Mount Hamiguitan Range Wildlife Sanctuary

2020 Conservation Outlook Assessment

SITE INFORMATION

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

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. © UNESCO

SUMMARY

2020 Conservation Outlook

GOOD

Finalised on 01 Dec 2020

Overall, the conservation Outlook for the Mount Hamiguitan Range Wildlife Sanctuary is good. Threats to the site exist, however, they remain potential more than current. Surrounding development and land use such as mining pose a potential threat to the World Heritage site, and emerging issues such as climate change and tourism growth have the potential to adversely impact the site’s fragile ecosystems. However, these issues are well addressed in the management of the site, including substantial efforts to establish protective legislature against mining associated threats within the site’s vicinity and comprehensive regulations and guidelines for sustainable tourism management. Additionally, the site is of an adequate size with a substantial buffer zone to ensure forest values and critical habitats are maintained, although species with large ranges of conservation significance, such as the Philippine eagle, require ongoing monitoring. The site 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 still needed to ensure adequate staffing capacity and sustained financial resourcing for the site.
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 World Heritage site 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, 2012). These ecosystem types house animal species representing all the animal groups found in the site as well as relatively recently discovered species. As a result of its semi-isolation and its varied habitat types growing in dissimilar soil and climate conditions, its biodiversity has shown a significantly high level of endemicity that has led scientists to believe that there may be more globally unique species waiting to be discovered in MHRWS (World Heritage Committee, 2014).

▶ Critically endangered trees and plants

Criterion:(x)

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 and plants such as the trees Shorea polysperma and Shorea astylosa, and the orchid Paphiopedilum adductum. Its diversity of plants and animals include globally threatened species as well as a large number of endemic species including those species that exist only in the Philippines, only in Mindanao and only in the World Heritage site. The fragile tropical “bonsai” forest that crowns the Mount Hamiguitan Range Wildlife Sanctuary epitomizes nature’s bid to survive in adverse conditions (World Heritage Committee, 2014).

▶ Large species diversity and high level of endemism

Criterion:(x)

The combination of terrestrial and aquatic ecosystems within the boundaries of the World Heritage site and the large number of species inhabiting each makes the Mount Hamiguitan Range Wildlife Sanctuary very rich in species diversity. It is 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) (World Heritage Committee, 2014). The site 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), and its high level of endemicity is well exemplified by the proportion of its amphibian (75% endemic) and reptile (84% endemic) species (World Heritage Committee, 2014).

Assessment information

Threats

Current Threats

Low Threat
The World Heritage site is substantially well preserved and intact. It is in a relatively pristine condition and thus relatively free from current threats. It has laws that prohibit incompatible activities such as logging, mining, exploration or surveying for energy resources inside Mount Hamiguitan Range Wildlife Sanctuary (MHRWS). The protection of the site is further strengthened by the engagement with and involvement of local and indigenous communities living in its periphery (World Heritage Committee, 2014). However, natural habitats especially in the southern portion of the site are highly vulnerable to conversion of land for agriculture.

**Housing/ Urban Areas**

*Data Deficient*

- **Inside site, localised (<5%)**
- **Outside site**

At the time of the initial nomination, the State Party estimated that less than 100 people lived within the Mt. Hamiguitan Range Wildlife Sanctuary (MHRWS) and only small numbers in the buffer zone (State Party of the Philippines, 2012). This number has grown, along with the expansion of the site, with the Protected Area Management Office recording a total of 658 households within the original and expanded World Heritage site through the Socio-Economic Assessment and Monitoring System (SEAMS). However, the livelihoods of these communities are well considered and integrated into the management of the site, such that the threat is likely to be minimised through effective initiatives and management interventions to provide benefits to the local community while, simultaneously, mitigate any potentially negative effects on the values of the site brought about by development (IUCN Consultation, 2020a).

**Tourism/ visitors/ recreation**

*Very Low Threat*

- **Inside site, localised (<5%)**

There are strict controls over access to the site. In pursuit of establishing sustainable financing mechanisms and promote sustainable livelihoods to the communities, the Protected Area Management Board (PAMB) decided to lift the closure of MHRWS to trekking and mountaineering in 2017 (IUCN Consultation, 2020a). However, the policy mitigates against potential associated threats through protocols and restrictions to maintain the site’s integrity and values. For example, visitor entry is limited to 30 heads per climb and only within the established trails and campsites as described in Volume 2 of the Nomination Dossier of MHRWS.

