



NATIONAL TIGER CONSERVATION AUTHORITY / PROJECT TIGER

Statutory Body under the Ministry of Environment, Forests and Climate Change
(Government of India)

Kanha Tiger Reserve

Located in the “Maikal” ranges of the Satpuras, and falling in the Mandla and Balaghat districts of Madhya Pradesh, Kanha Tiger Reserve is internationally renowned for its typical Central Indian floral and faunal attributes. Apart from supporting a viable population of the tiger, the National Park has also distinguished itself in saving the highly endangered hard ground barasingha (*Cervus duvauceli branderi*) from extinction, and has the unique distinction of harbouring the last world population of this deer species.

The Tiger Reserve with an area of 2074 sq. km. is comprised of two divisions, namely the National Park of 940 sq. km. (including 917.43 sq. km. of critical tiger habitat) and the Buffer Zone (Multiple Use Area) of 1134 sq. km. Besides, there is also Phen Wildlife Sanctuary (110 sq. km.), a Satellitic Micro Core under the unified control of the Field Director, Kanha Tiger Reserve

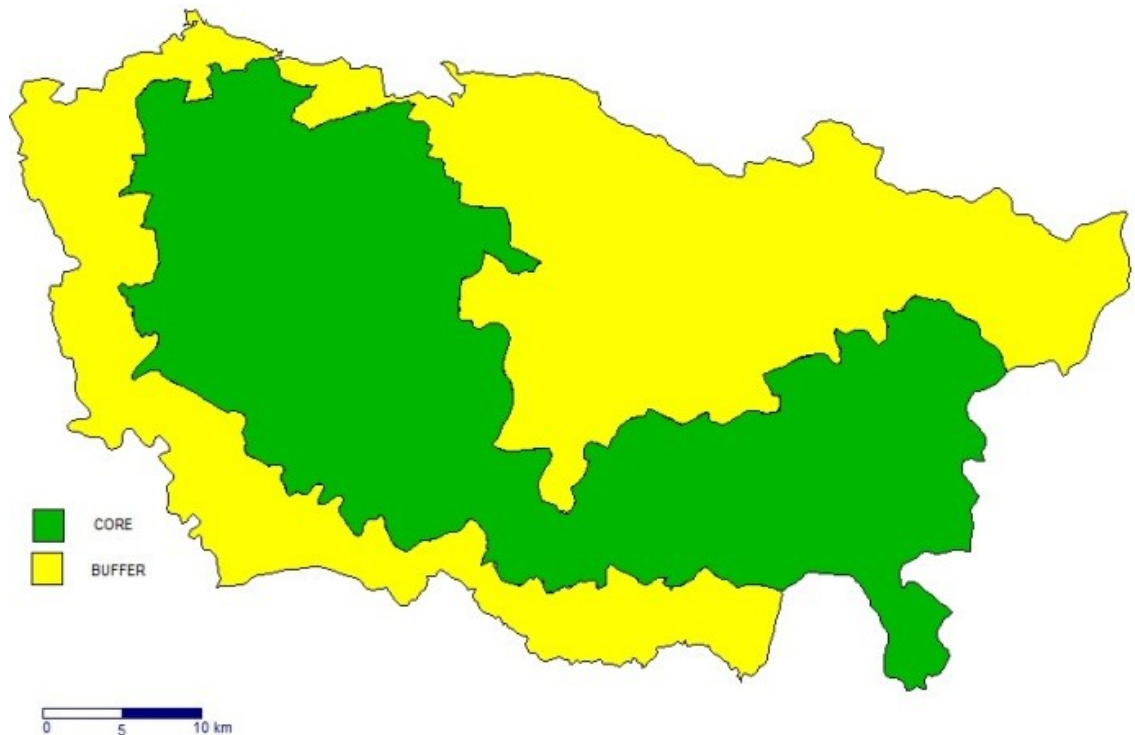
Area of the Tiger Reserve

Core/ Critical tiger habitat	:	917.43 sq. km.
National Park	:	22.57 sq. km.
Buffer Zone	:	1134.31 sq. km.
Total	:	2074.31 sq. km.

Location

Latitude	:	22° 03' 06.8” to 22° 27' 51.2” N
Longitude	:	80° 25' 43.6” to 81° 07' 15.7” E

Map



Habitat Attributes

The physiography of the Tiger Reserve is characterized mainly by forested shallow undulations, hills with varying degrees of slopes, plateaus, and valleys. These physiographical features along with sal and miscellaneous crops offer unique settings and ecotones, giving rise to diverse types of wildlife habitat and form ideal niches for various species of plants and animals. The above factors are responsible for a wide range of floral and faunal diversity and habitat types in the Tiger Reserve.

