IUCN Conservation Outlook Assessment 2014 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Nanda Devi and Valley of Flowers National Parks. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Nanda Devi and Valley of Flowers National Parks

SITE INFORMATION

Country:
India
Inscribed in: 1988
Criteria:
(vii) (x)

Site description:
Nestled high in West Himalaya, India’s Valley of Flowers National Park is renowned for its meadows of endemic alpine flowers and outstanding natural beauty. This richly diverse area is also home to rare and endangered animals, including the Asiatic black bear, snow leopard, brown bear and blue sheep. The gentle landscape of the Valley of Flowers National Park complements the rugged mountain wilderness of Nanda Devi National Park. Together they encompass a unique transition zone between the mountain ranges of the Zanskar and Great Himalaya, praised by mountaineers and botanists for over a century and in Hindu mythology for much longer. © UNESCO

SUMMARY

2014 Conservation Outlook

Good with some concerns

The area has been under effective management for over three decades now. However, continued vigil is required as the area is large and terrain is difficult. The human resources for management of the site need to be augmented. The site holds significant populations of species of global conservation significance and their current state is good. The status of flora, fauna and their habitats monitored periodically through scientific expeditions indicates improvement in the population status of key wild animal and plant species. The level of current threats to the site is low; however, development of hydroelectric projects in the vicinity or in the buffer zone represents a high potential threat. Particularly, the cumulative impacts of various projects are of high concern and need to be considered during planning and approval stages of each project.

Current state and trend of VALUES

Good
Trend: Stable

The natural beauty and wilderness values of the site remain well preserved, largely thanks to its inaccessibility and limited use. Results of monitoring surveys indicate the status of flora, fauna and their habitats inside both Nanda Devi and Valley of Flowers National Parks is good.

Overall THREATS

High Threat

The existing level of current threats to the site is low. The main current conservation issues include solid waste associated with high visitors’ numbers in the buffer zone of the Valley of Flowers National Park. Development of hydropower projects in the buffer zone of the site, however, remains a high potential threat n. The cumulative impacts of various hydroelectric projects in the

area are of particular concern and need to be considered during planning and appraisal stages of each project.

Overall PROTECTION and MANAGEMENT

Mostly Effective

The protection and management status is presently effective. However, continued vigil is required as the area is large and terrain is difficult. The human resources for management of the site need to be augmented to ensure long-term protection of the site.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Natural beauty and aesthetic values**
Criterion:(vii)

The Nanda Devi west peak (7,817 m) that is revered as a sacred mountain by the local people and its surrounding group of mountains which is now the Nanda Devi National Park are well recognised by mountaineers and explorers world over for their exceptional natural beauty due to the several high mountain peaks, glaciers, moraines, and alpine meadows. This spectacular landscape is complemented by the Valley of Flowers, an outstandingly beautiful high-altitude Himalayan valley. that has been acknowledged as such by renowned explorers, mountaineers and botanists in literature for over a century and in Hindu mythology for much longer. Its ‘gentle’ landscape, breath-takingly beautiful meadows of alpine flowers and ease of access complement the rugged, mountain wilderness for which the inner basin of Nanda Devi National Park is renowned (SoOUV, 2012).

▶ **Important site for in-situ conservation of biological diversity**
Criterion:(x)

The Nanda Devi National Park comprises of the Rishi Ganga Basin that has a rim of high Himalayan peaks and wide range of high altitude habitats from temperate forests to glacial moraines. This park holds significant populations of flora and fauna, many of which have global conservation significance such as the Snow leopard, mountain ungulates and galliformes. The abundance estimates for wild ungulates, galliformes and carnivores inside the Nanda

Devi National Park are higher when compared to similar protected areas in the western Himalaya. The Valley of Flowers is internationally important on account of its diverse alpine flora, representative of the West Himalaya biogeographic zone. The rich diversity of species reflects the valley's location within a transition zone between the Zanskar and Great Himalaya ranges to the north and south, respectively, and between the Eastern and Western Himalaya flora. A number of plant species are internationally threatened, several have not been recorded from elsewhere in Uttaranchal and two have not been recorded in Nanda Devi National Park. The diversity of threatened species of medicinal plants is higher than has been recorded in other Indian Himalayan protected areas. The entire Nanda Devi Biosphere Reserve lies within the Western Himalayas Endemic Bird Area (EBA). Seven restricted-range bird species are endemic to this part of the EBA (SoOUV, 2012).

Assessment information

Threats

Current Threats

Low Threat

The existing level of threats to the site is low. The main current conservation issues include solid waste associated with high visitors' numbers in the buffer zone of the Valley of Flowers National Park.

► Invasive Non-Native/ Alien Species

Low Threat
Inside site
Outside site

Progress has been achieved in addressing the threat of invasive species; however, ongoing field monitoring is required.