The management plan for the site is due for renewal in 2020. The new management plan will continue to align with tourism and development plans of the overlapping municipalities, helping to ensure the importance of the protection of the site (World Heritage Committee, 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 agreements have been set up between mining lease-holders and the mining company to cooperate with respect to protection of important habitats. In addition, some mining lease proposals have been refused at the local governmental level (IUCN, 2013). The PAMB is currently working on the legislation of the enlarged World Heritage site to be part of the entirety of original area (7,132.76 hectares) previously declared under Republic Act No. 9303. In doing so, securing the entire site from any prospective mining claims, including within the buffer zone (IUCN Consultation, 2020a).

**Logging/ Wood Harvesting**

*Low Threat*

- **Inside site, extent of threat not known**
- **Outside site**

Threats in and around the World Heritage site include the illegal collection of wildlife and the illegal removal of timber and non-timber forest products. The protection of the site is strengthened by the engagement with and involvement of local and indigenous communities living in its periphery in the management of the site. These include successful sustainable development and rehabilitation activities, which are undertaken by the Philippine Department of Environment and Natural Resources (DENR) and
Crops

*(Conversion of land for agriculture in lowland areas and within the buffer zone)*

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 World Heritage site to resolve any outstanding land claims (World Heritage Committee, 2014). Although the northern part (or the original extent of the Wildlife Sanctuary) is relatively well protected and managed, as previously observed by Supsup et al. (2017), natural habitats in the extended southern portion of the site are highly vulnerable to conversion, which is potentially becoming a high threat.

Potential Threats

Two issues have been identified as the most significant potential threats to the site: 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 (World Heritage Committee, 2014).

The site 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, 2013). A Tourism Management plan has been developed to plan for the threat of increasing tourism (World Heritage Committee, 2014). Martial Law is no longer in force within Mindanao, and conflict is likely to have been alleviated at least in the short term without having had significant impacts on the World Heritage site. For now, this remains a potential threat, as it is difficult to predict how the situation might unfold under the post Martial law context.

Tourism/visitors/recreation

*(Potential impacts from increased visitation)*

The inscription of the site on the World Heritage list may result in pressure to provide access and an increase in visitation. Tourism related activities may directly impact on the site and resources within the park. Issues that may arise include pollution, waste management etc. (IUCN, 2013). Plans have been developed to address this.

Temperature extremes

*(Climate change)*

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 affect the site in the future (IUCN, 2013). 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 (State Party of the Philippines, 2012).

War, Civil Unrest/Military Exercises

*(Siege of Marawi city and martial law in Mindanao)*

The conflict, which arose around Marawi City and subsequent enforcement of Martial law in Mindanao, carried the potential for rebel forces or terrorist groups or individuals to use the Wildlife Sanctuary...
as a retreat area along with other disturbances associated with conflict zones. However, there are no existing data to support its potential impact on the site (IUCN Consultation, 2020b). Martial law has now been withdrawn from the island, alleviating this particular threat in the immediate term. However, it is important to track the ongoing situation as the post-Martial Law period may bring new challenges to the site.

Overall assessment of threats

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 World Heritage site. Overlapping land claims have been satisfactorily resolved and mining threats sit outside of the site. MHRWS is thus relatively free from current threats, although still vulnerable to conversion of land for agriculture. The potential risks from climate change and increasing tourism use are being addressed through effective plans with respect to monitoring and corresponding management. Martial Law is no longer in force within Mindanao, and conflict is likely to have been alleviated at least in the short term without having had significant impacts on the World Heritage site. However, it is difficult to predict how the situation might unfold under the post Martial law context.

Protection and management

Assessing Protection and Management

Management system

The World Heritage site 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, 2014). The Protected Area Management Plan was due for update in 2020 under a supplemental budget provided by the Department of Environment and Natural Resources (DENR), which includes an expanded range to cover the entire World Heritage site, as opposed to the original management plan submitted to UNESCO upon inscription, which covered only the original site (IUCN Consultation, 2020a).