Flora

The main vegetation types are sal and miscellaneous forests, and the floral diversity is comprised of around 850 species of 10 varieties of angiosperms belonging to 506 genera and 134 families, and 22 species of Pteridophytes belonging to 14 genera and 14 families. The above floral diversity also includes 2 species of Gymnosperm belonging to 2 genera and 2 families. The above flora of the Tiger Reserve also includes around 50 species of aquatic plants and 18 species of rare plants.

Fauna

The heterogeneity and diversity of habitats influence the local distribution of mammals. The presence of the mosaics of meadows within the woodland, and large expanses of herbage availability, also have a bearing on the aggregations of herbivores.

The central meadows of Kanha, locally known as *maidans*, are rich in ungulates and other fauna. This high prey density area is encompassed on three sides by the ridges of the Deccan trap, leaving

a gap only in the North towards Sonf. This topographical peculiarity poses a physical barrier to animal movement from the central meadows. Likewise, the ridges extending along the eastern boundary of the reserve impede animal movement between the eastern and western portions of the park. Such topographical attributes foster pockets of high and low prey density areas within the Protected Area, resulting in unequal concentrations of tigers and co-predators in different portions of the habitat.

The Tiger Reserve also supports an endemic population of the hard ground barasingha (*Cervus duvauceli branderi*), whose commendable resurrection over the years has become a very inspiring success story in wildlife conservation. Besides, a viable population of the highly endangered tiger, the flagship species, is also being conserved most successfully in the Core Zone. The protected area also harbours a wide range of faunal species, some of which figure prominently in the IUCN Red List of Threatened Species. Some of these species are *Cuon alpinus*, *Melursus ursinus*, *Lutra perspicillata*, *Panthera pardus*, *Panthera tigris tigris*, *Bos gaurus* and *Python molurus*. There are 43 species of mammals and 26 of reptiles. The Tiger Reserve offers an ideal habitat for a variety of avifauna, reptiles and insects.

There are many species of amphibians, fishes, arachnids, and molluscs. The main species of reptiles also include spectacled cobra, common krait, russell's viper, saw-scaled viper, and monitor lizard. The copper-headed snake is also sometimes seen, which is rare for the climate of the Park

Tiger Status

The Tiger Reserve has supported a viable population of tigers for the past many years. So far, no inexplicable instance of any serious downward fluctuation in tiger numbers has been recorded. The topography of Kanha, with its several vegetal cover types, has given rise to different settings and transitions, with good perennial water holes and rocky outcrops, with natural shelters and dens. All these physiographic and habitat attributes have made the Tiger Reserve, specially the Core Zone, a wonderful tiger nursery. Effectively juxtaposed and interspersed, these wildlife habitats have sustained a large number of ungulates, a good prey base for tigers. Besides, stringent and pro-active protection and adaptive management practices over the years have also ensured outstanding natal areas for tigers within these habitats that have since long witnessed a huge number of tiger cubs reared to adulthood and integrated into this wildlife ecosystem.

As per the 2010 country level estimation of tigers, co-predators and prey base, the Tiger Reserve supports 60 (45-75) tigers. However, the tiger population over the years showed positive trends and as per the 2013 results of Phase-IV tiger monitoring there are 96 tigers in the Tiger Reserve.

Corridor

Kanha Tiger Reserve has a long conservation history and has been identified as an important source population of tigers. It has an active corridor between Kanha and Pench Tiger Reserves. Kanha is also connected with the Achanakmar Tiger Reserve of Chhattisgarh State. The State of Madhya Pradesh has taken an initiative to prepare a generic plan for the Kanha-Pench corridor with a view to promote ecologically sustainable land use in the corridor. To reduce the biotic pressure on the

forests, emphasis has also been given on addressing the livelihood issues of the communities living in and around the corridor.

Managerial Issues

The Tiger Reserve is located in one of the most important tiger landscapes in the country. As it is a high density tiger area and, besides at least 7 ungulate species, it also supports an endangered small population of the hard ground barasingha, wildlife and habitat protection is the most important issue facing the Reserve Management. Improvement of grassland habitat sustaining thousands of herbivores, specially the hard ground barasingha, an exclusive graminivore, is another important issue. Phase-IV tiger monitoring and M-STrIPES in the Tiger Reserve are also major issues. Besides, some other managerial issues include mainstreaming of wildlife in the Buffer Zone, voluntary village relocation, tourism management as per the NTCA guidelines, implementation of Tiger Conservation Plan in the Buffer Zone, wildlife health management and timely immunization of village cattle and ensuring public support for conservation.