► Subsistence hunting

High Threat

Inside site

In the Valley of Flowers National Park, there is a constant threat from local poachers to the snow leopard, and to ungulates when they come down to the valleys in winter (WCMC, 2011).

► Tourism/ visitors/ recreation

Low Threat
Inside site

The presence of prominent shrines outside the site but in the buffer zone attract a very large number of pilgrims. The problem of solid waste is increasing at an alarming rate because of the heavy influx of tourists and insufficient management response (Tiwari et al., 2010).

Potential Threats

High Threat

The site is suitable for hydropower development (dams) due to presence of Himalayan river and variations in topography. Development of hydropower projects in the buffer zone of the site remains a potential threat. The cumulative impacts of various hydroelectric projects in the area are of particular concern and need to be considered when projects are planned.

► Tourism/ visitors/ recreation

Low Threat
Inside site

There is a constant pressure from the mountaineering associations to open the site for expeditions (IUCN Consultation, 2014). Uttarakhand State Government has developed a Mountaineering Policy that permits mountaineering and adventure based activities in the buffer zones but in a regulated manner. Many peaks on the rim of Nanda Devi NP are open for climbing as they have access from the buffer zones without entering the NP There are only four peaks inside Nanda Devi NP that are banned for mountaineers as the approach is through the NP. There is pressure to open those four peaks inside the NP.

► Roads/ Railroads

Low Threat
Inside site
Outside site

Due to general inaccessibility in the mountain environment, there is a constant demand for road construction for improved access (IUCN Consultation, 2014).

► Dams/ Water Management or Use

Very High Threat
Outside site

The site is suitable for hydropower development (dams) due to presence of Himalayan river and variations in topography. Development of hydropower projects in the buffer zone of the site remains a potential threat (SoOUV, 2012). The cumulative impacts of various hydroelectric projects in the area are of particular concern and need to be considered when projects are planned (WII, 2012).

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

The local communities residing in the buffer zones of the Nanda Devi Biosphere Reserve actively participate in the conservation programmes of the Forest Department (SoOUV, 2012). The Eco-Development Committees have been established to help address some of the issues, particularly litter management (IUCN, 2005).

► Legal framework and enforcement

Mostly Effective

The Valley of Flowers was declared a national park in 1982, under the Wildlife (Protection) Act, 1972. In accordance with this Act, livestock grazing ceased

from 1982 (IUCN Evaluation, 2005). The Nanda Devi National Park was established in 1982. Mountaineering is regulated under State Government Order No. 997/CS/MT/2004, in accordance with new Guidelines for Mountaineering Expeditions in
Uttaranchal. Two peaks, Rataban (6,126 m) and Ghori Parbat (6,601 m), within VoF National Park are open for mountaineering, subject to permission from the Chief Wildlife Warden and special conditions. Legal Provisions were considered adequate by the 2005 IUCN Evaluation of the site's extension (IUCN, 2005).

► Integration into regional and national planning systems

Data Deficient

Data deficient

► Management system

Mostly Effective

The World Heritage site consists of two component protected areas. The Valley of Flowers National Park is administered by the Uttarakhand State Forestry Department. Together with the Nanda Devi National Park it is encompassed in the Nanda Devi Biosphere Reserve (WCMC, 2011; SoOUV, 2012). The Nanda Devi NP is being managed as a core zone of the Biosphere Reserve (PR, 2002). Management of the Valley of Flowers NP is planned and carried out
within the overall management of the Biosphere Reserve, for which there is a Landscape Management Plan for the period 2003/04 – 2012/13 (IUCN, 2005).

► Management effectiveness

Mostly Effective

Both component protected areas appear to be well-managed and are also naturally well protected due to their inaccessibility. The State Forest Department runs a number of conservation programmes, including regular monitoring of the status of wildlife (SoOUV, 2012).

► Implementation of Committee decisions and recommendations

Highly Effective

No recent Committee decisions

► Boundaries

Mostly Effective

The two component protected areas that comprise the World Heritage property are separated by the Dhauli Ganga with areas on either side of the river being reserved forests (IUCN, 2005). The integrity of this property is further enhanced by the fact that both the parks form the core zones of the Nanda Devi Biosphere Reserve and are encircled by a large buffer zone of 514,857 ha. The Kedarnath Wildlife Sanctuary and the Reserved Forest Divisions located west, south and east of the Biosphere Reserve provide additional buffer to this Biosphere Reserve (SoOUV, 2012).

► Sustainable finance

Data Deficient

In 2005 the total annual budget for Nanda Devi Biosphere Reserve equated to US $272,000, of which US $ 45,000 was for the Valley of Flowers National Park and US $ 75,000 for Nanda Devi NP (IUCN, 2005). No recent data is available.

► Staff training and development

Mostly Effective

In 2005 there were 67 permanent staff for the Biosphere Reserve, with 16 deployed in the Valley of Flowers National Park and 20 in the Nanda Devi NP. The available resources were considered adequate (IUCN, 2005). Significant amount of management, e.g. trail maintenance, is achieved through cooperation of local communities.

