

WORLD HERITAGE NOMINATION — IUCN SUMMARY

335: NANDA DEVI NATIONAL PARK (INDIA)

Summary prepared by IUCN (March 1988) based on the original nomination submitted by the Government of India. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION:

Lies in the Garhwal Himalaya of Chamoli District, Uttar Pradesh. The main entry point is via Lata Village, some 25km from Joshimath township. The national park is bounded by high mountain ridges and peaks on all sides except its western side, which features a deep and virtually inaccessible gorge. Area is 63,033ha. 30°16'-30°32'N, 79°44'-80°02'E.

2. JURIDICAL DATA:

Established as a national park with effect from 6 November 1982, the intention having been notified on 18 August 1980, under the provisions of the Wild Life (Protection) Act, 1972. Originally established as a game sanctuary on 7 January 1939. Land is owned by the provincial government.

3. IDENTIFICATION:

The area is a vast glacial basin, divided by a series of parallel, north-south oriented ridges. These rise up to the encircling mountain rim along which are about a dozen peaks above 6,400m, the better known including Dunagiri (7,066m), Changbang (6,864m) and Nanda Devi East (7,434m). Nanda Devi West (7,817m) lies on a short ridge projecting into the basin and rises up from Nanda Devi East on the eastern rim. Trisul (7,120m), in the south-west, also lies inside the basin. The area constitutes the catchment of the Rishi Ganga, which has cut an impressive gorge through the lower section of the valley. The central and southern parts of the national park fall within the Central Crystallines, a zone of young granites and metamorphic rocks, while along the northern edge is exposed the Tibetan-Tethys. Sediments of the latter form Nanda Devi itself, together with many of the surrounding peaks, and display spectacular folding and thrusting.

Forests are restricted largely to the Rishi Gorge and are dominated by fir, rhododendron and birch up to about 3,350m. Conditions are drier within the 'Inner Sanctuary', where the vegetation changes from forest to dry alpine communities, with scrub juniper providing the dominant cover.

Some 14 species of mammals and 578 birds have been recorded. The basin is renowned for the abundance of its ungulate populations, notably bharal. Himalayan musk deer, serow and Himalayan tahr are also fairly common. Reports suggest that snow leopard is relatively common.

Nanda Devi has been revered as a natural monument since ancient times. Hindus have deified the entire basin and every twelfth year devotees have approached the foot of Trisul to worship Nanda Devi, the 'Blessed Goddess'.

4. STATE OF PRESERVATION/CONSERVATION:

The area is reputedly one of the most spectacular wildernesses in the Himalaya and is dominated by Nanda Devi, a natural monument and India's second highest peak. It supports a diverse flora, largely on account of the wide altitudinal range, and an interesting variety of large mammals, including a number of rare or threatened species. Unlike many other Himalayan areas, it is free from human settlement and has remained largely unspoilt due to its inaccessibility. Recently, it has been earmarked as one of several protected areas for inclusion under the Government of India's Project Snow Leopard.

Traditionally, the alpine pastures of the 'Outer Sanctuary' were grazed by livestock from Lata Village and elsewhere up until the establishment of the national park. The 'Inner Sanctuary' remained unexplored until 1934, when it was opened up to mountaineering. As a result, hunting, collection of medicinal plants and other forms of exploitation ensued. This part of the Himalaya was subsequently closed to foreign visitors from 1945 to 1974. There followed a spate of mountaineering and trekking which resulted in considerable disturbance to the environment. On 18 February 1983 it was decided, therefore, to ban such activities under the provisions of the Wild Life (Protection) Act, 1972.

Virtually nothing is known about the present status of the wildlife within the 'Inner Sanctuary'. The two routes of access that used to be kept open by expeditions have not been maintained by the park authorities since the ban on tourism. A few of the wildlife staff have been trained in mountaineering, but they lack the necessary mountaineering equipment to keep routes open.

