

# INDIA

## Keoladeo

### National Park



© UNESCO

#### II.1 Introduction

**Year of Inscription** 1985

#### Organisation Responsible for the Report

- Department of Forests & Wildlife  
Bharatpur 321 001  
State of Rajasthan  
India

#### II.2 Statement of Significance

**Inscription Criteria** N iv

#### Statement of Significance

- Proposed as follows:  
"Ornithologically, the park assumes significance in two respects – One, because of its strategic location it is a staging ground for Palaearctic migratory waterfowl... In addition, the wetland is a wintering area for massive congregations of a large diversity of waterfowl (about 120 species)... [including] the rare and endangered Siberian crane."

#### Status of Site Boundaries

- Borders and buffer zone of the property are considered adequate.

#### II.3 Statement of Authenticity/Integrity

#### Status of Authenticity/Integrity

- The WH value is considered to have been maintained. No changes are foreseen.
- The KNP "is dependent on the hand of man and demonstrates what can be achieved for conservation... Keoladeo is one of the most important bird habitats in the Indo Malayan realm."

#### II.4 Management

#### Administrative and Management Arrangements

- The protection accorded by the State to the habitat is of the highest order available for a natural area under the existing legal framework.
- Furthermore, Art 51-A(g) of the Indian Constitution states that it is the duty of every citizen to demonstrate compassion for living creatures.

- In the current management plan (2002-2006), "emphasis has been laid on research and monitoring so that continuity of information is maintained and management interventions are better targeted."

#### Present State of Conservation

- Water is the essence of the wetland value of Keoladeo in the arid state of Rajasthan. Government orders have been issued to ensure a guaranteed supply of water to the park on a priority basis.
- Water hyacinth, an invasive weed, choked up the water body in 1999-2000, and must be manually removed on a regular basis.
- Emergent vegetation, mainly *Paspalum distichum*, spread following the ban on entry of water buffaloes in 1982. Grass permits have now been granted for Rs15 to villagers for four months to control vegetation and collect grasses for thatch (a fire hazard).

#### Staffing and Training Needs

- 126 staff are employed divided between wildlife and tourism responsibilities.
- Staffing level is considered adequate.
- Training needs are identified in 19 areas including eco-restoration works, census operations, wildlife health techniques, and computer applications.

#### Financial Situation

- The main sources of funding come from the Central and State Government. No figures supplied.
- Funding is considered inadequate.
- Entrance tickets generated 7.68 million rupees (US\$ 161,235) in 2001-02, and have a 'surcharge' to foster eco-development works in the surrounding villages (yet to be implemented).
- Funding from Swarovski & Co for US\$ 450,000 for a period of 3 years to provide an interpretation centre.
- \* International Assistance from WHF as follows: (i) 1996, US\$30,000 Training on humid zones habitat.

#### Access to IT

- 1 PC with internet access. No GIS capacity.

**Visitor Management**

- Detailed annual visitor statistics are supplied since 1988 itemising Indian, foreign and 'student' visitors. The total varied between 82,126 and 126,559.
- Nature guides and rickshaw pullers have been trained in wildlife interpretation. The dept. also owns electric vans (currently out of order). Benches, toilets and boating facilities are also available.
- Tourists are given educational materials (leaflets) and showed a film entitled 'Birds of the Indian Monsoon' in the Dr Salim Ali Interpretation Centre.
- There is an identified need for a better upkeep of roads and a "full fledged interpretation officer".
- The management plan incorporates bird watching fairs, school trips, and adventure camps.

**II.5 Factors Affecting the Property**

**Threats and Risks**

- Water quality: the catchment area brings in a lot of fertilizers and insecticides from agricultural land.
- Water quantity: the 'Ajan Bandh' temporary reservoir stores surplus monsoon water 500m southwest of the park. Irrigation for farmland increases the pressure.
- Tourism pressure: littering, overcrowding on holidays, and excessive disturbance.

**Counteractive Plans**

- The dangers that "threaten or may threaten the property" are discussed in the management plan.
- In 1991, a meeting was held to ensure that adequate water is released to the Ajan Bandh reservoir in time for the bird breeding season.
- In 2001, the Principal Secretary of the State further negotiated the diversion of excess water from the Pachna dam to the park.

