IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 09 November 2017

Please note: this is an archived Conservation Outlook Assessment for Puerto-Princesa Subterranean River National Park. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Puerto-Princesa Subterranean River National Park

SITE INFORMATION

Country:
Philippines
Inscribed in: 1999
Criteria:
(vii) (x)

Site description:
This park features a spectacular limestone karst landscape with an underground river. One of the river's distinguishing features is that it emerges directly into the sea, and its lower portion is subject to tidal influences. The area also represents a significant habitat for biodiversity conservation. The site contains a full 'mountain-to-sea' ecosystem and has some of the most important forests in Asia. © UNESCO

SUMMARY

2017 Conservation Outlook

Good with some concerns

The spectacular cave system of the site and the natural phenomena of the interface between the sea and the underground river are well preserved although experiencing increasing impacts from the increase in visitors and tourism developments. Some degradation of the site's biodiversity values by exploitation by the local community is recognized but the extent of the impacts of these threats is unknown given the lack of monitoring data and research. The protection and effective management of the property is hampered by a complex legal framework and some confusion as to what is actually the World Heritage property, and the donation of land areas within its boundaries to accommodate the residents. Resolution of the zoning of the property as well as ongoing land claims and control of tourism development are all key to ensure effective management and planning in the future.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

The current condition of the 'outstanding natural phenomena' including the underground river and the karst landscape, remains excellent and overall the trend for a number of the values remains stable despite the threats faced by the site, specifically those from increasing visitation. However, the biodiversity values of the property are under increasing threat as a result of the impacts resulting from increasing tourism and visitation alongside an expanding local population, which is gradually eroding the integrity of the habitats and the biodiversity they support within and around the property.

Overall THREATS

High Threat

Assessing the threats to the World Heritage property in the past has been difficult given the confusion as to what exactly constitutes the World Heritage property and particularly in regards to its boundaries and those of the buffer zone of Puerto Princesa Subterranean River National Park. Protection of the entire watershed of the underground river is key to protecting water quality and quantity and ensuring the long-term viability of the Outstanding Universal Value of the site. The threats to the site are significant in that its integrity is dependent upon activities within the catchment but there is no effective control of such activities, many of which are not consistent with conservation of biodiversity values and are causing measurable damage. Of particular concern are serious issues with land claims and illegal land sales, exasperated by the increasing levels of visitation. In addition there are increasing reports of threats to the biodiversity of the site from illegal wildlife trade. A lack of baseline data on species presence and abundance hampers efforts to monitor the impact from such threats.

Overall PROTECTION and MANAGEMENT

Some Concern

The protection and effective management of the property is hampered by a complex legal framework and management arrangement, along side confusion as to what is actually the World Heritage property and what the component zones within its boundaries are. This leads to a lack of clarity regarding which activities are permitted inside the property and where they are permitted in regards to core habitat for biodiversity and subsequently hampers management efforts.

In light of the fact that the majority of pressures on the property originate from tourism activities in key areas and from developed areas within and adjacent to its current boundaries, and considering the unfavourable socio-economic status of many communities both occupying and surrounding the property, the development of a management zoning plan is essential to effective protection and management of the property. Core areas of habitat to maintain the biodiversity within the site need to be identified and provided with increased

levels of protection, while ensuring that the entire property is protected against undue developments within and adjacent to its boundaries. In the absence of such information and plans, effective protection and management of the property will remain challenging.
This is also important in light of the ongoing ancestral domain land claims, which overlap with the boundaries of the site. The lack of a detailed and up to date management plan that covers tourism management also complicates the protection and management of the property.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Globally significant habitat for biodiversity conservation**
Criterion:(x)

The property includes a full mountain-to-sea ecosystem, protecting the most significant forest area within the Palawan Biogeographic Province. It includes eight intact forest formations: forest on ultramafic soil, forest on limestone soil, montane forest, freshwater swamp forest, lowland evergreen tropical rainforest, riverine forest, beach forest, and mangrove forest (SoOUV, 2012).

