IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 02 October 2014

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

2014 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 a degree of overcrowding. However, some degradation of the site's biodiversity values by exploitation by the local community is recognized and is being addressed. The protection and effective management of the Property is hampered by a complex legal framework and confusion as to what is actually the World Heritage Property and what is the buffer zone. A monitoring mission to the site was requested by the World Heritage Committee in 2014 to resolve the issues relating to the site's boundaries which is an important step to ensure effective management and planning in the future.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

The condition of the 'outstanding natural phenomena' is excellent and the trend is stable despite the threat of siltation in the river and increasing visitation. Conversely the biodiversity values of the Property are threatened by insufficiency in size of the Property and an expanding local population which is gradually eroding the integrity of the habitats and the biodiversity they support within and around the park.

Overall THREATS

High Threat

Assessing the threats to the world heritage Property is difficult as there has been some confusion as to what exactly constitutes the World Heritage Property and particularly to whether the entire watershed of the underground river is contained within the property, which is key for 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 also serious issues with land claims and illegal land sales. There has also been a dramatic increase in visitation since the site was declared one of the “New Wonders of Nature” and close monitoring is required to see whether the current management response is sufficient to cope with the increasing visitation.

Overall PROTECTION and MANAGEMENT

Some Concern

The protection and effective management of the Property is hampered by a complex legal framework and confusion as to what is actually the World Heritage Property and what is the buffer zone. At its 38th Session in 2014 the World Heritage Committee has requested the State Party “to invite an IUCN reactive monitoring mission to the property, in order to support a comprehensive resolution of the issues relating to the boundary of the property and buffer zone” (Decision 38COM 7B.70).
In addition there is the issue of overlapping of the Property’s boundary with ancestral domain claim land which according to the 2007 Joint memorandum Circular will eventually revert to the indigenous claimants who from what can be inferred from the available publications are supportive of biodiversity conservation on the one hand but inappropriately using the Park natural resources to meet their basic needs on the other.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **A spectacular karst landscape with an underground river**
Criterion:(vii)

Puerto-Princesa Subterranean River National Park features a spectacular karst landscape with an underground river that flows directly to the sea which introduces a tidal influence to the lower half of the river. The cave 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)

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

The property contains globally significant habitat for biodiversity conservation. It includes a full mountain-to-sea ecosystem, protecting the most significant forest area within the Palawan Biogeographic Province. There are 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, included in the property. It contains outstanding biodiversity with the Palawan Moist Forest recognized by the WWF’s Global 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).

Assessment information

Threats

Current Threats

High Threat

Assessing the threats to the world heritage Property is difficult as there has been some confusion as to what exactly constitutes the World Heritage Property and particularly to whether the entire watershed of the underground river is contained within the property, which is key for 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 also serious issues with land claims and illegal land sales. There has also been a dramatic increase in visitation since the site was declared one of the “New Wonders of Nature” and close monitoring is required to see whether the current management response is sufficient to cope with the increasing visitation.

► Logging/ Wood Harvesting

High Threat
Inside site

Deforestation of at least 1490 ha occurred within the site between 2002 and 2007 which is a significantly large area compared to the overall size of the property (SOC report, 2014). However, a much larger area might have actually been deforested. Logging, road widening, conversion to agricultural land are the main causes of deforestation (IUCN Consultation, 2014).

► Logging/ Wood Harvesting, Crops, Commercial hunting

Very High Threat
Inside site
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)
In 2012, despite the best efforts of management little has changed as illegal logging, illegal quarrying, slash and burn agriculture, conversion of forest to agricultural lands and road widening are 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).
In response to serious issues with land claims and illegal sales, a new cadastral survey was initiated, and a Survey and Registration of Protected Areas Occupants (SRPAO) was conducted in April 2014 (SOC report, 2014).

► Water Pollution

High Threat
Inside site

Many reports since 2000 have identified the threat of river pollution due to both legal and illegal activities in the catchment of the underground river, 2/3rds of which lies outside the Park.

These various reports indicate :
- a need for the issue to be dealt with in a revised 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, (WCMC, 2011), but none of these seem to be happening.

