NOMINATION TO THE WORLD HERITAGE LIST

Convention concerning the Protection of the World Cultural and Natural Heritage

Name: KEOLADEO NATIONAL PARK

Identification No: 340 Date received by WH Secretariat: 18.8.84

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

Summary prepared by IUCN (March 1985) based on the original nomination submitted by 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.

 LOCATION: The park is 2 km southeast of <u>Bharatpur</u> town and 50 km west of Agra in the state of Rajasthan. Indus-Ganges Monsoon Forest Biogeographical Province.

2. JURIDICAL DATA:

The 2,873 ha national park had its beginnings in 1900 when it was managed as a private duck shooting preserve. In 1956 it was designated as a bird sanctuary but the Maharaja retained shooting rights until 1972. It was designated a Ramsar site in 1981 and was upgraded to a national park in 1982. It is managed by the Forest Department of the state of Rajasthan.

3. IDENTIFICATION:

Keoladeo is an artificially created and maintained wetland site at the upper reaches of India's Indo-Gangetic plains. For much of the year the wetland area is only some 1,000ha. The area floods in the rainy season (July-September) with average water depth of 1-2m. From October to January the water level gradually lowers and from February the land begins to dry out. By June only some water depressions remain. The environment is partly man-made with dykes dividing the area into 10 units, each with a system of sluice gates to control the water level. The site would not support such numbers of waterfowl as it does without the addition of water from a man-made impoundment. The soils are predominantly alluvial, overlying kankerpan and with some clay formations resulting from the periodic inundation. The mean annual rainfall is 650cm, falling mainly during the wet monsoon.

In an area characterised by sparse vegetation, the Park is the only spot which has dense vegetation and trees. The principal vegetation types are tropical dry deciduous forest intermixed with dry grassland (where forest has been degraded), the greater part of the area is covered with shrubs and medium-sized trees.

The park is primarily known as a major focal point for wintering waterfowl from Afghanistan, Turkmenistan, China and Siberia. Some 364 species of birds have been recorded including the rare Siberian Crane (total in 1985 - 41 birds). The most common waterfowl are gadwall, shoveller, common teal, tufted duck, pintail, white spoonbill, little cormorant, cormorant, painted stork, Asian open-billed stork, oriental ibis, spot-billed pelican, darter, common sandpiper, wood sandpiper, green sandpiper and plover. The Sarus crane, with

its spectacular courtship dance, is also found here. Among land birds is a rich assortment consisting of warblers, babblers, bee-eaters, bulbuls, buntings, chats, partridges and quails. There are many birds of prey including the osprey, peregrine, Pallas or ringtailed fishing eagle, short-toed eagle and tawny eagle.

The dry part of the park harbours moderate numbers of animals such as nilgai, sambar, chital, blackbuck, civet (2 species), and python, 36 species of fish are also found in the waters of the park.

4. STATE OF PRESERVATION/CONSERVATION:

Keoladeo National Park is a small green wildlife oasis within a populated human-dominated landscape. It is surrounded by 17 villages and the industrial city of Bharatpur. The boundaries are clearly delineated by a 32 km long, 2 m high stone wall which totally surrounds the park to prevent human and domestic stock trespass. The wetlands of the park are dependent on a regulated water supply from a dam outside the park boundary.