▶ **High level of biodiversity**
Criterion:(x)

The property contains outstanding biodiversity, with the Palawan Moist Forest recognized by the WWF’s Global 200 Report as containing the richest tree flora, with high levels of regional and local endemism, and as being the largest and most valuable limestone forest in Asia (SoOUV, 2012). The natural forest is dominated by Dipterocarpus grandiflora (apitong), Intsia bijuga (ipil), and other hardwood species. The extensive rainforest is the habitat for a diverse range of endemic and endangered species of flora and fauna with the property home to 165 bird species, 30 mammal species, 19 reptile species, 10 amphibian species and over 800 plant species. Mammal species found within the property include the Palawan binturong, Palawan porcupine, Palawan stink badger, Palawan tree shrew, Palawan pangolin, wild pigs, flying squirrels, and eight species of bats. Dugongs have also been recorded in the marine component of the property. Cave inhabiting reptiles,

birds and mammals are found within the extensive cave system formed by the underground river. The reptiles present include snakes, monitor lizards, Philippine crocodiles, and sea turtles (IUCN, 1999).

► Rare and threatened birds.

Criterion:(x)

The property is home to 165 bird species, including a number of rare and threatened endemic species such as the Philippine cockatoo Cacatua haemeturopygia, White bellied sea eagle Haliaeetus leucogaster, Gray imperial pigeon Ducula piceringii and the Blue-naped parrot Tangynathis lucionensis (IUCN, 2015). The Palawan Peacock Pheasant has also been recorded in this site and is recognized as an internationally threatened species (IUCN, 1999).

► Spectacular landscape

Criterion:(vii)

Puerto-Princesa Subterranean River National Park includes a variety of landforms, the most impressive of which is the karst mountain landscape of the Saint Paul Mountain Range. The topography varies from flat plains to rolling hinterlands and hills to mountain peaks. Much of the property comprises sharp, karst limestone ridges. The limestone mountains have extensive karst features, both surface karst (pinnacles, shafts, dolines and limestone cliffs) in addition to an extensive underground river system (IUCN, 1999; SoOUV, 2012).

► Underground river

Criterion:(vii)

The spectacular karst landscape contains an 8.2km long subterranean river that flows directly to the sea, which introduces a tidal influence to the lower half of the river. The cave system through which the river flows contains dramatic speleothems and several large chambers of as much as 120m wide and 60m high. Its accessibility and navigability up to 4.5km inland allows it to be experienced by the general public on a river cruise unequalled by similar experiences elsewhere in the world (SoOUV, 2012).

Assessment information

Threats

Current Threats

High Threat

The threats to the site are significant in that its ongoing protection and integrity is dependent upon activities that occur anywhere within the catchment area of the subterranean river and for many of the identified current threats there is no effective control of such activities. Many of the activities undertaken within the catchment are also inconsistent with conservation of biodiversity values and are causing measurable damage. In particular this includes changes in land use including tourism development. Related to these changes are the ongoing issues with land claims and illegal land sales and development. The dramatic increase in visitation over recent years is also having significant impacts both within the boundaries of the property and also in adjacent areas and close monitoring is required to see whether the current management response is sufficient to cope with the levels of increasing visitation. Assessing and indeed effectively addressing the threats to the World Heritage property is difficult as the management plan is yet to be updated including the recommended zoning of the property and this creates confusion as to what exactly constitutes the World Heritage property, which is key for protecting water quality and quantity and ensuring the long-term viability of the Outstanding Universal Value of the site.
Progress has been made in regards to a number of the identified threats, including reports of illegal logging, assessment of Protected Area Occupants and Carrying Capacity. However, the issue of housing and resort developments within the boundaries and encroachment into forest areas remains and while it is not viewed as a significant threat to the integrity of the property, it needs increased management attention so as to avoid this becoming a significant threat.