A preliminary management plan has been prepared but awaits sanctioning by the Chief Wildlife Warden. Included in the recommendations are reviews of the present ban on tourism and ways in which to provide employment for local people.

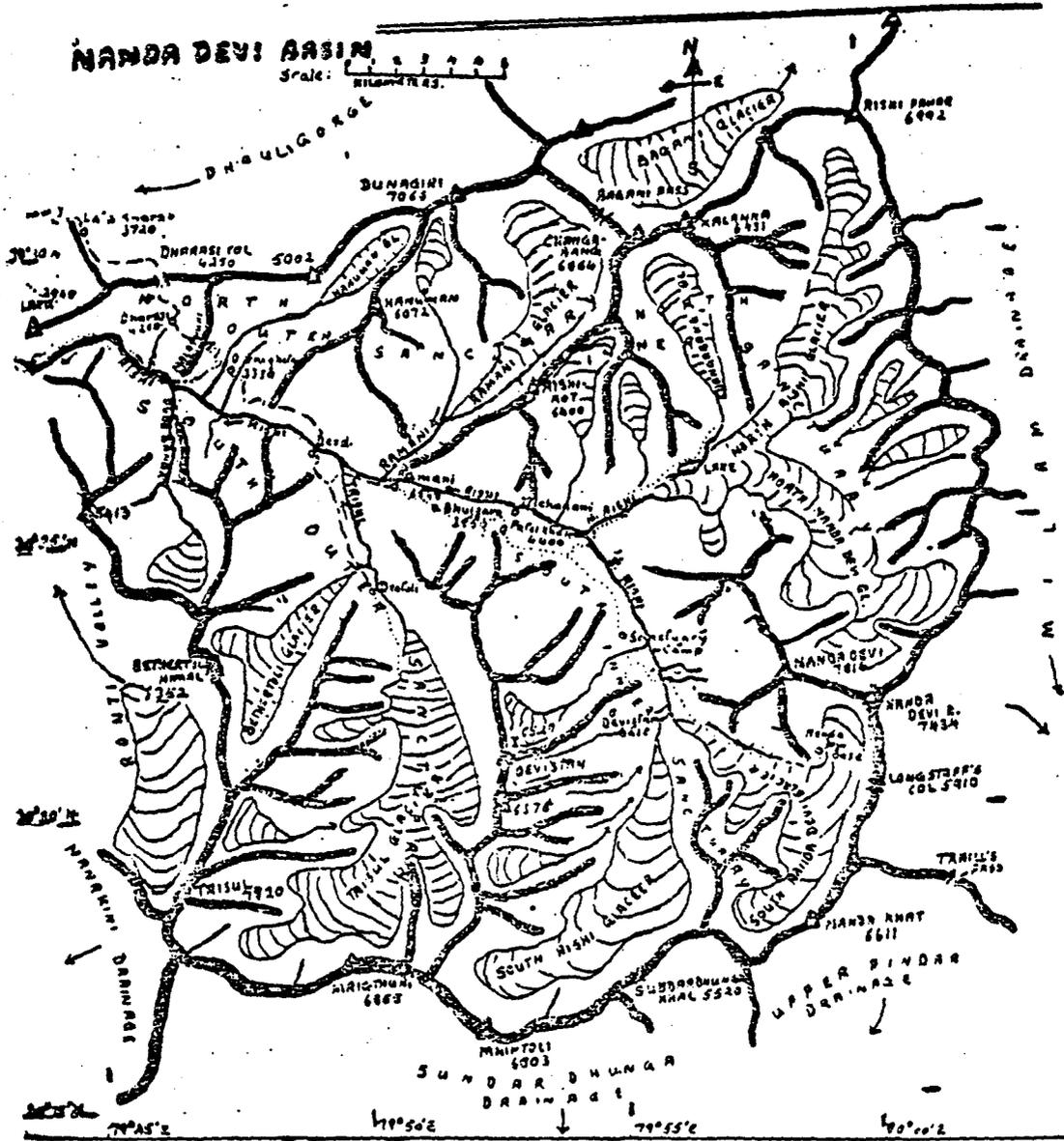
5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Nanda Devi nomination, as presented by the Government of India, provides the following justification for designation as a World Heritage property:

