of tourism and climate change on values.
Overall THREATS

Low Threat

The expansion of the site and the buffer zone (since the original nomination) has increased the inscribed area some 2.5 fold and the buffer zone some 12 fold thus bolstering the integrity of the property. Overlapping land claims have been satisfactorily resolved and mining threats sit outside of the property. The site is thus relatively free from current threat. The potential risks from climate change and increasing tourism use are being addressed through effective plans with respect to monitoring and management. Currently, Martial Law has been declared in the whole of Mindanao and if the conflict escalates or if Mt. Hamiguitan is made into an area for retreat by the terrorists then this would have very serious impacts on the World Heritage site. However, for now this remains a potential threat only and it is difficult to predict how the situation might unfold.

Overall PROTECTION and MANAGEMENT

Mostly Effective

The Mount Hamiguitan Protected Area Management Board (PAMB) oversees protection and management of the property in accordance with the Mount Hamiguitan Range Wildlife Sanctuary Management Plan of 2011. The Protected Area Superintendents Office (PASO) implements the activities in the Plan as well as the policies and directives issued by the PAMB. Together with the “Bantay Gubat” (personnel from the three municipalities with territorial jurisdiction over the nominated property), the PASO conducts regular monitoring and patrol activities over the core and buffer zones.

The municipalities overlapping the property have aligned their tourism and development plans to the Management Plan of the MHRWS, helping to ensure that the importance of protection of the property will be given the necessary recognition and consideration and that development will not hamper or detract from the conservation and protection of the biodiversity of the site. (WHC, 38COM Decision 2014).

Some concerns exist regarding sustainable staffing and funding for the property, however on balance it is well protected and managed.
FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ Critical habitat for a range of plant and animal species within the globally significant Philippine Biodiversity Hotspot

Criterion:(x)

The Mt. Hamiguitan Range Wildlife Sanctuary (MHRWS) represents a complete, substantially intact and highly diverse mountain ecosystem in a globally significant biogeographic region of the Philippines. The property is home to both terrestrial and aquatic habitats, at a series of different elevations characterized by highly dissimilar soil and climate conditions. Five vegetation types exist within the site; agro-ecosystems on lower elevations, dipterocarp forests, montane forests and mossy forests on higher elevations and mountain slopes, and mossy-pygmy forests on the highest windswept mountaintops. (IUCN Evaluation, 2012)

The MHRWS provides a sanctuary to a host of globally threatened and endemic flora and fauna species, eight of which are found nowhere else except Mount Hamiguitan. These include critically endangered trees, plants and the iconic Philippine Eagle and Philippine Cockatoo. (UNESCO SoOUV, 2014). The property supports a high percentage of the bird (20%), amphibian (20%), mammal (16%), reptile (14%) and plant (10%) species within the Philippines Biodiversity Hotspot (UNEP-WCMC, 2012).

The combination of terrestrial and aquatic ecosystems within the boundaries of the property and the large number of species inhabiting each makes the Mount Hamiguitan Range Wildlife Sanctuary home to a total of 1,380 species with 341 Philippine endemics that include critically endangered species such as the iconic Philippine Eagle (Pithecophaga jefferyi) and the Philippine...
Cockatoo (Cacatua haematuropygia), as well as the trees Shorea polysperma, Shorea astylosa, and the orchid Paphiopedilum adductum. Its high level of endemicity is well exemplified by the proportion of its amphibian (75% endemic) and reptile (84% endemic) species (SoOUV, 2014).

Other important biodiversity values

► Significant biodiversity values

The global significance of the rainforests of southern Mindanao has long been recognized (IUCN Evaluation 2012). MHRWS exhibits high concentrations of endemism in a small area and as such is identified as a Key Biodiversity Area (KBA) and Biodiversity Hotspot by Conservation International. In addition the property has been identified as an Important Bird Area (IBA) and Endemic Bird Area (EBA) by Birdlife International and also coincides with a Global 200 priority ecosystem identified by WWF (UNEP-WCMC, 2012; IUCN Evaluation Mission, 2012)

Assessment information

Threats

Current Threats

Very Low Threat

The property is substantially well preserved and intact. It is in a relatively pristine condition and thus relatively free from current threats. It has laws which prohibit incompatible activities such as logging, mining, exploration or surveying for energy resources inside the property. The protection of the property is further strengthened by the engagement with and involvement of local and indigenous communities living in its periphery. (WHC 38COM Decision, 2014)
Housing/ Urban Areas
Data Deficient
Inside site
Outside site

At the time of the initial nomination the State Party estimated less than 100 people within the property and only small numbers in the buffer zone (SP Nomination, 2012); however, figures are not available for the enlarged property.