► Tourism/ visitors/ recreation

High Threat
Inside site, localised(<5%)
Outside site

The dramatic increase in visitation since the site was declared one of the “7 New Wonders of Nature” has increased the impact on and threat to the property and its values from increased tourism numbers. It has also lead to an increase in development related to tourism both within and adjacent to the property. The management response to this increase has been insufficient; however, the situation seems to have improved slightly with a new park administration in 2013. Despite these improvements illegal developments appear to be continuing.

► Logging/ Wood Harvesting

Low Threat
Inside site, scattered(5-15%)
Outside site

Logging, road widening and conversion to agricultural land appear to be the main causes of deforestation with additional impacts from illegal developments for tourism (IUCN, 2015).
Reports of illegal logging and commercial plantations inside the property appear to be limited to agricultural activities of resident indigenous peoples and developments outside the boundaries of the property respectively. These issues do not pose a significant threat to either the superlative beauty of the property or its biodiversity values but require effective management to ensure the impact and threat posed from these issues do not increase.

► Tourism/ visitors/ recreation

High Threat
Inside site, scattered(5-15%)
Outside site

The tourism management system in place for the property at the time of its inscription and subsequent declaration as one of the “New 7 Wonders of Nature” did not have the capacity to accommodate the increasing influx of tourists resulting from these declarations and in particular the latter. The current system remains unable to deal with the increasing number of tourists

and in particular their concentration of visits in the morning for short periods of time.
No integrated management plan for tourism appears to have been developed for the property, despite significant and annual increases in tourist numbers, which also appear to have led to an increase in general traffic on the one road that provides access to the main tourism area.
The previous allowable number of guests was set at 900 per day as a maximum. This was subsequently increased to a maximum of 1200 visitors per day, which is below the recommended number from a study of the Tourism Carrying Capacity of the PPSRNP (1,400 as a maximum). However, this study fails to accommodate for the concentration of tourist visits in the morning to enable an early start to the tour of the underground river cave system.

► Hunting (commercial/subsistence), Poaching

Low Threat
Inside site, scattered(5-15%)
Outside site

Illegal wildlife trade has been noted as a relatively recently emerging threat to the site and its biodiversity and is a general issue and threat across the island of Palawan. While it is noted to have a significant impact on species such as the Philippine Cockatoo and increasingly the Philippine Pangolin (Manis culionensis) found on the island, there are few reports indicating it is a significant issue within the property. Despite the lack of reports of illegal wildlife trade impacting within the property there is increasing concern for a number of species found on Palawan including the Palawan Forest Turtle (Siebenrockiella leytensis), which is found within the property, after an increase in the number of seizures involving this critically endangered species.

► Water Pollution, Household Sewage/ Urban Waste Water, Agricultural effluents

Low Threat
Inside site, localised(<5%)

Reports continue to identify the threat of river pollution due to both legal and illegal activities in the catchment of the underground river. These reports indicate a need for the issue to be dealt with in the updated management

plan, a need to provide regular community awareness campaigns to ensure natural values of the property are conserved and a need to establish an integrated land use plan to ensure long term conservation of the natural values of the property, (UNEP-WCMC, 2011), but none of these appear to be happening despite improved management.

▶ **Forestry/ Wood production, Crops, Livestock Farming / Grazing**

Low Threat
Inside site, scattered(5-15%)
Outside site

In 1999 the identified threats to the property's biodiversity included immigration, unregulated building, tourism development, piecemeal forest clearance for agriculture and other uses, erosion and consequent siltation, and pollution from various sources including agro-chemicals and sewage. (PPMP, 1999). Despite the best efforts of management little had changed in 2012 as illegal logging, illegal quarrying, slash and burn agriculture, conversion of forest to agricultural lands and road widening were all noted as causing serious damage to the biodiversity values of the property (PPGEF, 2012). The new park administration, which took up office in 2013, has been implementing a number of measures to combat illegal hunting and wildlife trade (SOC, 2014; SOC, 2015). In response to serious issues with land claims and illegal land sales and development, a new cadastral survey was initiated, and a Survey and Registration of Protected Area Occupants (SRPAO) was conducted in April 2014 (SOC, 2014; IUCN, 2015, SOC 2015).
There is an ongoing issue of land tenure, use and sales resulting from the long history of indigenous peoples within the property and the process of Certificates of Ancestral Domain Claims regarding the protected area occupants and the local communities that occupied the area prior to its designation as a national park and inscription on the World Heritage list.