b) Natural property

- (iii) Exceptional natural beauty. Mountain wilderness, dominated by India's second highest mountain and protected on all sides by spectacular topographical features that have largely preserved its integrity to date.
- (iv) Rare or threatened species. Contains a number of threatened mammals, notably snow leopard and Himalayan musk deer, as well as a large population of bharal.

NANDA DEVI SANCTUARY



- Physical Features:**
- Mayne Ridges
 - Summits with altitudes in meters
 - Rivers
 - Glaciers and Snowfields
 - Sheer Rock Cliffs and Precipitous Slopes
 - Camping Areas
 - Foot Path
 - Trail

Map 1. Nanda Devi Basin: Physical features.

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

335 NANDA DEVI NATIONAL PARK (INDIA)

1. DOCUMENTATION

- i) IUCN Data sheet
- ii) Consultations: W.M. Aitken, C.J.S. Bonington, J.C. Daniel (Bombay Natural History Society), M. Datta (Jan Jagran Samiti), J.E. David (WWF-India), J.D. Ives (International Mountain Society), K. Lavkumar, T.M. Reed (Nature Conservancy Council), M. Searle (Department of Geology, University of Leicester), V.C. Thakur (Wadia Institute of Himalayan Geology)
- (iii) Literature consulted: Preliminary Management Plan Report of Nanda Devi National Park, 1986; The Himalaya - Aspects of Change, J.S. Lall, 1981, Oxford University Press; Ecology and Biogeography of India, M.S. Mani and W. Junk (Eds.), 1974, B.V. Publishers; The Ascent of Nanda Devi, H.W. Tilman, 1937, Cambridge University Press
- (iv) Site visit: November 1987 (M.J.B. Green)

2. COMPARISON WITH OTHER AREAS

Nanda Devi National Park (63,033ha) consists of a vast glacial basin protected by a rim of high mountain ridges and peaks, including Nanda Devi (7,817m), India's second highest peak after Kangchenjunga (8,586m) on the Indo-Nepal border. The basin presents a wide range of glacial and periglacial forms. The glaciers exhibits a fine variety of growth stages and patterns comparable to those of Europe and North America.

Nanda Devi National Park is the oldest established Himalayan protected area, having originally been created a game sanctuary in 1939 after the exploration of its basin by E. Shipton and H.W. Tilman in 1934. The area is notable for its concentration of high mountain peaks and glaciers, comparable to other Himalayan areas such as Nanga Parbat in the Northern Areas of Pakistan, Kolahoi and Nun Kun in Jammu & Kashmir (India), and Dhaulagiri-Annapura-Manaslu and Everest-Makalu-Kangchenjunga in Nepal. It stands out from these in its spectacular mountain wilderness, with Nanda Devi, one of the world's greatest mountains, presiding over some of the most beautiful mountain scenery in the world that remains largely unaffected by human activity due to its inaccessibility. The area is drained by the Rishi Ganga, which has carved for itself what is considered to be one of the world's most spectacular gorges. Tom Longstaff, in his foreword to Tilman's The Ascent of Nanda Devi, comments: "Double crowned Ushba in the central Caucasus is the only mountain which I can compare for beauty with Nanda Devi. But the surroundings of the latter are more beautiful even than in Svanetia. ...Garhwal is the most beautiful country of all High Asia. Neither the primitive immensity of the Karakorum, the aloof domination of Mount Everest, the softer Caucasian beauties of the Hindu Kush, nor any of the many other regions of Himachal can compare with Garhwal. ...The human interest is stronger than in any other mountain region of the world, for those anciently named peaks are written of in the earliest annals of the Indo-Aryan race. They are the home of the Gods."