Effectiveness of management system

The World Heritage site 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 DENR assigned as its administrator (IUCN, 2012). The Protected Area Management Board (PAMB) oversees protection and management of the site according to the management plan, which was renewed in 2020 (IUCN Consultation, 2020a). Prior to its renewal, in 2018, the PAMB carried out a Management Effectiveness Assessment (METT) for the site. The assessment found the management to be 75% effective, which represented a 7% increase from the 2014 assessment, which was carried out at around the same time as its inscription on the World Heritage list. According to the assessment, staffing (permanent staff and capacity development), communication, education and public awareness (CEPA), infrastructure/ facilities, sustainable financing, participatory and comprehensive management planning and decision-making, and research studies that contribute to decision-making were areas of potential improvement (IUCN Consultation, 2020a). It was also noted that threats related to agriculture and utilization of non-timber forest products must be addressed by the management (IUCN Consultation, 2020a).

Boundaries

The World Heritage site totals an area of 16,923 ha with a buffer zone of 9,729 ha. The boundaries of the site 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 Mount Hamiguitan Range Wildlife Sanctuary (MHRWS)(IUCN, 2012; World Heritage Committee, 2014). While the boundaries of the site largely follow those of the MHRWS, given its relatively small size, it will be important to ensure that other areas with adequate protection exist beyond the site in order to ensure effective conservation of those species with large range, particularly the Philippine Eagle (IUCN Consultation, 2017).

Integration into regional and national planning systems  Mostly Effective

The World Heritage site straddles two municipalities and one city: San Isidro Municipality, Governor Generoso Municipality and the City of Mati, in the Province of Davao Oriental (World Heritage Committee, 2014). MHRWS is a component of the Philippines’ National Integrated Protected Areas System (NIPAS). The laws defining and affecting the site provide for a complementary and generally harmonized level of protection of the site. The laws control development within the boundaries of the site and are consistent in their objectives to protect the site’s key values. 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; World Heritage Committee, 2014).

Relationships with local people  Highly Effective

Impressive levels of local community and NGO involvement are evident in the World Heritage site, most notably in the Municipality of San Isidro (IUCN, 2013). 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 World Heritage site and to ensure the equitable access and sharing of benefits, including those that may accrue from tourism (World Heritage Committee, 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 MHRWS will contribute to the protection of the mountain (State Party of the Philippines, 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 World Heritage site and guide management. Apart from delineating the boundaries of the site, these laws prohibit incompatible activities such as logging, mining, exploration or surveying for energy resources inside the site. Responsibility for enforcement is shared by both the national and local government agencies in partnership with other stakeholders (World Heritage Committee, 2014). Progress has been made towards legislation, which would deem mining illegal within the site and its buffer zone. The Regional Development Council of the National Economic Development Authority of Region XI has been coordinating with the legislative branch of the national government to facilitate the law-making process while the PAMB is administering the compliance of requirements as prescribed by the law. The full legislation of the enlarged site will ultimately secure it from any prospective mining claims, even in the buffer zone (IUCN Consultation, 2020a).

Law enforcement  Some Concern

Law enforcement is carried out primarily by the Protected Area Management Office (PAMO), with the support of The Department of Environment and Natural Resources (DENR) through its Community Environment and Natural Resources Offices and Local Government. Law enforcement activities include
patrolling and monitoring inside the World Heritage site by Bantay Gubat and Park Rangers using smartphone technology to track instances of breaches. The DENR and the PAMO have been effecting paralegal training for the Bantay Gubat or Park Ranger and other volunteers to capacitate them on law enforcement activities. Camera traps installed by PAMO at strategic locations in the park also detect human activity inside the boundaries to monitor any potential breaches of law or park protocol. However, there is little data to confirm the efficacy of these measures and reports of limited staff, support and capacity to implement and fully realize the programs outlined in the management plan (IUCN Consultation, 2020b).

Implementation of Committee decisions and recommendations

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 (World Heritage Committee, 2014).

Sustainable use

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 (State Party of the Philippines, 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.