Potential Threats

Low Threat

The recent and ongoing dramatic increase in tourism and visitation to the site is already noticeable in regards to the direct and indirect impacts from high levels of tourism. Management of these growing levels of visitation has resulted in some improvements but the proposed development of a new wharf

and the lack of a detailed Environmental Impact Assessment along with the yet to be finalised updated management plan, including a detailed tourism plan, means the potential for direct and indirect impacts form the growing number of tourists remains a key concern for the site. Current management efforts do not appear to be sufficient to mitigate the negative impacts of ever increasing visitation.

► Tourism/ visitors/ recreation

High Threat
Inside site, scattered(5-15%)
Outside site

The dramatic increase in visitation since the declaration of the site as one of the “7 New Wonders of Nature” is already noticeable and current management efforts might not be sufficient to mitigate the negative impacts of ever increasing visitation. Indirectly such increases are likely to lead to further uncontrolled development within the property as well as adjacent to its boundaries. In turn this will have impacts to water quality, deforestation, road traffic and a number of other potential impacts, which if not controlled could impact directly on the values of the property.

► Crops, Livestock Farming / Grazing

Low Threat
Outside site

Agricultural expansion is already occurring at the edge of the site, which effectively adds a buffer area to the property. With increasing population pressure in surrounding areas, agricultural expansion could become a more serious problem for the site if not correctly managed now. Land conversion for agricultural expansion may cause an increasing rate of forest and habitat loss, impacting on the biodiversity values while also affecting the spectacular landscape for which the site is known. It may also lead to increases in agro-chemical loadings into the catchment of the underground river ultimately impacting water quality.

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

The property includes land within the boundaries of three Barangays (local administrative units; Cabayugan, Marufinas, Tagabinet) within the City of Puerto Princesa (IUCN, 2015). The site and its surroundings are the ancestral lands of Batak and Tagbanua peoples (Mallari et al., 2013). Management of the Property recognizes the traditional rights and emerging economic opportunities for local communities. Relations with local residents have greatly improved with a more consultative style of management employed by park management, although more remains to be done. Management of the property includes a Protected Area Management Board (PAMB), which includes representatives from local communities, the tourism sector and other stakeholders. Despite these improvements there remain issues around clarification of land tenure including Certificate of Ancestral Domain Claims (CADC) that stem from issues originating from before inscription of the property. A Local Community Liason officer is employed as a member of the park staff to work with occupants within the boundaries of the property, to encourage alternative, sustainable livelihoods and support local communities. Local communities, both within the boundaries of the property and in surrounding areas are being increasingly involved in the protection of the property through outreach programmes that raise awareness of the threats to and values of the property.

► Legal framework

Mostly Effective

The site appears to have adequate legal protection in place. Presidential Proclamation No. 212, s. 1999 declared the National Park under the National Integrated Protected Area System Act of 1992 (NIPAS) to encompass the catchment area and maintain long-term conservation of the site. The legal owner of the property is the City Government of Puerto Princesa. Responsibility for the management and the protection of the property is provided at a local, or provincial, rather than a national level through a

Memorandum of Agreement (MoA) for Devolution that places local ownership of the property, and hence management responsibility, with the City Government of Puerto Princesa. While management responsibility is placed with the local authority the site is also covered by the NIPAS, providing National level legal protection of the property. While the NIPAS has not significantly changed since inscription of the property and the legal framework in general is considered adequate, inconsistencies and overlaps between the NIPAS Act and other related laws create confusion regarding the powers and responsibilities of particular institutions.