► Sustainable use

Highly Effective

Both parks are subject to very low levels of human use, with only some community-based ecotourism that is regulated and facilitated by the park management (SoOUV, 2012).

► Monitoring

Mostly Effective

The State Forest Department carries out regular monitoring of the status of flora, fauna and their habitats, as well as of limited routes that provide access to the two national parks (SoOUV, 2012).

► Research

Mostly Effective

Research and monitoring on various aspects are ongoing.

► Education and interpretation programs

Mostly Effective

There is a Tourist Interpretation Centre at Gangaria on the way to Valley of Flowers NP that provide resources for conservation education

► Tourism and interpretation

Mostly Effective

Local youth have been trained as guides and accompany tourists to Valley of Flowers NP. Guides also accompany trekkers in the buffer zones of Nanda Devi NP.

Overall assessment of protection and management

Mostly Effective

The protection and management status is presently effective. However, continued vigil is required as the area is large and terrain is difficult. The human resources for management of the site need to be augmented to ensure long-term protection of the site.

► Assessment of the effectiveness of protection and management in

addressing threats outside the site
Data Deficient

Data deficient

▶ **Best practice examples**

1. The site is implementing a community driven solid waste management system.
2. The site has identified ‘trekking routes’ for recreational/ adventure tourism which are on the periphery and these operations provide livelihood support to local communities.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Natural beauty and aesthetic values**
Good
Trend:Stable

The natural beauty of the site and its aesthetic values have been well preserved. The area is almost inaccessible and there is very limited use which contributes to the conservation of the site’s aesthetics and wilderness values.

▶ **Important site for in-situ conservation of biological diversity**
Good
Trend:Improving

Results of the surveys and analysis of remote sensing data indicate substantial improvement in the status of flora, fauna and their habitats inside Nanda Devi National Park. Similarly, studies and annual surveys in Valley of Flowers National Park indicate the maintenance of the status of the flora, fauna and habitats (SoOUV, 2012).

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
Good
Trend: Stable

The natural beauty and wilderness values of the site remain well preserved, largely thanks to its inaccessibility and limited use. Results of monitoring surveys indicate the status of flora, fauna and their habitats inside both Nanda Devi and Valley of Flowers National Parks is good.

Additional information

Key conservation issues

▶ **Hydropower Development**
National

There is a huge demand for hydropower generation which has the potential to negatively impact biodiversity values

▶ **Recreational/ Adventure/ Religious Tourism**
Local

The site has high potential for various forms of tourism. Trekking in Himalayas is a big attraction. Visitation to religious shrines in and around the site is on the rise and therefore solid waste management is a big issue in this fragile environment.

Benefits

Understanding Benefits

► Sacred natural sites or landscapes

The site has un-matched aesthetic and wilderness values

► Is the protected area valued for its nature conservation?

The site conserves a unique assemblage of mountain mammals including snow leopard, musk deer, brown bear

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Wildlife Institute of India (WII), Dehradun		The WII has been implementing several UNESCO sponsored research and monitoring projects in this site.
2	Govind Ballabh Pant Institute of Himalayan Environment & Development (GBPHIED), Almora		The Institute is the lead organization of the Ministry of Environment & Forests for research and monitoring activities in the site

REFERENCES

№	References
1	Climate Change Adaptation Workbook: Responding to Climate Change. A guide for managers of natural World Heritage sites - Nanda Devi & Valley of Flowers National Parks. 2013. UNESCO World Heritage Centre, Paris. Pp. 34.
2	IUCN Evaluation, 2005.
3	Nanda Devi World Heritage Site: Biodiversity conservation for over two decades and challenges for the future. 2008. V.B. Mathur. Paper presented in the Training workshop on 'Management and conservation of world heritage sites – Conservation for peace', Hiroshima, Japan, March 30–April 4, 2008
4	Retroscpective Statement of Outstanding Universal Value (SoUV), 2012.
5	Sathyakumar, S. 2003.Conservation status of Mammals and Birds in Nanda Devi National Park: An assessment of changes over two decades (IN) Biodiversity Monitoring Expedition Nanda Devi 2003. A report. Pp. 1-14.
6	Uniyal, V.P. 2002. Nanda Devi Expedition (Report). Wildlife Institute of India, Dehradun
7	WHBPI Implementation in Keoladeo and Nanda Devi World Heritage Sites: Key Activities, Outcomes and Learnings. 2013. V.B. Mathur. Paper presented in regional conference on „Conservation and Management of UNESCO World Natural Heritage Sites: Sharing experiences and Best Practices from South Asia‟ on 17-18 September, 2013.
8	Wildlife Institute of India (WII), 2012. Cumulative Impact Assessment of Ganga hydel projects on biodiversity.