Good Practices

The Tiger Reserve Management undertakes a wide range of management practices for the conservation of the wildlife ecosystem. Some good practices having an effective bearing on management are listed as under:

- **Voluntary Village Relocation from the Core Area:** There were as many as 45 villages in the old National Park area (now notified as the core/critical tiger habitat). Over the years, 32 forest villages have been voluntarily relocated outside the core area making the additional habitat available for the wild ungulates specially the swamp deer, besides reducing human-wildlife interface problems.
- **Core-Buffer Strategy:** The Tiger Reserve has over the years fostered the core and buffer units in a mutually complementary manner. With the recent addition of a part of the Motinala forest range to the Buffer Zone, the Phen Wildlife Sanctuary now lies contiguous to it. In this way, parts of the core and the buffer and the Phen Wildlife Sanctuary are now directly linked in the landscape.
- **M-STrIPES Monitoring:** In the entire Central Indian landscape, Kanha is probably the only Tiger Reserve undertaking M-STrIPES monitoring. The frontline staff has been adequately trained for collecting relevant data for the software and analysis.
- **Phase-IV Monitoring:** As per the NTCA guidelines, the Phase-IV monitoring is regularly undertaken by trained officers/ frontline in peak winter and summer seasons. These data are analyzed for estimates of tigers, leopards and ungulates.
- **Active Wildlife Management:** Kanha Tiger Reserve has taken a lead in active wildlife management. As many as 50 gaur were translocated to Bandhavgarh Tiger Reserve where they had locally gone extinct. The gaur population in Bandhavgarh is doing well. For the first time in the history of conservation, orphaned tiger cubs were brought up in semi-wild

environment and eventually released back in the wild. The tigress released in Panna Tiger Reserve has successfully bred in the wild. Similarly, two tigers have been released in the wild in Kanha Tiger Reserve. Blackbuck has also been reintroduced in Kanha Tiger Reserve.

- **Swamp Deer Conservation:** The swamp deer (*Cervus duvauceli branderi*), the only surviving population in the world, was dwindling in Kanha Tiger Reserve till early seventies. The concerted effort by the management the population has responded well to the protection strategies, habitat management and water regime improvement interventions. The swamp deer population is now relatively safe and well distributed in all the ranges of the Core/Critical Tiger Habitat.
- **Recycling of Funds Generated by Tourism:** The fund, known as the “*Kanha Vikas Nidhi*”, is used for the development of tourism infrastructure in the Tiger Reserve. Besides, every year, a certain percentage of this fund is also used for the development of forest villages in the Tiger Reserve. The main beneficiaries, in order of preference, are those forest villages which have been relocated outside the Tiger Reserve. After these forest villages come other forest villages of the National Park and Buffer Zone followed by select revenue villages. This fund is used for the development of these villages, which include a host of rural upliftment activities. Besides, needy villagers are also given soft-loans from this fund to set up their own small businesses.
- **Kanha Workers Sahkari Sakh evam Kamgar Samiti Maryadit:** One of its own kind, the Kanha Workers *Sahkari Sakh evam Kamgar Samiti Maryadit*, Kisli was formed under the Society Act, 1960 for the welfare of the Kanha staff. Every serving individual of the Tiger Reserve, including daily wagers, are the members of this Society. The members have to pay annual membership fees of the Society. As service conditions, specially in the Core Zone, are very difficult, and most are non-family postings at remotely located patrolling camps, the staff sometimes has to go 20–25 km. for weekly market to buy household goods. In this way, the Society provides the remotely placed wildlife personnel with the essentials of the household at concessional prices. The Society also gives almost interest free soft-loans to the frontline staff and daily wagers on easy installments. Besides, scholarships for topper students have also been arranged. Moreover, the Society also caters to the needs of tourists at Khatia and Mukki entry points of the Core Zone. It makes arrangements for breakfast, meals and basic daily needs on payment basis at both the entry points. Through its sale counters, the Society also deals in mementos and other reminiscences of the Tiger Reserve, which include: T-shirts, caps, key rings, badges, stickers, cards, posters, the Kanha literature etc. The total assets of the society is around Rs. 1.75 crores.
- **Staff Welfare Programme:** The Reserve Management also undertakes frequent staff welfare programmes through the MP Tiger Foundation Society to make the lives of the frontline staff and their families as comfortable as possible. Some of these welfare programmes include: construction of hostels for school children outside the Tiger Reserve, school van for children, insurance for frontline staff and daily wagers, special health camps

for check-up and treatment, posting of contractual physician for the staff, special financial aid for seriously injured/ ill employee, arrangement of ambulances for sick employees, provision of rain suites, winter ware, long boots, water filter, cycles and trunk etc. for the frontline staff, study tours and periodic awards of excellence for the staff.