► Enforcement

Some Concern

The Protected Area Superintendent (PASu) appears to hold primary responsibility for implementation of the Management Plan for the property, along with other key responsibilities including enforcement of the management and legal framework. The property itself is home to a number of permanent residents and land use varies across the property dependant on land tenure. There have been numerous reports of illegal activities including resource extraction but it is difficult to confirm the extent of these activities given the lack of clarity of zones within the property and the areas of disputed land tenure. Poaching of wildlife has been identified by NGOs and project staff working in the area as a high threat to the wildlife and reports of poaching have been made by staff. The resources and capacity to effectively address this threat and provide the necessary enforcement actions are most likely lacking with the management agency reliant on project specific funding for training and support and staff efforts focused on tourism management.

► Integration into regional and national planning systems

Some Concern

Palawan is covered by an Integrated Conservation and Development Plan, which includes a Forestry Protection Programme, however, there is currently insufficient data available to comment on the effectiveness of this plan, its regional integration and the position of the property within this system. The property is largely managed at a provincial level by virtue of the Memorandum of Agreement for Devolution, between the City Government and the National Government, and so appears to be lacking in terms of

integration with national planning systems. The City Mayor has full responsibility over the property and all management decisions are made by the Mayor in consultation with the Protected Areas Management Board (PAMB). While this arrangement appears to have worked effectively to date there is some concern that changes in management perspectives may occur with changes in the holder of that Office. In addition the devolution to the local level may limit integration and oversight at a national level.

► Management system

Mostly Effective

The 15-member Protected Area Management Board (PAMB) includes representatives of national agencies, local communities, conservation NGOs and indigenous peoples' groups (Mallari et al., 2013). A new park administration took up office in 2013 and a new management plan is being developed for the property (SOC report, 2014; IUCN, 2015). This plan was not available in its final form at the time of the outlook assessment.

► Management effectiveness

Some Concern

A number of on going and emerging issues threatening the property remain unresolved to date. The new management plan being developed for the site is attempting to address a number of these including development of an updated Tourism Management Plan (SOC, 2015). Ineffective management is perhaps the most serious threat to the property. While there has been a clear and significant improvement in management of the property since Committee Decision 38 COM 7B.70, a lack of resources and an all be it necessary focus on management of tourists takes up the majority of the available but limited resources, rather than overall property management. Subsequently this means management effectiveness remains an issue for the site. Despite the focus of management on tourism, the ever-growing numbers of visitors to the site and the resulting infrastructure to accommodate them remain key management challenges.

► Implementation of Committee decisions and recommendations

Mostly Effective

Committee decisions so far have included 38 COM 7B.70, and 39 COM 7B.16.

These decisions have both been in relation to issues of concern raised in regards to current threats to the property, namely issues around tourism, boundaries and occupants within the site. The first of these, 38 COM 7B.70 also requested both an IUCN reactive monitoring mission and a State of Conservation report. Both of these requests as well as other specific actions included in Decision 38 COM 7B.70 were implemented. Actions outlined in 39 COM 7B.16, many of which resulted from the IUCN reactive monitoring mission appear to be ongoing but are difficult to assess at this time as the subsequent State of Conservation report is not due until December 2017. A number of key actions with the Committee decisions appear to remain outstanding including submission of the EIA on the development of the Sabang Wharf and clear maps of the zonation of the property. On the basis of the implementation of Committee Decision 38 COM 7B.70, this aspect is tentatively assessed as being mostly effective.

► Boundaries

Mostly Effective

The current demarcated boundaries of the World Heritage property, aligned with the GPS co-ordinates of the Presidential Proclamation No. 212, s. 1999 of 12 November 1999, includes the entire watershed of the subterranean River and are adequate to maintain the property's Outstanding Universal Value. The area demarcated results in a site of 21,826ha. Based on the history of confusion around the boundaries and a number of the current threats to the site, both Decision 38 COM 7B.70 and 39 COM 7B.16 recommended the development of a zonation plan to further clarify the components of the site within the boundaries, in particular those considered as a buffer zone by the management authority.