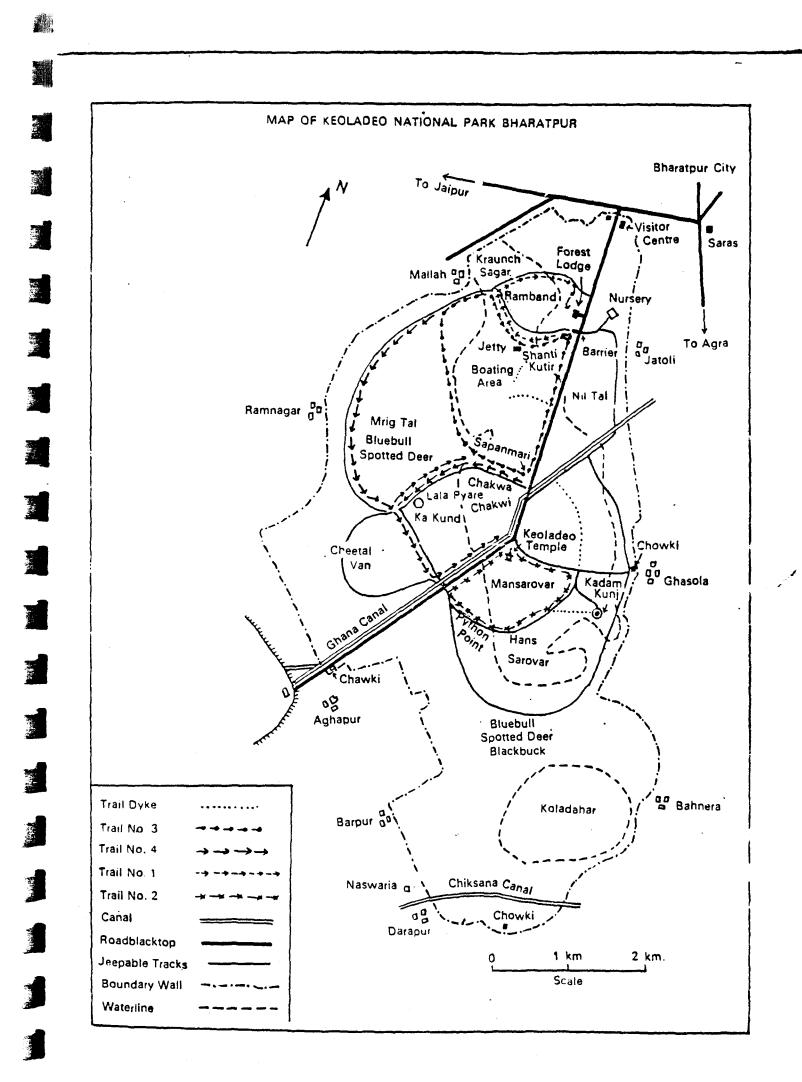
Aware of the natural value of the park and the human pressures it was subject to, major management controls have been implemented over the past few years. Grazing, Khus grass and firewood collection was phased out in 1983. A through road through the park was closed to traffic and relocated outside the park. A research and monitoring programme sponsored by the Bombay Natural History Society is investigating the impacts of these changes as well as conducting inventories of park resources. A remaining management problem is the existence of some 700 feral cattle in the park.

The park is well run by the State Government and attracted some 80,000 visitors in 1984 (25,000 of whom were foreign). There is no management plan.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Keoladeo National Park, as presented by the Government of India, provides the following justification for designation as a World Heritage property:

- a) Cultural property -- not applicable
- b) Natural property
- (iv) Habitats of rare and endangered species. The park is a wetland of international importance for migratory waterfowl. It is the wintering ground for the rare Siberian Crane and is habitat for large numbers of resident nesting birds.



340 KEOLADEO NATIONAL PARK (INDIA)

1. DOCUMENTATION:

- (i) Nomination form
- (ii) IUCN Data Sheets
- (iii) Site visit, 9-11 February 1985
- (iv) Consultations: Dan Navid, John MacKinnon, K. Sankhala, Michael Smart, Patrick Dugan, Peter Jackson, Claude Martin, Ian Grimwood, India Government Officials
- (v) Literature Consulted:
 - -- Ian Grimwood, 1981. The Impact of Tourism on National Parks of India, WWF-India Report.
 - -- India's Wildlife, 1980. Animal Kingdom, October/November.
 - -- National Report of India at Second Ramsar Conference, Groningen, 1984.
 - -- IUCN, 1984. Directory of Wetlands of International Importance.
 - -- J.C. Daniels, 1985. India's Wetland Resources. CNPPA Corbett Meeting paper.

