

U N E S C O

Convention concerning the Protection of the World Cultural and Natural Heritage  
NOMINATION TO THE WORLD HERITAGE LIST

Name: ROYAL CHITWAN NATIONAL PARK

Identification No: 284

Date received by WH Secretariat: 3.8.83

Contracting State Party having submitted the nomination of the property in accordance with the Convention: NEPAL

Summary prepared by IUCN (March 1984) based on the original nomination submitted by Nepal. 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.

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1. LOCATION: Southern central Nepal on the border with India.

2. JURIDICAL DATA:

Owned by the Government of Nepal, and managed by the Department of National Parks and Wildlife Conservation. The area had been well protected for hunting purposes from 1846 to the early 1950s. Park proposals were made as early as 1959 and the park itself was established in 1973 under the National Park and Wildlife Conservation Act. A total of 22,000 settlers were moved out of the area. Substantial additions were made in 1978, and there are proposals for a further eastward extension which would increase the park area by another 40%.

3. IDENTIFICATION:

Royal Chitwan National Park covers 932 sq km of sub-tropical lowland, wedged between two east-west river valleys at the base of the Siwalik range of the outer Himalayas. The rocks of this range are predominantly composed of sandstones, conglomerates, quartzites, shales and micaceous sandstones. The altitude varies from 150 to 760 m. Monsoon rains, when nearly 2,000mm fall between June and September, cause dramatic floods, large changes in river character and often significant changes in the river courses. Seasonal climatic changes are profound, and in the winter, dry northerly winds reduce temperature and humidity considerably.

The park is dominated by almost monotypic stands of sal forest which occupy 60% of the total area and is a remnant of the lowland Terai which stretched across the foot of the Himalayas through India and Nepal. Riverine forest and grasslands form a mosaic along the river banks maintained by seasonal flooding. On the hills are pines and scattered palms, and moister slopes support bamboos.

The park contains the last Nepalese population (estimated at 400) of the endangered great one-horned Asian rhinoceros which is the second largest concentration of this species to occur after Kaziranga in India. Royal Chitwan is also one of the last strongholds of the Royal Bengal tiger. Other threatened mammals occurring in the park include leopard, wild dog and gaur which are listed by IUCN as vulnerable, and the sloth bear. Other mammals include sambar, chital, hog deer, barking deer, wild pig, monkeys, otter, porcupine, yellow-throated marten, civet, fishing cat, jungle cat, jackal, striped hyena and Indian fox. Aquatic species include the gangetic dolphin,

the mugger crocodile (listed by IUCN as vulnerable) and the endangered gharial. Over 350 reported bird species including greater hornbill, Bengal florican, peafowl, crested serpent-eagle, Himalayan grey-headed fishing eagle and white-back vulture. Ruddy shelduck and bar-headed goose winter on the rivers. The threatened Indian python also occurs within the park, and some 99 fish species inhabit the rivers and oxbow lakes.

#### 4. STATE OF PRESERVATION/CONSERVATION:

Field management of the park was begun in 1971 and a Management plan for the period 1975-9 was prepared. The park has been attractive for scientific investigators and many field studies have been carried out. A visitor centre with displays is open to an increasing number of visitors to the "Tiger Tops" lodge.

The principal disturbances are fire, grass-cutting by the local population for thatch grass (the park is opened for 15 days each year for grass cutting) and tourism. There is antagonism against the park due to lost grazing and wood collection rights, crop damage (though there is now some compensation) and deaths caused by park animals. An increased education programme and better control on access along the northern boundary are current management priorities. Proposed construction of pulp mills in the region may cause a problem through downstream effects of effluent particularly on the gharial and planned usage of the park's grasses as a source of raw material.

#### 5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Royal Chitwan National Park nomination, as presented by the Government of Nepal, provides the following justification for designation as a World Heritage property:

- a) Cultural property -- not applicable
- b) Natural property
  - (i) Earth's evolutionary history. The Churia Valley is an important watershed for northern India because of its unique topographical location.
  - (ii) On-going geological processes. The park is one of the last undisturbed examples of this type of habitat in south Asia and retains a high diversity of species.
  - (iii) Exceptional natural beauty. Wildlife viewing with the Himalayas as a backdrop attract relatively large numbers of visitors to the park.
  - (iv) Habitats of rare and endangered species. There are a number of threatened and endangered species (Bengal tiger, Asian one-horned rhinoceros, guar, Asiatic wild dog, sloth bear, gharial, Indian python) found in the park. With the proposed extension of boundaries, the park will become the largest protected area of its kind in south Asia.