Tourism/ visitors/ recreation
Very Low Threat
Inside site

There are strict controls over access to the site. The property has been indefinitely closed to visitors, other than researchers, until a trail management plan has been formulated and approved. (SP Referral Document, 2014).
As part of the overall Management Plan, a five year visitor and tourism management plan is now in place to ensure the effective management of tourism use. The municipalities overlapping the property have aligned their tourism and development plans to the Management Plan of the MHRWS, helping to ensure the importance of the protection of the property. (WHC 38COM Decision, 2014)

Mining/ Quarrying
Low Threat
Outside site

Mining operations continue in and adjacent to the buffer zone. However, there has been progress made in terms of management and agreement between mining lease-holders with the mining company agreeing to cooperate with respect to protection of important habitats. In addition some mining lease proposals have been refused at the local governmental level. (IUCN Evaluation, 2012)

Logging/ Wood Harvesting
Low Threat
Inside site
Outside site

Threats in and around the property include: the Illegal collection of wildlife; the Illegal removal of timber and the Illegal collection of non-timber forest products. The protection of the property is strengthened by the engagement with and involvement of local and indigenous communities living in its periphery in the management of the property. These include successful sustainable development and rehabilitation activities which are being undertaken by the Philippine Department of Environment and Natural Resources (DENR) and in particular, the Protected Area and Wildlife Bureau (PAWB) of the DENR and the Protected Area Management Board (PAMB). (SP Nomination, 2012)

Crops

Very Low Threat

Inside site, extent of threat not known

Outside site

Whilst there has been some conversion of land for agriculture and the use of slash-and-burn farming (kaingin) the State Party continues to work collaboratively with local communities and indigenous peoples on the management of the property to resolve any outstanding land claims. (WHC 38COM Decision, 2014)

Potential Threats

Low Threat

Two issues have been identified as the most significant potential threats to the property: climate change and increased tourism access. Climate change has the potential to seriously impact on the vegetation of the MHRWS which is highly elevation and soil condition dependent and thus sensitive to precipitation and temperature variations. The State Party has put in place the MHRWS Monitoring & Assessment Programme for Climate Change Adaptation to consider the potential impact of climate change (see below). (WHC 38COM Decision, 2014)

The property is closed to tourism access pending finalization of a trail management plan. However, the increased demand for access following inscription may lead to increased pressure on MHRWS’s sensitive ecological communities. (IUCN Evaluation, 2013). A Tourism Management plan has been
developed to plan for the threat of increasing tourism (see below). (WHC
38COM Decision, 2014). Currently, Martial Law has been declared in the whole
of Mindanao and if the conflict escalates or if Mt. Hamiguitan is made into an
area for retreat by the terrorists then this would have very serious impacts on
the World Heritage site. However, for now this remains a potential threat only
and it is difficult to predict how the situation might unfold.

▶ **Tourism/ visitors/ recreation**

  Low Threat
  Inside site

  The inscription of the property may result in pressure to provide access and
  an increase in visitation. Tourism related activities may directly impact on
  the property and resources within the park. Issues that may arise include
  pollution, waste management etc. (IUCN Evaluation Mission, 2012). Plans
  have been developed to address this.

▶ **Temperature extremes**

  Low Threat
  Inside site
  Outside site

  MHRWS is not currently subject to detectable significant impacts from
  climate change. Nonetheless there are likely impacts of climate change on
  species compositions, ranges, seasonal cycles, habitat preferences etc.
  Changes to weather patterns and a higher frequency and intensity of natural
  disasters such as landslides, storms and droughts could impact the property
  in the future. (IUCN Evaluation, 2012)

  There is a Monitoring and Assessment Program for Climate Change Adaption
  being carried out by the Technical Group for the continued socio-cultural,
  economic, and ecological study in Mount Hamiguitan Range, led by the
  Davao Oriental State College of Science and Technology. The information
  derived from the programme is used for the maintenance of biodiversity and
  to safeguard ecosystems. It likewise examines trends in the ecological status
  of the existing ecosystems and species in the area. (SP Referral Document,
  2012)

▶ **War, Civil Unrest/ Military Exercises**

  High Threat
**Outside site**

The siege of Marawi City may result into the retreat of rebel forces or terrorist groups or individuals and the retreat areas will likely include any and all the remaining forested areas in Mindanao. It is important to track what happens after the Martial Law (http://edition.cnn.com/2017/07/22/asia/philippines-mindanao-violence-duterte-extends-martial-law/index.html) ends as this may bring new challenges to the site.