Sustainable finance

Despite recent increases in staffing and resources and an obvious commitment from Provincial authorities to the management of the site's 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, 2013). Recently, tourism has been opened up within the site to provide an additional source of income for the park management. Other avenues for generating income including payments for ecosystem services, an adopt-a-wildlife species project, and public-private partnership, among others have also been investigated (IUCN Consultation, 2020a). However, there is no evidence that these have been implemented to date.

Staff capacity, training, and development

Staff of the protected area have undergone numerous training and development courses since the inscription of the site across a wide range of issues related to the management of the site (IUCN Consultation, 2020a). However, staff capacity was also assessed in the most recent management effectiveness assessment and identified as an area for improvement (IUCN Consultation, 2020a). Staff capacity is an essential component of site protection and management. Although a couple of personnel are currently conducting monitoring and patrolling activities in the site, measured impact/effectiveness of it in overall management remains unknown. Programs outlined in the management plan of the site are well crafted, however, with limited staff, support and capacity, its implementation cannot be fully realized (IUCN Consultation, 2020b).

Education and interpretation programs

As visitation to the World Heritage site is strictly controlled, with the carrying capacity for visitation limited, interpretation and education is carried out mainly through the Mt. Hamiguitan World Heritage Park, established by the Provincial Government of Davao Oriental in the Municipality of San Isidro. The park serves as an interpretation site for MHRWS and handles majority of visitors of Mount Hamiguitan for a day tour learning activity.

The Protected Area Management Office, in collaboration with the Local Government Units, Academic Institutions and Non-Government Organizations, has been regularly implementing Communication, Education and Public Awareness (CEPA) campaign programs in MHRWS. To this end, a CEPA Plan is due
to be formulated in order to formally integrate education and interpretation into the overall management of the site (IUCN Consultation, 2020a).

**Tourism and visitation management**  
Highly Effective

Tourism and visitation to the World Heritage site has increased in the past few years, having been previously closed to public visitation pending completion of a trail management plan. The “Guidelines for Trekking, Mountaineering and Other Activities in MHRWS” has now been formulated, and visitation is now permitted within the site, although strictly following the protocols set out in the guidelines. The Guidelines set out the regulations in order to maintain the integrity of the site whilst providing opportunities for the local communities to sustainably earn and continue to steward the MHRWS simultaneously. 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 site on the World Heritage list (World Heritage Committee, 2014). Overall, 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 Outstanding Universal Value (OUV) in the face of rising tourism use (IUCN, 2014).

**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 (State Party of the Philippines, 2014; World Heritage Committee, 2014). The MHRWS Monitoring & Assessment Programme for Climate Change Adaptation aims to better understand the impacts of climate change on the site’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 (World Heritage Committee, 2014). There is a high level of academic interest in the biodiversity contained within the site, as evidenced by recent inventory publications such as Amoroso et al., 2018; General & Buenavente, 2017; Supsup et al., 2017 and Vidal et al., 2018, however, it is unclear the extent to which this data is integrated into the monitoring activities of the management.

**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 (Bueser et al., 2001; IUCN, 2012; State Party of the Philippines, 2014). There is also ongoing research related the biodiversity values for which the site is listed, including inventories of a number of different taxa found in the site (Amoroso et al., 2018; General & Buenavente, 2017; Supsup et al., 2017 and Vidal et al., 2018).

**Overall assessment of protection and management**  
Mostly Effective

The Mount Hamiguitan Protected Area Management Board (PAMB) oversees protection and management of the World Heritage site in accordance with the updated 2020 Mount Hamiguitan Range Wildlife Sanctuary Management Plan. The Protected Area Management Office 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 site), the PAMO conducts regular monitoring and patrol activities over the core and buffer zones. Previous concerns around sustainable staffing and funding for the site were addressed to some extent by the Expanded National Integrated Protected Area System and associated amendments to national legislation, however, remains an issue of some concern according to the most recent management effectiveness assessment. The municipalities overlapping the site have aligned their tourism and
development plans to the Management Plan of the MHRWS, helping to ensure that the importance of protection of the site will be given the necessary recognition and consideration and that development will not detract from the conservation and protection of the site's biodiversity (World Heritage Committee, 2014). This is especially significant in light of the recent policy to allow increased visitation within the boundaries of the site. The new Protected Area Management Plan of MHRWS will ensure the integration or mainstreaming and harmonization of all plans and programs of the local government units and other agencies with those of the World Heritage site.