► Sustainable finance

Some Concern

Sustainable financing remains a key issue for the effective management of the property. A limited annual budget, determined solely by annual tourism numbers, means that despite increasing levels of tourism, annual budgets for management remain small and insufficient. The Park is fully self-sustaining at current income and staffing levels but this is far from certain with funding directly related to tourism numbers. Park authorities have insufficient human

and financial resources to effectively combat the issues impacting the property as well as managing the large number of tourists and the associated impact.

► Staff training and development

Some Concern

The previous management plan as well as other relevant documents submitted to the World Heritage Committee, notes that in the face of increasing visitor numbers more staff training in Park planning and management is required to ensure effective management of the property. However, the draft updated Management plan notes that there is currently no training program for staff apart from some training for cave guides. Unfortunately, the draft updated plan is incomplete and does not address training for staff in other areas beyond tourism and there is limited information available in this regard. The lack of training and development is further complicated by the contractual nature of staff appointments with no permanent positions and all staff on short term contracts.

► Sustainable use

Some Concern

The property is home to a number of occupants and residents who were present prior to the designation of the National Park and World Heritage property. Efforts appear to be ongoing in regards to a survey of all residents. The Forest within the buffer zone may be utilised for subsistence and livelihood purposes, however the level to which this is allowed and indeed monitored is unclear as is the zonation of the buffer zone. Threats from both legal and illegal resource extraction remain high throughout the forest, with potential impact on the Outstanding Universal Value of the site itself. It is currently not known the degree to which illegal extractive activities may be occurring within the site, and monitoring capacity and resources are not currently sufficient for fully effective monitoring of illegal activities such as illegal logging, slash and burn agriculture, conversion of forest to agriculture and other resource extraction. Increased monitoring capacity and resources are required if fully effective law enforcement is to take place to successfully manage the site.

► Education and interpretation programs

Some Concern

While the issues of education and interpretation of the site are addressed in the management plan there is no indication that any of the proposed actions have been implemented. The presence of a Community Liaison officer assists with awareness of the site and its values with local communities and residents and plans for development of the Sabang Wharf include detailed interpretation programs. However, current activities are restricted by budget and capacity and remain limited to short term projects and activities.

► Tourism and visitation management

Serious Concern

Tourism, identified as a potential threat, adversely impacting the natural values of the property, is being addressed through tourism management objectives set out in the Management Plan. But as tourist numbers continue to increase, more staff training in park planning and management is required to ensure effective management of tourism activities. The property’s tourism program aims to enhance visitor’s experience with nature while protecting the natural values. The threats posed by uncontrolled access from outside developments remain present and difficult to control despite limitation of the number of visitors per day. The tourism management system in place at the time of the property’s declaration as one of the “New 7 Wonders of Nature” did not have the capacity to accommodate the increasing influx of tourists resulting from that declaration and it remains unable to deal with the increasing number of tourists and in particular their concentration of visits in the morning. Tourism management requires improvement to avoid and mitigate negative impacts on the property. No integrated management plan for tourism appears to have been developed for the property, despite significant and annual increases in tourist numbers, which has also led to an increase in general traffic on the one road that provides access to the main tourism area. Tourism management is being included in the revised Management Plan, which was to be completed by December 2014 but appears to be ongoing in terms of being finalised.

► Monitoring

Some Concern

Some monitoring of visitor statistics is maintained, but not readily available, as is the quality of water in the river. According to the Palawan State of the Environment 2009 Updates, the water quality was classified as suitable for agricultural and industrial purposes. However, the most recent data on water quality monitoring is not available for assessment of the current health of the river. In addition monitoring of the biodiversity of the site is limited and only recently have ongoing monitoring programmes been established. This includes regular monitoring of the bat numbers within the underground river cave system, initiated after concerns about the impacts from the high number of tourist boats entering the cave system. Data is lacking in terms of monitoring of other species within the site.

► Research

Some Concern

Most available documents – particularly the management plan – acknowledge the importance of research but apart from the surveying of cave passages there is little evidence to indicate what if any detailed research is being undertaken. The addition of a resident park biologist and work to update the species list for the property are concrete indications of research and monitoring activities but there is limited data available regarding plans to continue such work on an annual basis or to conduct ongoing targeted research. The exception to this is the newly established regular monitoring of the bat species inhabiting the cave system.