**Protection and management**

**Assessing Protection and Management**

▶ **Relationships with local people**

*Highly Effective*

Impressive levels of local community and NGO involvement are evident in the property, most notably in the Municipality of San Isidro. (IUCN Evaluation, 2012)

The protection of the MHRWS is further strengthened by engagement with and involvement of local and indigenous communities living in its periphery. Their lifestyles and spiritual beliefs are based on respect for the environment and its biodiversity and they have, over time, subtly molded their way of life to ensure the sustainable use of their resources. Local managers continue efforts to work collaboratively with local communities and indigenous peoples on the management of the property and to ensure the equitable access and sharing of benefits, including those that may accrue from tourism. (WHC 38COM Decision, 2014)

The Philippine National Commission for Indigenous Peoples (NCIP) continues to resolve any outstanding land claims. The Province of Davao Oriental continues its work to engage actively the communities of indigenous peoples in villages located in Mati City and the Municipality of Governor Generoso. The indigenous communities recognize that the inscription of the property will contribute to the protection of the mountain. (SP Referral Document, 2012)
Legal framework

Highly Effective

The MHRWS is protected through several protected area regulations and is a component of the Philippines’ National Integrated Protected Areas System (NIPAS). Several layers of national and provincial legislation and policies serve to protect the property and guide management. Apart from delineating the boundaries of the property, these laws prohibit incompatible activities such as logging, mining, exploration or surveying for energy resources inside the property. Responsibility for enforcement is shared by both the national and local government agencies in partnership with other stakeholders. (WHC 38COM Decision, 2014)

Enforcement

Data Deficient

No recent information is available regarding the effectiveness of law enforcement.

Integration into regional and national planning systems

Mostly Effective

The property straddles two municipalities and one city: San Isidro Municipality, Governor Generoso Municipality and the City of Mati, in the Province of Davao Oriental. (WHC 38COM Decision, 2014). MHRWS is a component of the Philippines’ National Integrated Protected Areas System (NIPAS). The laws defining and affecting the property provide for a complementary and generally harmonized level of protection of the property. The laws control development within the boundaries of the property and are consistent in their objectives to protect the key values of the property. Agro-forestry operations intersperse with remnants of the natural forests within the buffer zone and are covered by Community-Based Forestry Management Agreements (CBFMA) and Certificate of Stewardship Contracts (CSC). (IUCN, 2012; WHC 38COM Decision, 2014)

Management system

Some Concern
The property has an umbrella Management Plan dated 2012 which outlines basic management provisions and actions for the different stakeholders and management zones. MHRWS has a zoning system comprising two zones – strict protection and multiple-use (IUCN Evaluation, 2013). An additional 5-Year Visitor and Tourism Management Plan has been developed to define the necessary research and operational measures needed to establish a responsible and sustainable tourism for the nominated property. (SP Referral Document, 2012). Normally, protected areas management plans are revised every five years in Philippines; however, it is unclear if a revision process has been initiated for Mount Hamiguitan (IUCN Consultation, 2017)

▶ **Management effectiveness**
  
  **Data Deficient**

The property consists of land classified as timberland under Land Classification Map Nos. 2660 and 2687 and as such belongs to the state. It is managed by a number of Government agencies including national Government agencies, Provincial level agencies and local community organizations with the Department of Environment and Natural Resources (DENR) assigned as its administrator. (IUCN, 2012)

The PAMB oversees protection and management of the property according to the sanctuary’s management plan. (SP Referral Document, 2012). However it is not clear if the property has ever been subject to formal management effectiveness evaluation.

▶ **Implementation of Committee decisions and recommendations**
  
  **Highly Effective**

The State Party has been very responsive in addressing Committee decisions related to the 2013 referral recommendation. The Committee commended the State Party and stakeholders for the efficient and effective action to address concerns related to integrity, protection and management (WHC 38COM Decision, 2014)

▶ **Boundaries**
  
  **Mostly Effective**

The property totals an area of 16,923 ha with a buffer zone of 9,729 ha. The
boundaries of the property are delineated under legal instruments ensuring protection and management of the site and preventing physical interventions, such as logging, mining exploration or surveying for energy resources. Enforcement responsibilities are shared between national and local governments in partnership with local stakeholders including local and indigenous communities living in the periphery of the property. (IUCN, 2012) (WHC 38COM Decision, 2014). While the boundaries of the World Heritage property largely follow those of the Mount Hamiguitan Range Wildlife Sanctuary, given it's relatively small size, it will be important to ensure that other areas with adequate protection exist beyond the property in order to ensure effective conservation of those species with large range, particularly the Philippine Eagle (IUCN Consultation, 2017).