**II.6 Monitoring**

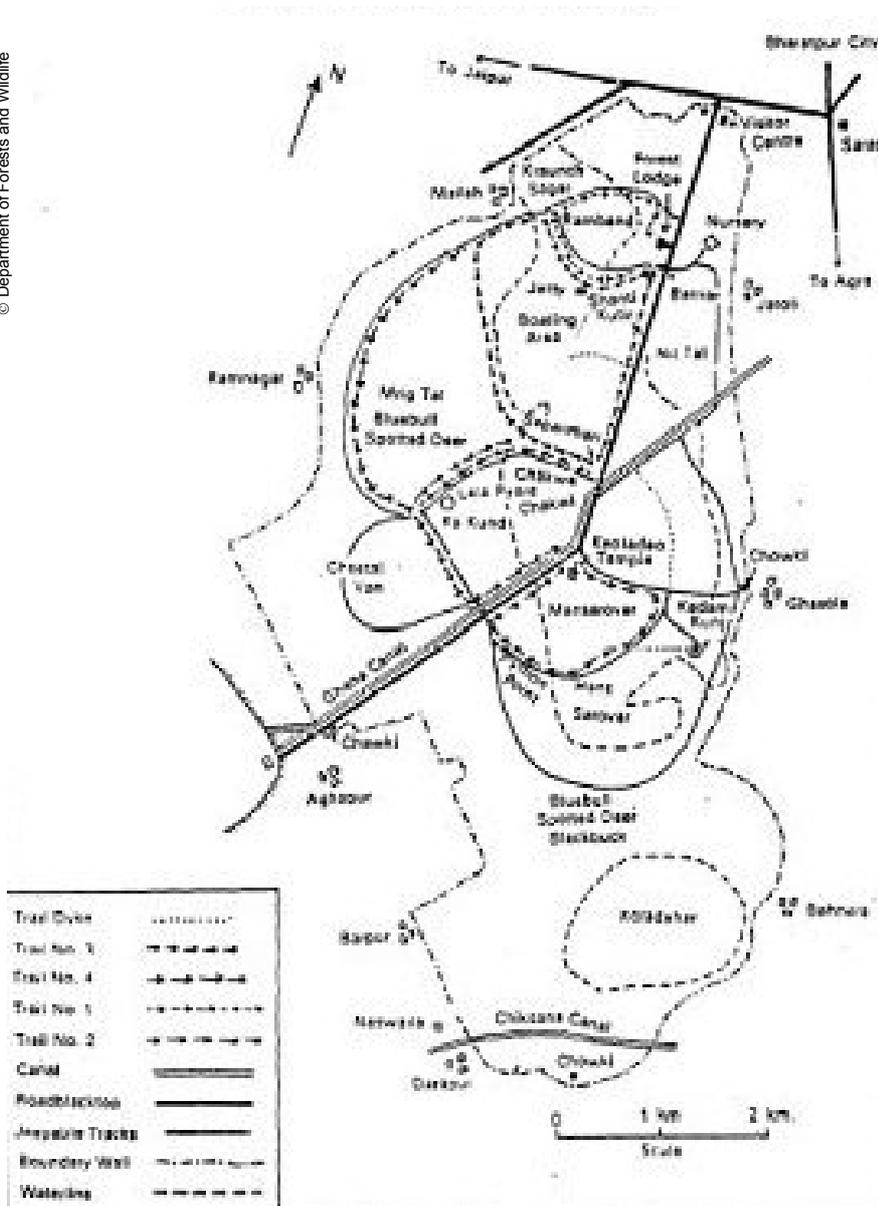
**Monitoring Arrangements**

- A formal monitoring system exists for the heronry count, waterfowl count, monitoring of python holes, meteorological data, chemical changes in water quality, and animal surveys. Partners include the Bombay Natural History Society and WWF-India.
- The Mathura Oil company assesses the levels of SO2 in the air which have been negligible.
- All other polluting industries have been shifted far from the park, as the park also falls within the trapezium zone demarcated to protect the Taj Mahal.

**Monitoring Indicators**

- Ecosystem health indicators are: (i) amount of water; (ii) census counts; (iii) vegetation surveys; and (iv) overall health of wild animals.

© Department of Forests and Wildlife



Keoladeo National Park Boundaries and Tracks

## II.7 Conclusions and Recommended Actions

### Conclusions and Proposed Actions

- Alternative sources of water to augment the water available to the park are being considered.
- “Another issue of concern is the protection awarded to the birds on their flight here. As the migratory birds do not breed here it is very essential to protect the breeding sites and the birds’ flyway.” For this, the authorities advise the creation of an international “flyway protected area network”.
- An integrated pest management programme based on methods of bio control and compost farming needs to be envisaged and put in place.
- Support of WHF may be required for research and information systems based on GIS .
- Research material: The park administration is collecting copies of research available on the park. One of the pioneering studies in the field of wetland ecology was conducted by the Bombay Natural History Society for 10 years with financial assistance from US Fish & Wildlife service through the Indian Ministry of Environment & Forests. Data was generated on the structure and basic functioning of water budgeting, water quality, macrophytic primary productivity, seasonal and annual fluctuation of plankton, invertebrates, fish, birds and mammals. Decomposition of some of the major weeds and the resultant chemical changes in the quality of water were also studied. Various management techniques were experimented upon for controlling wetland vegetation.

### \* State of Conservation Reports

1997 Bureau CONF.204/2B The bureau recalled that the WH property of Keoladeo was a wintering ground for several important species of migratory birds, including Siberian cranes, and had been recognized as a wetland of international importance under the RAMSAR Convention. Records maintained by Park management indicated that the wintering population of Siberian cranes, estimated at about 38 in 1985-86, had dropped to 5 in 1992-93; and to none in 1993-95. In the late 1980s, IUCN expressed concerns regarding the decrease in Siberian cranes in Keoladeo, and the over-growth of grasses with an adverse effect on their breeding habitat. In January 1997, however, participants at the meeting of the South Asian World Natural Heritage Sites undertook a field visit to Keoladeo and observed 3 Siberian cranes.

Recognizing that the decrease in Siberian cranes was attributable to the intensity of hunting and other factors along the migratory route, the Indian authorities signed a Memorandum of Understanding (MOU) established among 9 countries (Afghanistan, Azerbaijan, India, Islamic Republic of Iran, Kazakstan, Pakistan, Russian Federation, Turkmenistan and Uzbekistan) whose territories constitute the range of the central and western Asian populations of the Siberian crane. Established under the auspices of the Convention of Migratory Species of Wild Animals (CMS) hosted by UNEP, and signed by the International Crane Foundation (ICF) and the Wild Birds Society of Japan, the MoU action plan sets out to: (i) release captive-bred Siberian cranes to augment wild populations; and (ii) capture Siberian cranes for the deployment of satellite transmitters to track Crane migratory routes. At the site level, the management introduced a controlled burning & cutting regime for grasses, and closed the Park for grazing by cattle. A scientific compilation on all the RAMSAR sites of India, including the Keoladeo WH Area, was also published by WWF-India.

The Bureau urged the Centre to maintain communications with the Secretariat of the CMS in order to follow progress in the implementation of the action plan.