► Tourism/ visitors/ recreation

High Threat
Inside site

There has been a dramatic increase in visitation since the site was declared one of the “7 New Wonders of Nature”. The management response to this increase was insufficient; however, the situation seems to have slightly improved since the new park administration took up office in 2013. The maximum number of allowable visits was set up at 900 per day (SOC report, 2014). The current number is reported to be 1400 visitors per day (IUCN Consultation, 2014).

Potential Threats

High Threat

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.

► Tourism/ visitors/ recreation

High Threat
Inside site

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Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

The site and its surroundings are the ancestral lands of Batak and Tagbanua

peoples (Mallari et al., 2013).
Management of the Property and its buffer zone 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 the current park management, but much remains to be done.

► Legal framework and enforcement

Some Concern

The National Integrated Protected Areas System (NIPAS) Act of 1992 (Legal framework, 2010) has undergone many changes since its enactment as have the pertinent issues concerning its implementation. The inconsistencies and overlaps between the NIPAS Act and other related laws create confusion regarding the powers and responsibilities of particular institutions.
What is lacking is a defined management plan with specific and measurable management objectives and clear and implementable management interventions (IUCN Consultation, 2014).

► Integration into regional and national planning systems

Serious Concern

While all of Palawan is covered by an Integrated Conservation and Development Plan which includes a Forestry Protection Programme under which many of the issues noted in the nomination document were to be addressed there is insufficient data available to comment on the effectiveness of such regional integration.

The Property is devoid of any integration with national planning systems by virtue of the Memorandum of Agreement for Devolution, between the City Government and the National Government.
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. (PPNom’n File, 1999)

► Management system

Some Concern

A 15-members Protected Area Management Board 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).

► Management effectiveness

Some Concern

A number of old and recently emerged issues threatening the property remain unresolved to date. However, a new management plan is being developed for the site which should include regulations for tourism development (SOC report, 2014).

► Implementation of Committee decisions and recommendations

Data Deficient

Data deficient

► Boundaries

Serious Concern

There has been some confusion with regard to what actually constitutes the World Heritage property and what is the buffer zone. At its 38th Session in 2014 the World Heritage Committee has requested the State Party "to invite an IUCN reactive monitoring mission to the property, in order to support a comprehensive resolution of the issues relating to the boundary of the property and buffer zone" (Decision 38COM 7B.70).

► Sustainable finance

Data Deficient

Data deficient

► Staff training and development

Some Concern

While the SoOUV notes that in the face of increasing visitor numbers more staff training in Park planning and management is required to ensure effective management of tourism activities and achieving the aim to enhance visitor's experience with nature, there is no data available to indicate that any real plans for training to be provided. (SoOUV, 2012)

► Sustainable use

Serious Concern

Delegates at the 1997 're-nomination forum and workshop- were informed that the environmental degradation due to misuse and abuse of the Parks resources was alarming (IUCN Eval'n, 1999) and in 2012 the Palawan Conservation Corp said in its GEF Project description that an increasing population has a demand for the Parks natural resources and that the illegal logging, illegal quarrying, slash and burn agriculture, conversion of forest to agricultural lands and road widening critically threatened the ecosystems of the Park. (PPGEF, 2012)

► 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.

► Tourism and interpretation

Some Concern

The increase in tourists numbers since the declaration of the site as one of "New Wonders of Nature" will require adequate management responses and enhancement of interpretation facilities and programmes.

► 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 yet complete. (PPRamsar, 2012)

▶ Research

Data Deficient

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 research is being undertaken.

Overall assessment of protection and management

Some Concern

The protection and effective management of the Property is hampered by a complex legal framework and confusion as to what is actually the World Heritage Property and what is the buffer zone. At its 38th Session in 2014 the World Heritage Committee has requested the State Party “to invite an IUCN reactive monitoring mission to the property, in order to support a comprehensive resolution of the issues relating to the boundary of the property and buffer zone” (Decision 38COM 7B.70).
In addition there is the issue of overlapping of the Property’s boundary with ancestral domain claim land which according to the 2007 Joint memorandum Circular will eventually revert to the indigenous claimants who from what can be inferred from the available publications are supportive of biodiversity conservation on the one hand but inappropriately using the Park natural resources to meet their basic needs on the other.