The national park lies in a biogeographical zone of overlap between the Eastern and Western Himalaya. This zone, sometimes referred to as the Central Himalaya, extends from the Sutlej River (78 E) in Himachal Pradesh, India eastwards to the Kali Gandaki Gorge (84 E) of Nepal. While the Sutlej is taken to be a faunal boundary for mammals, the Kali Gandaki is regarded as the boundary between the Eastern and Western Himalaya with respect to the flora and avifauna. These biogeographic factors, combined with local climatic conditions, give rise to a flora and fauna within Nanda Devi Basin that is distinctive although not exceptionally high in terms of species endemism or diversity. Notable, however, is the minimal disturbance over the entire altitudinal range (2,100-7,817m), a feature unparalleled in the Western and Central Himalaya. This is reflected in the large populations of large mammals, including a variety of threatened and relatively uncommon species (e.g. snow leopard, musk deer, tahr and blue sheep). The only other national parks within this zone are: Great Himalaya (62,000ha) and Valley of Flowers (8,959ha) in India; and Lake Rara (10,600ha) and Shey-Phoksundo (355,500ha) in Nepal. Other important conservation areas in the zone are: Govind Pashu Vihar (95,312ha) and Kedarnath Musk Deer Sanctuary (97,524ha), India; and the proposed Annapurna Conservation Area (80,000ha), Nepal, which does not have protected area status. Annapurna Deuthali, in the proposed Annapurna Conservation Area, is regarded as one of the most impressive mountain cirques in the world, being surrounded by seven peaks over 7,000m. This natural amphitheatre is smaller than the Nanda Devi Basin; moreover, it is heavily disturbed, suffering from over-exploitation of forest and grassland resources, declining faunal populations and uncontrolled tourism.

The only Himalayan protected area currently on the World Heritage List is Sagarmatha National Park (114,800ha) in the Eastern Himalaya. Nanda Devi is distinct from the Mount Everest region in terms of its flora and fauna and the absence of a resident human population.

3. INTEGRITY

The Nanda Devi Basin supports a range of habitats that have remained pristine, not so much due to vigilance on the part of the authorities but because of their remoteness and difficult access. It has always been free from any permanent human settlement. The alpine pastures of the 'Outer Sanctuary' used to be grazed by livestock but this has been stopped, together with all other forms of human activity including mountaineering and trekking.

A preliminary management plan for the national park was drafted in September 1986 but it awaits sanctioning by the Chief Wildlife Warden of Uttar Pradesh. Included in this document is the recommendation to re-open the area to visitors under certain conditions. Not only would this ameliorate local antagonism towards the present cessation of trekking, which was a source of income for a significant proportion of villagers in the neighbourhood, but it would also act as a deterrent to poachers.

The present level of management is judged to be inadequate. Staffing is sufficient but policing is restricted to the periphery of the national park. It appears that none of the staff has visited beyond Dharansi, some 14km inside the boundary, since the closure of the national park in 1983. Thus, nothing is known about the present status of the wildlife within the 'Inner Sanctuary' where, it is reliably reported, poachers are operating. Some staff have been trained in mountaineering but they lack the necessary equipment to fix ropes along the several dangerous sections of the trail into the 'Inner Sanctuary'.

With the closure of the national park to livestock, changes to the previously grazed pastures of the 'Inner Sanctuary' can be expected to precede any increase in wild herbivore populations. Such changes need to be monitored closely as they are unlikely to be all positive.

4. ADDITIONAL COMMENTS

Relatively little scientific documentation exists for the Nanda Devi Basin. Most visitors to the area have been climbers and explorers, with few scientists among them. Nevertheless, reviewers were disappointed with the quality (and accuracy) of the nomination, and felt that a much stronger case could have been presented. Also, a good map needs to be provided.