2. COMPARISON WITH OTHER AREAS

The Indus-Ganges Monsoon Forest Biogeographical Province is a well represented one within the Indomalayan Realm with over 5.3 million ha protected in 123 areas. In the case of Keoladeo however, it is more useful to compare it to other wetland sites on the Indian sub-continent. The Government of India has inventoried 407 wetlands in the country, 2 of which, including Keoladeo, have been placed on the Ramsar List of Wetlands of International Importance. Pakistan also has comparable wetlands and has 9 areas as designated Ramsar sites. Several other important comparable wetland areas exist in Bangladesh and Afghanistan. Areas in Pakistan and Afghanistan such as the Haleji, Khushdil Khan and Dast-e-Nawar, being further north, are used more as resting places for birds on passage than as permanent winter quarters.

Of the wetlands in India, more than 100 sites are larger than Keoladeo. Some of the important sites are Chilka Lake (116,500 ha), Point Calemere (25,435 ha), Pullicat (50,000 ha), Kolleru (673,000 ha), Nalsarovar (11,500 ha), Sultanpur (13,727 ha), Little Rann of Kutch, and the Sunderbans.

The distinctiveness of Keoladeo is that it is the only wetland with national park status, it is the only site where the rare Siberian Crane winters, and it is an accessible, much visited, and well-known reserve. Other sites thus may be larger and have greater numbers of Palaearctic migrants but have not received the attention or the level of protection as Keoladeo.

The importance of the area as a wintering ground for 41 Siberian Crane (western population from the Ob River, Siberia) is of less significance since the discovery of 1350 (eastern population) at the Poyang Lake Bird Sanctuary in Jiangxi, China.

The terrestrial wildlife of the park is a supplemental attraction of the area but it does not include a significant population of any rare species.

In summary, there are a large number of wetland sites on the Indian sub-continent, many of which are larger, some of which provide habitat for greater numbers of birds, but few with a similar species assemblage as Keoladeo. Nowhere else in the region are nesting colonies of resident storks and cranes as numerous or as dense.

3. INTEGRITY

The park is totally enclosed by a stone wall immediately outside of which is intense human settlement. Conflicts with local people and the park have caused some political debate as well as civil disturbances. Security of the reserve is now, however, very good and poaching and illegal removal of grass and firewood has been phased out. There is no possibility for a buffer zone.

The dependence of the park's water system on the monsoon and on the water pumped in from outside is a matter of some concern. In 1979, for instance, both sources were inadequate and waterfowl numbers in the park were low. On-going research on the hydrology should minimize this problem in future.

There has been some concern expressed over possible air and water pollution effects from the adjacent city of Bharatpur, but these effects are unknown at present.

In the dry area of the park the existence of over 700 feral cattle is the main management problem. These cattle compete with wildlife for the limited forage available and there are numerous signs of overgrazing as a result. Within the cultural milieu of India, a solution to this problem has not yet been found.

Keoladeo attracts many visitors and has a substantial accommodation facility located inside the park. Disturbances to nesting birds has been substantially reduced in the past few years by closing the park to vehicular traffic. Some negative impacts are still in evidence but an education programme and efficient guide service keeps these to an acceptable minimum.

In conclusion, it is recognized that the existence of Keoladeo is due to the modifications of man. Its management for conservation purposes has gradually been intensified and has resulted in an internationally recognized wetland site. Although the park has many supporters it also suffers from antagonism by the local people who have lost their accessibility to use the area. Finally, it is emphasized that the marshes of Keoladeo are not natural, they are the result of careful management, and their maintenance depends on this continued manipulation.

4. ADDITIONAL COMMENTS

The nomination submitted for Keoladeo was not sufficiently detailed, a fact that several reviewers noted. IUCN has supplemented the submission with additional information from interviews and unpublished sources.

5. EVALUATION

The Keoladeo National Park is an internationally famous wetland for Palaearctic migrant waterfowl and for its large congregations of non-migratory resident breeding birds. The existence of the resource system on which this spectacle is based is dependent on the hand of man and demonstrates what can be accomplished for conservation through his judicious intervention. The park receives much publicity and is a focal point for visitors who are attracted for the birdlife. Keoladeo is one of the most important bird habitats in the Indomalayan Realm and thus meets category iv.

6. RECOMMENDATIONS

Keoladeo National Park should be added to the World Heritage List. The Committee should commend and encourage the Government of India to continue its improvements to management of the site.