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

Serious Concern

The management plan for the Park, the IUCN evaluation report and other documents all clearly indicate that 5,753Ha was insufficient to provide long term viability of the areas biodiversity values and did not include the catchment of the underground river.

Other documents clearly indicate that various activities in the catchment are a threat to the river and to surface biodiversity values and that authorities had little chance of effectively controlling these activities. Therefore the effectiveness of protection against threats outside the Property would be considered to be inadequate.

However, the statement of outstanding universal value says that the 5,753ha encompasses the natural values of the Property and is of adequate size to protect all the various landforms and the estuarine ecosystem that conveys the Outstanding Universal Value of the Property. The boundaries of the Property cover the entire watershed of the underground river, thus protecting water quality and quantity and ensuring the long-term viability of the outstanding natural values contained within the Property.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **A spectacular karst landscape with an underground river**
Good
Trend:Stable

The karst landscape with an underground river flowing directly to the sea from a cave with chambers as much as 120m wide and 60m high provides opportunity for the general public to visit the caves on a river cruise unequalled by similar experiences elsewhere in the world is a hardy resource unlikely to be diminished by visitor use even when such use is excessive in number. The quality of experience may diminish but the resource itself will persist. The issue of siltation is worrisome but insufficiently so as to be seen as a threat to the world heritage value.

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

There is evidence that biodiversity values are being impacted by illegal

activities and inadequate protection. The relatively recent statement in the GEF Project Description tom the effect 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’ raises the trend to ‘high concern’ (GEF, 2012). However, no information is available on the actual state of critical habitats within the property.

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
Low Concern
Trend: Deteriorating

The condition of the ‘outstanding natural phenomena’ is excellent and the trend is stable despite the threat of siltation in the river and increasing visitation.
Conversely the biodiversity values of the Property are threatened by insufficiency in size of the Property and an expanding local population which is gradually eroding the integrity of the habitats and the biodiversity they support within and around the park.

Additional information

Key conservation issues

▶ **Protection of the caves**
Local

The values of the caves cannot be subservient to the economic opportunities they present. Behaviour management must be elevated to meet the basic guidelines for the management of show caves in a protected area particularly with regards to presentation of the sites World Heritage values.

▶ **Community support**
Local

While there is evidence of strong community support as expressed by the existence of the Palawan Conservation Corps and the GEF funded Community Based Environmental Restoration and Conservation of Damaged Areas of the Property there remains the issue of the overlap with the Ancestral Domain claim areas and the expanding population putting pressure on the Property's natural resources through activities in regard to those resources which are not compatible with conservation.

Benefits

Understanding Benefits

► Importance for research

The site provides an outstanding opportunity to educate the national and international community about the regional biodiversity

► Outdoor recreation and tourism

The site offers tourism activities which a significant to local and regional communities

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.

REFERENCES

№	References
1	City Of Puerto Princesa City Development Strategies Report 2009 (PPC Dev't. Strtgy, 2009)
2	Mallari et al., 2011. Population densities of understory birds across a habitat gradient in Palawan, Philippines: implications for conservation.
3	Mallari et al., 2013. Science-driven Management of Protected Areas: A Philippine Case Study.
4	Philippines Legal Framework for Protected Areas 2010 (Legal Framework, 2010)
5	Puerto Princesa GEF Project Description 2012 (PPGEF, 2012)
6	Puerto Princesa IUCN Evaluation Report 1999 (IUCN Eval'n, 1999)
7	Puerto Princesa Management Plan 1999 (PPMP, 1999)
8	Puerto Princesa Nomination File 1999 (PPNom'n File, 1999)
9	Puerto Princesa Ramsar Information Sheet 2012 (PPRamsar, 2012)
10	Puerto Princesa Statement of Outstanding Universal Value 2012 (SoOUV)
11	Puerto Princesa WCMC Datasheet 2011 (WCMC, 2011)