Considerable progress has been made by the State Government of Uttar Pradesh during the last decade to set up the necessary infrastructure to conserve and manage wildlife in the Chamoli District of eastern Garhwal. Staffing levels within the district have been increased from a handful of wildlife guards, under an Assistant Wildlife Warden in 1979, to the present quota of 90 personnel headed by a Divisional Forest Officer. With proper patrolling by the existing guard force, it should now be possible to effectively control poaching and encroachment, particularly in Nanda Devi National Park where the limited number of access points provides the authorities with a major management advantage.

Nanda Devi Basin is highly suitable for the development of nature tourism (mountaineering and trekking) on account of its difficult access and spectacular wilderness. The trek to Nanda Devi base camp is demanding and hazardous, even by Himalayan standards, and appeals to those seeking a challenge. IUCN agrees that the national park should be opened for nature tourism along the lines suggested in the Preliminary Management Plan Report. Particularly emphasis should be given to the following:

- the number of visitors should be strictly limited,
- trekking/mountaineering/research groups should be accompanied by wildlife staff,
- local people should be employed as wildlife staff and as porters, guides etc. by visiting parties,
- existing bridleways and footpaths should be maintained but, contrary to proposals in the Preliminary Management Plan Report, no attempt should be made to improve them or provide facilities such as rest houses. Provision of easier access, accommodation and other facilities would not only be detrimental to the quality of adventure and wilderness afforded by the national park, but would also necessitate more stringent measures to control the number of visitors. In the past, the difficult access has itself been a decisive limiting factor on the extent of tourism.

Nanda Devi and the adjacent Uttarkhand are among 13 sites originally proposed as biosphere reserves by the Government of India. In August 1987, it was suggested that Nanda Devi and Uttarkhand be combined into a single Nanda Devi Biosphere Reserve covering c. 370,000ha and comprising four units, namely: Kedarnath Musk Deer Sanctuary, Pindari-Sundadunga, Nanda Devi National Park and Valley of Flowers National Park-Khagbhusandi. A final decision on this proposal is to be taken. Nanda Devi National Park is also one of eight protected areas earmarked for funding by the Government of India under Project Snow Leopard, to be developed as a Himalayan facsimile of Project Tiger.

5. EVALUATION

Nanda Devi National Park is an outstanding mountain wilderness with few, if any, parallels elsewhere in the Himalaya on account of its concentration of high peaks and glaciers lying within a range of near-pristine habitats. It lies within a biogeographical transition zone between the Western and Eastern Himalaya and supports a variety of threatened and uncommon species of large mammals. The present status of these populations is not known but may have suffered from poaching since 1981-84 when they were last surveyed by the Zoological Survey of India.

The site merits inclusion in the World Heritage List on the basis of its exceptional natural beauty criteria (iii) and populations of rare and threatened mammals criteria (iv). Integrity concerns are the lack of an adequate management plan approved by the State authorities, absence of routine patrolling within the "Inner Sanctuary"; and an up-to-date report on wildlife populations. Moreover, as a World Heritage site, it is expected that Nanda Devi National Park will receive increasing demands to open the Park to controlled visitation.

6. RECOMMENDATIONS

Nanda Devi National Park should be added to the World Heritage list. The Bureau should request the Indian authorities to provide clarification on the following points:

- present status of the management plan,
- frequency and extent of patrolling within the "Inner Sanctuary",
- future policy regarding provisions for tourism,
- present status of wildlife populations, particularly large mammals such as blue sheep.

If the national park is re-opened for mountaineering and trekking, the authorities might wish to approach the World Heritage Committee for assistance in planning and managing tourism. Possibilities might include:

- provision of technical assistance to develop a plan for controlling nature tourism, with benefits accruing directly to the local community;
- training of staff and park guides in park management, with special emphasis on managing nature tourism in mountain areas.

The authorities might also wish to seek assistance to carry out a wildlife status survey.

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