284 ROYAL CHITWAN NATIONAL PARK (NEPAL)

1. DOCUMENTATION:

- (i) Nomination form and maps
- (ii) IUCN Data Sheets
- (iii) Consultations: P. Jackson, J. Blower, J. McNeely
- (iv) Literature Consulted: Bolton, M. 1975. Royal Chitwan National Park Management Plan 1975-79. FAO Report.  
IUCN Project Files  
Milton, J.P. and G.A. Binney. 1980. Ecological Planning on the Nepalese Terai. Threshold Report to WWF and Sierra Club.  
Mishra, H.R. 1982. Balancing Human Needs and Conservation in Nepal's Royal Chitwan Park. Paper presented at the World Congress on National Parks, Bali, Indonesia.

2. COMPARISON WITH OTHER AREAS

Within the Nepal Terai there are three other protected areas: the Karnali Wildlife Reserve, the Sulkaphanta Sanctuary and the Kosi Tappu Sanctuary. None of these areas contain rhino or the species diversity of Royal Chitwan. Further, all are of much smaller size and have lesser legislative protection.

Comparable areas in India are the Kaziranga National Park and the Corbett National Park. Kaziranga has a higher population of the endangered Asian one-horned rhino but is in a different Biogeographical Province with a different mix of species, and does not contain gharials. Corbett is in the same province but has fewer numbers and less diversity of species.

Chitwan's tall grass/riverine forest wild ungulate biomass density (18,590 kg/sq km) is reported to far exceed that reported anywhere else on the Indian subcontinent and approaches that found in some of the reserves of Africa. Chitwan is the largest and least disturbed example of natural Sal hill forest and associated communities of the Terai. It also has the longest period of protection dating back to its use as a Royal Hunting Preserve in the early 1800s. The scientific values of the area, especially in terms of research on rhino and tiger have provided a model for many other areas.

3. INTEGRITY

Royal Chitwan is managed to a high standard with a staff that includes a professional warden and 450 armed guards. Indexes of the success of the national park programme have been the four-fold increase in the rhino population and the revegetation and stabilization of the banks of the Rapti River which has had important erosion and flood control benefits. Boundaries are well defined and the park has a management plan, although it needs updating. Extensions to the park are being considered by the Government.

Threats to the park include some subsistence poaching of vegetation and fuelwood along the boundaries and intensive fishing in the bordering rivers. Collection of thatch grass in the park by villagers is well controlled and is not seen as a

negative impact. Local villagers harbour a significant resentment to the existence of the park primarily due to crop damage by wildlife. By allowing thatch grass collection and by provision of conservation education and other public relations programmes, these problems are being addressed by the National Parks Office.

Currently some 8000 tourists visit the park annually with an average stay of 3 nights. This provides a significant economic justification for the park and the facilities developed are a model of appropriate park accommodation.

The major threat to the integrity of the park is the proposed establishment of two pulp mills on the Narayani River upstream of the park. Apart from the park being a potential source of raw material, the effluent could seriously affect the riverine ecology, particularly for the endangered gharial.

#### 4. ADDITIONAL COMMENTS

Nepal's commitment to protected area management is strong and is reflected in the increased management input that has gone into Sagarmatha National Park since it was given World Heritage status in 1979.

IUCN/WWF concern for Chitwan has been demonstrated in the over US\$500,000 provided for assistance to the park. FAO has also supported Chitwan since 1970 under the National Parks and Wildlife Conservation Project.

#### 5. EVALUATION

Royal Chitwan meets three criteria for World Heritage natural properties. The park is an outstanding example of geological processes and biological evolution as the last major surviving example of the natural ecosystems of the Terai region (criteria ii). The research on the natural history of the area has been an important contribution to man's knowledge of ecological systems in the Terai.

The park also contains superlative natural features of exceptional natural beauty in terms of its scenic attractions of forested hills, grasslands, great rivers and views of the distant Himalayas (criteria iii). Additionally, the park provides critical and viable habitat for significant populations of several rare and endangered species, especially the one-horned Asian rhino and the gharial (criteria iv). The current management of the park is of a high standard and the Government of Nepal has clearly demonstrated that it recognizes the value of the park as an important part of Nepal's heritage.

#### 6. RECOMMENDATIONS

Royal Chitwan National Park should be added to the World Heritage List. The Committee should note and support efforts to extend the park's western border. The Committee should also express its interest in being kept informed of the possible construction of pulp mills on the Narayani River and its potential impact on park resources.