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

  The protection of the MHRWS is strengthened by the engagement with and involvement of local and indigenous communities living in its periphery (World Heritage Committee, 2014). The World Heritage site is managed through good cooperative arrangements, which should ensure outside threats do not impinge upon its Outstanding Universal Value (OUV). This collaborative approach has initiated protection and preservation measures and has to date, for example, declined proposals for mining in areas neighboring the site (IUCN, 2012). The recent work carried out to expand protective legislature against threats from mining in the periphery of the site (IUCN Consultation, 2020a) is also likely to enhance the conservation of the site's OUV in the long term. The recent lifting of martial law, in place on Mindanao between May 23, 2017 and 31 December, 2019, could have potential impacts on the OUV of the site, however the precise implications of this are as yet uncertain.

- **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 World Heritage site.

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**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**

  Mount Hamiguitan Range Wildlife Sanctuary (MHRWS) remains a critical habitat for a number of species of elevated conservation interest as well as those endemic to the site, the island and the Philippines. The complete, substantially intact and highly diverse mountain ecosystem and varied habitats within the globally significant biogeographic region of the Philippines represented within the site remain in good condition. However, greater baseline data and monitoring is required in order to establish trends in this value.

- **Critically endangered trees and plants**

  The MHRWS continues to provide a critical sanctuary to a host of globally threatened and endemic species of flora, of which numerous are found nowhere else except Mount Hamiguitan. These include critically endangered trees and plants such as Shorea polysperma and Shorea astylosa, and the orchid Paphiopedilum adductum. Overall, the integrity of the forest ecosystem for which the site is inscribed and which contributes significantly to the status of this value, is good. However, further understanding and baseline species data is required to establish comprehensive community dynamics and determine
any future trends.

► Large species diversity and high level of endemism  

Good

Trend: Data Deficient

The site continues to harbour a large diversity of plants and animals including large numbers of endemic species, such that the site represents a significant endemism hotspot containing species that exist only in the Philippines, only in Mindanao and only in the World Heritage site. The fragile tropical “bonsai” forest that crowns the Mount Hamiguitan Range Wildlife Sanctuary epitomizes this particular value, and is in overall good condition. However, as with the other values of the site, data is currently lacking to establish any coherent trends in status.

Summary of the Values

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

Good

Trend: Data Deficient

The values for which Mount Hamiguitan Range Wildlife Sanctuary is inscribe relate to the biodiversity contained within the World Heritage site. Studies and monitoring show that the site is preserved and intact, with recent studies continuing to advance the understanding of the biodiversity of the site. There appear to be few current threats to the site excepting those which emanate from outside the site. 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 the site's values. Although these forest ecosystems remain relatively intact, and despite a relatively strong legacy of study and monitoring, baseline data for biodiversity is still being established. Therefore, trends are unable to be assessed accurately and are 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 (State Party of the Philippines, 2014).

► Outdoor recreation and tourism

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

► Direct employment

The State Party has and continues to work collaboratively with local communities and indigenous peoples on the management of the site and to ensure the equitable access and sharing of benefits,
including those that may accrue from tourism. An example of this is the Buntay Gumbat system of Community forest guards, however, there is potential to create additional income that could be used to feed back into growing community and NGO conservation actions (IUCN, 2012, 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 site 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 site (State Party of the Philippines, 2014; State Party of the Philippines, 2014).

Projects

Compilation of active conservation projects

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<th>Organization</th>
<th>Brief description of Active Projects</th>
<th>Web site</th>
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<td>1</td>
<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>
<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>
<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>6</td>
<td>IUCN Consultation (2020a). IUCN Confidential Consultation- Mount Hamiguitan Range Wildlife Sanctuary, the Philippines.</td>
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<td>7</td>
<td>IUCN Consultation (2020b). IUCN Confidential Consultation- Mount Hamiguitan Range Wildlife Sanctuary, the Philippines.</td>
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