Overall assessment of protection and management

Some Concern

The protection and effective management of the property is hampered by a complex legal framework and management arrangement, along side confusion as to what is actually the World Heritage property and what the component zones within its boundaries are. This leads to a lack of clarity regarding which activities are permitted inside the property and where they are permitted in regards to core habitat for biodiversity and subsequently hampers

management efforts.

In light of the fact that the majority of pressures on the property originate from tourism activities in key areas and from developed areas within and adjacent to its current boundaries, and considering the unfavourable socio-economic status of many communities both occupying and surrounding the property, the development of a management zoning plan is essential to effective protection and management of the property. Core areas of habitat to maintain the biodiversity within the site need to be identified and provided with increased levels of protection, while ensuring that the entire property is protected against undue developments within and adjacent to its boundaries. In the absence of such information and plans, effective protection and management of the property will remain challenging.
This is also important in light of the ongoing ancestral domain land claims, which overlap with the boundaries of the site. The lack of a detailed and up to date management plan that covers tourism management also complicates the protection and management of the property.

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

Some Concern

Protection and management of the site is provided at a local rather than a national level, through agreements that place legal ownership with the City Government of Puerto Princesa. The property is also covered by the National Integrated Protected Area System (NIPAS) Act of 1992, which provides legal protection for protected areas in the Philippines. This arrangement means that Management decisions for the property are made in consultation with the Protected Areas Management Board (PAMB) and the City Council and these decisions are made at the local level. While this arrangement provides for adequate legal protection, numerous challenges remain in regards to the effective implementation of protection and on the ground management of the property to address threats, particularly those from outside the site. While the boundaries of the property cover the entire watershed of the underground river, thus enabling protection of the water quality and quantity and ensuring the long-term viability of the outstanding natural values contained within the property this does not assist with efforts to address impacts from outside the site. Increasing levels of tourism development

adjacent to the Park boundaries are also starting to impact on the property and without a clear zonation of the site itself these are also starting to encroach on the core area of the national park.
While the legal framework is in place to provide the necessary protection to the property from threats within its boundaries, the effectiveness of implementation and the ability to protect it against threats from outside the property are considered to be inadequate, despite improvements in management effectiveness in recent years.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Globally significant habitat for biodiversity conservation**
High Concern
Trend:Deteriorating

There is evidence that biodiversity values are being impacted by increasing levels of tourism both within and around the property, illegal activities including land clearing and developments and inadequate protection. In 2012 a GEF project noted that ‘illegal logging, illegal quarrying, slash and burn agriculture, conversion of forest to agricultural lands and road widening are causing serious damage to the environment’ (GEF, 2012). These impacts have been reported from other sources and have recently also included illegal wildlife trafficking for high value species. However, little information is available on the actual state of critical habitats within the property making it difficult to assess the current situation.

▶ **High level of biodiversity**
Low Concern
Trend:Data Deficient

While significant progress has been made regarding a number of previously identified threats, a limited amount of data from monitoring in regards to specific species and biodiversity of the property is available and this makes it difficult to measure the impacts on the biodiversity values for which the

property was inscribed. A lack of connectivity between key habitat areas within the property has also been identified as a threat to the conservation of some species.

► Rare and threatened birds.

Low Concern
Trend:Data Deficient

As with the overall biodiversity values of the property there is limited data available to assess the current state and trend of the rate and threatened bird species recorded within the property. 165 bird species have been recorded in the site, including a number of rare and threatened endemic bird species including the Philippine cockatoo Cacatua haemeturopygia. This species is under significant threat from illegal wildlife trade but there is no data available in regards to its status in the property. The Palawan Peacock Pheasant has also been recorded in this site (recognized as an internationally threatened species).