► Sustainable finance

Some Concern

Despite recent increases in staffing and resources and an obvious commitment from Provincial authorities to the management of the property staffing levels, resources and capacity remain low. At the time of the field evaluation 583,000 USD p.a. was being spent on management with funding coming from a combination of sources including the national government and the Provincial governments of Davao Oriental and the three municipalities of MHRWS. (IUCN Evaluation, 2012)

► Staff training and development

Data Deficient

Data deficient

► Sustainable use

Mostly Effective

The lifestyles and spiritual beliefs of the local and indigenous peoples are based on a healthy respect for the environment and its biodiversity. They have been modified over time to ensure the sustainable use of their resources. (SP Nomination, 2014). Some illegal resource use is occurring however, there appears to be a generally sound collaborative arrangement in place between the authorities and local communities including indigenous
groups.

▶ Education and interpretation programs
Data Deficient

Data deficient

▶ Tourism and visitation management
Highly Effective

MHRWS is currently closed to public visitation pending completion of a trail management plan. A Tourism Management plan has been developed to plan for the threat of potential for increasing pressure for access and higher numbers of park visitors since the inscription of the property on the WH List. (WHC 38COM Decision, 2014)
Tourism planning is comprehensive, and strategic, adopting a market based approach to addressing potential visitor demand. Measures are outlined to ensure the protection of the site’s OUV in the face of rising tourism use. (IUCN Evaluation, 2013).

▶ Monitoring
Highly Effective

Management authorities have implemented a monitoring and research programme to anticipate climate change effects on the biota and to try to mitigate consequent impacts. Ongoing monitoring of threatened and rare plant and animal species is also being carried out on an annual basis. (SP Nomination, 2014) (WHC 38COM Decision, 2014)
The MHRWS Monitoring & Assessment Programme for Climate Change Adaptation aims to better understand the impacts of climate change on the property’s ecological processes, species and abiotic elements. It represents a well-developed, science based strategy to combat the potentially unknown impacts of climate variability and recognizes the potential for climate change impact on the vertical zonation of the site’s vegetation communities. It also attempts to factor in anticipated impacts from visitation. (WHC 38COM Decision, 2014).

▶ Research
Mostly Effective
Research projects and studies, particularly on biodiversity assessment and conservation of endangered, endemic and economically important flora and fauna have been undertaken prior to inscription with local NGOs such as the Philippine Eagle Foundation carrying out research work in cooperation with other academic institutions and Government agencies. (IUCN, 2012). (SP Nomination, 2014)

**Overall assessment of protection and management**

**Mostly Effective**

The Mount Hamiguitan Protected Area Management Board (PAMB) oversees protection and management of the property in accordance with the Mount Hamiguitan Range Wildlife Sanctuary Management Plan of 2011. The Protected Area Superintendents Office (PASO) implements the activities in the Plan as well as the policies and directives issued by the PAMB. Together with the “Bantay Gubat” (personnel from the three municipalities with territorial jurisdiction over the nominated property), the PASO conducts regular monitoring and patrol activities over the core and buffer zones.

The municipalities overlapping the property have aligned their tourism and development plans to the Management Plan of the MHRWS, helping to ensure that the importance of protection of the property will be given the necessary recognition and consideration and that development will not hamper or detract from the conservation and protection of the biodiversity of the site. (WHC, 38COM Decision 2014).

Some concerns exist regarding sustainable staffing and funding for the property, however on balance it is well protected and managed.

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

**Mostly Effective**

The protection of the MHRWS is strengthened by the engagement with and involvement of local and indigenous communities living in its periphery (WHC, 38COM Decision 2014). The property is managed through good cooperative arrangements which should ensure outside threats do not impinge upon its OUV. This collaborative approach has initiated protection and preservation measures and has to date, for example, declined proposals
for mining in areas neighboring the property. (IUCN, 2012).

▶ **Best practice examples**

Very effective processes are in place to resolve land rights claims and issues. Effective legal, policy and institutional frameworks have been utilized to ensure the long term conservation and stewardship of the property.

