IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 08 November 2017

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

2017 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

Low Threat

The existing level of current threats to the site is low. The main current conservation issues include poaching of snow leopard and its prey species, and accumulation of 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. 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 (7,817 m), the highest and most sacred peak in Uttarakhand, is revered by the people of both Kumaon and Garhwal. This landscape is world famous for its beauty and majesty among the mountaineers and explorers all over the world. This spectacular landscape is complemented by the Valley of Flowers, an outstandingly beautiful high-altitude Himalayan valley, which has been acknowledged as such by the explorers, mountaineers and botanists in literature for over a century and in Hindu mythology for much longer. Its ‘gentle’ landscape, breathtakingly 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 sub-nival zones and glacial moraines. This park holds significant populations of Himalayan flora and fauna, many of which have global conservation significance e.g., 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 recognised site for 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. This park houses a large number of floral assemblages in their pristine form, several of which have not been recorded from elsewhere in Uttarankhand. 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 poaching of snow leopard and ungulates (snow leopard prey species), and the accumulation of solid waste associated with high visitors' numbers in the buffer zone of the Valley of Flowers National Park.

► Poaching

High Threat
Inside site, extent of threat not known

In the Valley of Flowers National Park, there is a looming threat from local the local poachers who may come from outside the Valley specially during winter when the park staff as well as local people descend to the lower altitude and a few ungulates descend down to the lower altitudes in winter (WCMC, 2011).

► Tourism/ visitors/ recreation

Low Threat

Inside site, extent of threat not known

The presence of prominent shrines outside the site but in the buffer zone attract a large number of pilgrims. The problem of solid waste is increasing rapidly due to heavy influx of tourists and insufficient management response (Kuniyal, 2005; Singh et al., 2009; Tiwari et al., 2010).

► Invasive Non-Native/ Alien Species

Low Threat
, extent of threat not known
Outside site

A few native opportunistic herbs, e.g., Polygonum polystachyum and Impatiens sulcata dominate the valley portion of the National Park suppressing other dwarf herbaceous communities. However, this is a natural succession and specific to certain habitats only. However, ongoing field monitoring is required.

Potential Threats

High Threat

The site is susceptible to hydropower development (run of the river project) due to presence of Himalayan rivers 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, extent of threat not known

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, extent of threat not known
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

Highly 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).

► Enforcement

Mostly Effective

The area is protected by law under the Wildlife Protection Act and Forest Conservation Act of Government of India, and the conservation management and legal provisions are enforced as a part of regular management (IUCN Consultation, 2017).

► Integration into regional and national planning systems

Mostly Effective

The site is also a Biosphere Reserve and generally is covered under the National Wildlife Action Plan, and other conservation management agenda at regional and national strategies.

► 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. However, the Government of India continues to provide annual funds for management of the Biosphere Reserve, and the State Government has sufficient fund for managing the site (IUCN Consultation, 2017).

► 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).

► Education and interpretation programs

Mostly Effective

There is a Tourist Interpretation Centre at Gangaria on the way to Valley of Flowers NP that provides resources for conservation education, appreciation of natural heritage and understanding of the fascinating mountainous landscape.

► Tourism and visitation management

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.

► 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.

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

There have been consistent effort in managing the area outside the site, due to its high tourism value, but the effectiveness needs to be understood fully.

► 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). The biodiversity values of the site continue to be well preserved (IUCN Consultation, 2017).

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

Benefits

Understanding Benefits

▶ **Wilderness and iconic features**

The site has un-matched aesthetic and wilderness values

Natural disasters such as landslides and avalanches in the lower parts of

Valley of Flowers poses a challenge for the management as it affects the visitation and interpretation of the PA.

► **Water provision (importance for water quantity and quality)**

Environmental services

This site of high biological diversity offers significant water resources, air quality management regulation and influences local and regional weather characteristics including precipitation and temperature. The site provides good quality water at critical times of the year to the urban, industrial and agricultural activities that primarily take place in the buffer zone of Nanda Devi National Park.

Summary of benefits

The site provides significant values in terms of natural beauty, biological integrity and provides valuable ecosystem services.

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 National Institute of Himalayan Environment & Sustainable Development (GBPNIHESD), Almora		The Institute is the lead organization of the Ministry of Environment, Forests & Climate Change of the Government of India for research and monitoring activities in the site.
3	Department of Science and Technology, Government of India		Under the National Action Plan on Climate Change, a dedication mission called National Mission on Sustaining Himalayan Ecosystem (NMSHE) is being made to assess climate change effects and adaptation strategies through various Task Forces.

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