► Spectacular landscape

Low Concern
Trend:Stable

The nature of the karst landscape that dominates the property provides spectacular landscapes and an impressive backdrop to the underground river. It encompasses a range of landscapes from with the topography varying from flat plains to rolling hinterlands and hills to mountain peaks. Much of the property comprises sharp, karst limestone ridges, which are unlikely to be diminished by visitation. However threats from land use change and developments have the potential to impact on the landscape, particularly through deforestation and the removal of limestone in areas adjacent to the boundaries. These issues and threats are worrisome but currently insufficiently to be considered a threat to this particular World Heritage value.

► Underground river

Good
Trend:Stable

The underground river flows directly to the sea through an underground

system that includes caves with chambers as much as 120m wide and 60m high. This provides opportunity for the general public to visit the caves on a river cruise unequalled by similar experiences elsewhere in the world and is a hardy resource unlikely to be diminished by visitor use even when such use is excessive in number. Issues of siltation and pollution of the underground river are worrisome but insufficiently so as to be seen as a threat to the World Heritage value at this time.

Summary of the Values

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

Low Concern

Trend: Deteriorating

The current condition of the ‘outstanding natural phenomena’ including the underground river and the karst landscape, remains excellent and overall the trend for a number of the values remains stable despite the threats faced by the site, specifically those from increasing visitation. However, the biodiversity values of the property are under increasing threat as a result of the impacts resulting from increasing tourism and visitation alongside an expanding local population, which is gradually eroding the integrity of the habitats and the biodiversity they support within and around the property.

Additional information

Benefits

Understanding Benefits

► **Importance for research, Contribution to education**

The site provides an outstanding opportunity for education and awareness for local, national and international communities in terms of its biodiversity as well as the underground river and karst landscape. It also provides an important site for research as it represents and includes one of the world’s

most impressive cave systems, featuring spectacular limestone karst landscapes, pristine natural beauty, and intact old-growth forests and distinctive wildlife. It includes a full mountain-to-sea ecosystem, protecting the most significant forest area within the Palawan Biogeographic Province and is home to a number of endemic species.

▶ **Collection of medicinal resources for local use, Outdoor recreation and tourism, Natural beauty and scenery**

The site offers tourism activities that are significant to local, regional and international communities. Tourism is increasing in the area with local and regional tourists contributing to this increase and provides an opportunity for recreation and time in nature.

In terms of this benefit over exploitation relates to over use as well as extraction of natural resources.

▶ **History and tradition, Cultural identity and sense of belonging**

The property is home to a number of local communities, many of which have inhabited the area for many generations. These communities were present prior to the designation of the National Park and World Heritage Property with numerous Ancestral Domain Claims covering areas of the property.

▶ **Carbon sequestration, Soil stabilisation, Coastal protection, Water provision (importance for water quantity and quality), Pollination**

The majority of the property is forest covered with the boundaries covering the entire catchment for the subterranean river. It includes a marine component with the property encompassing the coastal area and including a number of mangrove forested sections. A number of local communities live within the boundaries of the property with the intact forest providing a number of environmental services not only for these communities but the wider Palawan population.

▶ **Tourism-related income, Provision of jobs**

The number of visitors and tourism levels continues to increase for the property and with high numbers of visitors many of the services to support

them are provided by local communities both within the property and through tourism related activities adjacent to the area. Boat tours within the underground river cave system are provided by local community members and many of the jobs associated with the site provide employment opportunities. Visitors to the Underground river also visit other tourist destinations across Palawan having an impact to the economy beyond the immediate area of the property.

Summary of benefits

The benefits from the PPSRNP are largely in the conservation value of the ecosystem, including the extensive cave system and the unique biodiversity it contains. The forest that covers the catchment of the river provides habitat for a number of species of global conservation concern, as well as in mitigating accelerating climate change impacts through carbon storage, and protection of local infrastructure and populations from extreme weather events, the frequency of which may increase under climate change. There are also economic benefits in terms of job creation and tourism with the included marine area also potentially aiding in local fisheries.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Palawan Conservation Corps		Community Based Environmental Restoration and Conservation of Damaged Areas of Puerto Princesa Subterranean River National Park.

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