**State and trend of values**

**Assessing the current state and trend of values**

**World Heritage values**

▶ **Critical habitat for a range of plant and animal species within the globally significant Philippine Biodiversity Hotspot**

***Good***

Trend: Data Deficient

The property is substantially well preserved and intact. It is in a relatively pristine condition and thus relatively free from current threats. The State Party has an approved Management Plan with an associated tourism plan which aims at securing the property’s values in anticipation of increasing tourism demand and use following inscription. The municipalities overlapping the property have aligned their tourism and development plans to the Management Plan which will add to the protection of the property. A monitoring and research programme on potential climate change impact has been developed and will be implemented. The cooperation of the NCIP to resolve any outstanding land claims continues with the aim of ensuring that any future use of the area does not compromise OUV. Furthermore the increase in the size of the property and buffer zone from that originally nominated has improved integrity and resilience (SP Referral Document, 2012)

Whilst it appears that the property’s values are stable it is difficult to accurately assess trends given the relative newness of this inscription. While the boundaries of the World Heritage property largely follow those of the Mount Hamiguitan Range Wildlife Sanctuary, given it's relatively small size
(ca. 16,000 ha), it will be important to ensure that other areas with adequate protection exist outside of the property in order to ensure effective conservation and population viability of those species with large range, particularly the Philippine Eagle, a territorial species with an estimated density of breeding adult pairs of one pair every 127-133 square km (Bueser et al., 2001). A recent study highlighted the underestimated diversity of herpetofauna of Mount Hamiguitan with 16 new species records of amphibians and reptiles (Susup et al., 2017). However, for many species their current conservation status remains unknown and further studies are required.

**Summary of the Values**

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

**Good**

**Trend: Data Deficient**

Recent studies and monitoring show that the property is preserved and intact. This assessment forms a baseline as the MHRWS is a relatively new inscription. There appear to be few current threats to the site excepting those which emanate from outside the property. In this regard the increased buffer zone will assist in combating threats and the effective government and community coordination should ensure that surrounding development and activities do not adversely affect the site. The site enjoys multiple levels of legal protection and good planning and programmes have been established to consider the potential impact of tourism and climate change on values.

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

**Good**

**Trend: Data Deficient**
Additional information

Benefits

Understanding Benefits

▶ Water provision (importance for water quantity and quality)

Watersheds of important rivers and creeks are found in MHRWS. Bitaugan, Mabua, Dumagooc/Timbo, Tibanban drain into the Davao Gulf, whilst the Jerico River drains into Pujada Bay. The Salingkomot River empties into the Pacific Ocean. The three rivers: Dumagooc, Tibanban and Bitaugan are the major sources of irrigation water for the lowlands of Governor Generoso and San Isidro (SP Nomination, 2014)

▶ Outdoor recreation and tourism

Tourism was heavily regulated in the years up until the inscription of the property and is currently restricted. However, the potential for increased tourism has been recognised. In order to establish responsible and sustainable tourism in the property a Visitor and Tourism Management Plan has been developed to ensure sustainable tourism development without negatively impacting the core values of the site. (SP Nomination, 2014)

▶ Sacred natural sites or landscapes, Cultural identity and sense of belonging

Ancestral Domain Claims (particularly from the Macambol-Mamali United Mandaya Council) include areas inside the Mt. Hamiguitan NR.

Summary of benefits

There are two main benefits arising from this site; local community engagement and flow on benefits from the development of ecotourism. Local managers continue to work collaboratively with local communities and
indigenous peoples on the management of the property and to ensure the equitable access and sharing of benefits, including those that may accrue from tourism. The Visitor and Tourism Plan developed by the State Party aims to deal with a potential increase in tourist numbers without impacting on the OUV of the property. (SP Nomination, 2014) (WHC 38COM Decision, 2014)

Projects

Compilation of active conservation projects

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<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<td>University of Southern Mindanao in collaboration with Mindanao State University-Iligan Institute of Technology, Southern Christian College, Cebu Biodiversity Conservation Foundation and the National Museum.</td>
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<td>Resource Valuation of Hamiguitan Mountain Range conducted in 2008 and 2009</td>
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<td>2</td>
<td>Central Mindanao University, Musuan, Bukidnon</td>
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<td>Diversity and status of Butterflies across vegetation types of Mt. Hamiguitan, Davao Oriental, Philippines</td>
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# REFERENCES

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<td>4</td>
<td>IUCN Evaluation (2012). Mount Hamiguitan Range Wildlife Sanctuary IUCN Gland, Switzerland</td>
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<td>10</td>
<td>World Heritage Committee (2014). Decision 38 COM 8B.8 Doha, Qatar</td>
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